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Factors related to internalized stigma in Colombian cocaine users

Factores relacionados con estigma internalizado en consumidores de cocaína colombianos

Carlos Arturo Cassiani-Miranda ¹, Andrés Felipe Tirado-Otálvaro ², Yinneth Andrea Arismendy-López ³, Andrea Carolina Duran-Bedoya ⁴

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ABSTRACT

Introduction: Studies on internalized stigma in people with exclusive cocaine use are scarce. **Objective:** This study aimed to explore factors related to internalized stigma in people with exclusive or preferred cocaine use in Colombia. **Methods:** This was a cross-sectional study of adults diagnosed with cocaine use disorder. The Internalized Stigma of Mental Illness scale adapted for psychoactive substance users, AWARE 3.0 questionnaire to assess the risk of relapse, SDS scale for the severity of dependence, and PHQ-9 questionnaire for depressive symptoms were applied. Descriptive and correlational analysis was performed. **Results:** It participated in 102 adults between 18 and 58 years (M=29.9, SD=9.9). A direct correlation was found between internalized stigma and the risk of relapse (r_s =0.55, p<0.001), clinically significant depressive symptoms (r_s =0.45, p<0.001), and severity of dependence (r_p =0.38, p<0.001). **Conclusions:** Internalized stigma among cocaine users is related to the risk of relapse, depressive symptoms, and severity of dependence.

Keywords: Social stigma; Cocaine-related disorders; Risk factors; Colombia.

RESUMEN

Introducción: los estudios sobre el estigma internalizado en personas con consumo exclusivo de cocaína son escasos. Objetivo: explorar los factores relacionados con el estigma internalizado en personas con uso exclusivo o preferente de cocaína en Colombia. Método: Estudio transversal con adultos diagnosticados con trastorno por consumo de cocaína. Se aplicó la escala Estigma Internalizado de Enfermedad Mental adaptada para usuarios de sustancias psicoactivas, el cuestionario AWARE 3.0 para evaluar el riesgo de recaída, la escala para la severidad de la dependencia y el cuestionario PHQ-9 para síntomas depresivos. Se realizó análisis descriptivo y correlacional. Resultados: Participaron 102 adultos entre 18 y 58 años (M=29,9; DE=9,9). Se encontró una correlación directa entre el estigma internalizado y el riesgo de recaída (rs=0,55; p<0,001), los síntomas depresivos clínicamente significativos (rs=0,45; p<0,001) y la severidad de la dependencia (rp=0,38; p<0,000). Conclusiones: el estigma internalizado entre los usuarios de cocaína se correlaciona con el riesgo de recaída, síntomas depresivos y severidad de la dependencia.

Palabras clave: estigma social; trastornos relacionados con la cocaína; factores de riesgo; Colombia.

¹ Universidad de Santander. Bucaramanga, Colombia. Email: Kassio30@hotmail.com - https://orcid.org/0000-0002-2288-1027

² Universidad Pontificia Bolivariana. Medellín, Colombia. Email: felipe.tirado@upb.edu.co - https://orcid.org/0000-0001-9010-1494

³ Universidad de Santander. Bucaramanga, Colombia. Email: Yianar17@gmail.com - https://orcid.org/0000-0002-7363-6777

⁴ Universidad Pontificia Bolivariana. Medellín, Colombia. Email: andrea.duran606@gmail.com - https://orcid.org/0009-0003-2340-3355

INTRODUCTION

Internalized stigma is the direct result of public stigmatization of the individual so that the negative attributes assigned by a dominant group are internalized and applied to themselves by the stigmatized subjects. ^{1,2}

Psychoactive substance use disorders are a highly stigmatized condition due to the relationship between substance use and social, criminal, economic, and health problems.^{3,4} As a result, people with problematic psychoactive substance use often internalize perceptions and behaviors of shame, guilt, and hopelessness toward themselves.^{5,6}

Different stigma levels depend on the type of substance used.⁷ Specifically, evidence suggests that the stigma associated with illicit psychoactive substance use is associated with a greater sense of rejection so that users of such substances tend to hide their use.⁸ Internalized stigma in people who use this type of substance is a significant barrier that limits the utilization of health services,^{3,9} affects adherence,¹⁰ favors relapse,¹¹ and reduces the likelihood of overall recovery.¹²

The psychological consequences of internalized stigma in people with substance use disorder, loss of identity and hope, decreased self-esteem, self-concept, and self-efficacy stand out, as well as negative psychological states that decrease the quality of life generate avoidant coping and lower efficacy in the face of rejection,³ issues linked to impaired social functioning, feelings of guilt, shame, anxiety,⁵ and depression.^{12,13}

Although research on stigma has been growing in recent years, studies on internalized stigma in users with exclusive cocaine use are scarce. There are only reports in the literature indicating that stigma levels are higher in users of methamphetamines, ¹⁴ heroin, ³ and crack ¹⁵ compared to cocaine users, owing to the differences between these substances, given that the former has a connotation of greater dangerousness and street habituation. In contrast, cocaine users are perceived as wealthy people with a higher educational level and less physical impairment that allows them to hide their consumption easily, ⁷ which is different from the Colombian context, where cocaine use has spread to middle and lower-class people due to the increase in production and micro-trafficking, which has significantly reduced prices and favored access to a more significant number of people, regardless of their social class. ^{16,17}

Internalized stigma is associated with psychoactive substance use, depressive symptoms, stress, ¹⁸ greater severity of dependence, and lower self-esteem. ¹⁹ Although internalized stigma may be a factor associated with poorer treatment outcomes in substance users attending primary care services, ²⁰ no studies have examined internalized stigma in people with exclusive cocaine use. This study aimed to explore factors related to internalized stigma in people with exclusive or preferred cocaine use in Colombia.

METHOD

Study design and participants

This was a cross-sectional study of adult patients diagnosed with a cocaine use disorder, hospitalized or ambulatory, according to the psychiatric diagnosis recorded in the clinical history and receiving treatment in addiction units in Bucaramanga, Colombia.

A sample size was established for convenience. 1) voluntarily request intramural or outpatient treatment in

a Comprehensive Care Unit for Addictive Behaviors in a hospital in Bucaramanga (Colombia) for presenting problems with cocaine use or the exclusive use of cocaine. 2) Initiate treatment at the hospital four weeks before participating in the study, and 3) age \geq 18 years. Patients with psychotic disorders or inability to respond to assessment instruments (due to cognitive impairment or intellectual disability) were excluded.

Measures

Demographic characteristics

The research team designed an ad hoc questionnaire that included age, gender, marital status, education level, income level, and employment.

Internalized stigma

Internalized stigma

The 29-item Internalized Stigma of Mental Illness (ISMI) scale was used to evaluate internalized stigma associated with mental illness.²¹

This scale was translated into Latin American Spanish in Mexico²² and subsequently adapted for substance users in Argentina.²³ The latter study generated a 24-item and 29-item version with acceptable reliability coefficients and factor structure, where the items were grouped into five subscales: alienation, six items; stereotype support, seven items; and perceived discrimination, five items; social isolation, six items; and resistance to stigma: five items. All items were scored on a 4-point Likert scale (1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree). In this study, we used a version adapted in Argentina by Gallo *et al.*²³

Severity of dependence

The Severity of Dependence Scale (SDS) developed by Gossop *et al.*²⁴ was used to measure the psychological components of dependence. This scale consists of five items with a Likert-type response pattern; for the first four items, the response options are "never or seldom" (0), "sometimes" (1), "often" (2), and "always or almost always" (3). For the fifth item, the response options are "not at all difficult" (0), "quite difficult" (1), "very difficult" (2), and "impossible" (3). The total score is obtained by summing the responses, with higher scores indicating a greater severity of psychological dependence. This scale was adapted to Spanish,²⁵ and has shown adequate psychometric properties in national and international validation studies.²⁴⁻²⁶

Risk of relapse

It was assessed using the relapse risk questionnaire AWARE 3.0 abbreviated-12. The AWARE 3.0 relapse cues scale was originally constructed by Gorski *et al.*, ²⁷ initially with 37 items (26 direct and 10 reverse) measuring relapse risk by identifying relapse cues. An adapted version with 28 items (23 direct and five inverse items) was later published by Miller *et al.*, ²⁸ with a Likert-type response pattern from 1 to 7 (1=never, 2=rarely, 3=sometimes, 4=fairly often, 5=often, 6=almost always and 7=always). Solano *et al.* ²⁹ recently developed a 12-item brief version of 240 substance-dependent subjects in Peru that showed a stable one-factor structure. This study used the Solano *et al.* version. ²⁹

Clinically significant depressive symptoms (CSDS)

They were assessed using the Patient Health Questionnaire-9 (PHQ-9), a Likert-type scale of 0 to 3 (0=not at all, 1=several days, 2=more than half of the days, 3=nearly every day). The PHQ-9 is a nine-item depression module of the PRIME-MD, which corresponds to the DSM-IV major depressive episode criteria. 30,31 It can be used either algorithmically to make a probable diagnosis of major depressive disorder or as a continuous measure of scores ranging from 0 to $27.^{31}$ The original version presents adequate internal consistency (Cronbach's α of 0.86-0.89). 31 It has been validated in different cultures and shown to be equal or superior to other measures of depression. 32 In this study, the version validated by Cassiani-Miranda *et al.*28 was used, which showed a Cronbach's alpha of 0.80 and McDonald's omega of 0.81.

Procedure

The patients evaluated were persons attending outpatient or intramural treatment for addictive disorders due to problematic cocaine use, and the evaluators were psychiatrists or psychologists who diagnosed cocaine use disorder with structured interviews according to DSM-5 criteria. The measurement scales were hetero-applied by trained psychologists to avoid difficulties in understanding items.

Data analysis

The information was processed and analyzed using the Jamovi®. Qualitative variables were described using absolute and relative frequencies. In contrast, quantitative variables were presented as mean (M), standard deviation (SD), median (Me), and interquartile range (IQR) according to the distribution of the data.

The correlation between the scores for internalized stigma and the other scales assessed was explored using Pearson's rho (r_p) or Spearman's rho (r_s), according to the data distribution in the Shapiro-Wilk Test.³⁴ A p-value<0.05 was considered significant.

Ethical considerations

Current international standards for human research were considered, participation was voluntary, and participants signed informed consent. This study was approved by the research ethics committee of the university and the hospital where the research was conducted and is part of the project in hospitalized patients of a treatment unit for addictive disorders in Bucaramanga, Colombia, 2019.²⁹

RESULTS

A total of 102 cocaine users between 18 and 58 years of age (M=29.9, SD=9.9), 83.3% male, 90.2% urban, age of onset of use (Me=15, and IQR=14-18) and years of use (Me=11.0, and IQR=7.0-18.0) participated. Demographic variables are presented in Table 1, and scale scores and reliability are presented in Table 2.

Table 1. Demographic and clinical characteristics of the sample.

Variable	n	%
Age (years)		
18-29	54	52.9
30 or more	48	47.1
Gender		

Male	85	83.3
Female	17	16.7
Education		
Less of college	81	80.2
College, university, or postgraduate	20	19.8
Marital status		
Single, separated, or widowed	86	84.3
Stable couple (married or free union)	16	15.7
Social status		_
Low	93	91.2
High	9	8.8
Employee		
Yes	35	34.3
No	67	65.7

Table 2. Scale scores and reliability.

Scale	Range*	Cronbach's α	McDonald's ω
ISMI	46-112* (M=77.1, SD=12.3)**	0.83	0.86
PHQ-9	0-27* (Me=10.0, IQR=4.3-15.0)***	0.86	0.86
SDS	1-15* (M=8.8, SD=3.0)	0.61	0.61
AWARE	5-84* (Me=29.0, IQR=22.0-43.8)***	0.92	0.92

^{*} Minimum and maximum values. ** Average and standard deviation. *** Median and interquartile range.

A direct and positive correlation was found between internalized stigma scores and AWARE 3.0 scores (r_s =0.55, p<0.001), PHQ-9 scores (r_s =0.45, p<0.001), and SDS scores (r_p =0.38, p<0.001).

DISCUSSION

This study showed that in Colombian cocaine users, scores on the internalized stigma scale for psychoactive substance use had a direct correlation with the risk of relapse to substance use, clinically significant depressive symptoms, and severity of dependence.

Regarding relapse risk, in a sample of 300 subjects from Ethiopia, the number of relapses (β =0.183, p<0.01) and medication non-adherence (β =0.084, p=0.02) had a positive correlation with internalized stigma, ³⁵ similar data to those found in our study and which could be explained by the fact that the risk of relapse is related to the severity of dependence.³⁶

Based on previous findings of an association between internalized stigma and depressive symptoms,³⁷ this study corroborates the correlation between internalized stigma and CSDS with moderate to high coefficients.

The correlation of internalized stigma with depression could be explained by the fact that the process of internalizing stigma leads to self-image being continually subjected to negative judgment and self-criticism, resulting in a highly impaired self-concept and lower self-esteem, as well as a lower perception of self-efficacy, ³⁹⁻⁴¹ also causing higher levels of hopelessness, ⁴² all of which are considered reliable indicators of a major depressive episode. ⁴³

In this study, the internalized stigma score was significantly correlated with greater severity of dependence, which is consistent with other analyses, where each stage of self-stigma was strongly related to the severity of alcohol dependence.³⁷

Although the sociodemographic variables showed no association with internalized stigma, a study of substance users in Brazil revealed that the only variable that showed a difference between means was employment status (t=-2.06, p<0.05) and employment (t=-2.06, p<0.05), indicating that unemployed people have higher self-stigma than people who are working. This finding may be because employed people have more significant inclusion in a social environment, which promotes a higher quality of social interaction.⁴⁴

This research is the first in Colombia to examine some variables related to internalized stigma in cocaine users; however, our findings must be discussed considering the following limitations. First, our sample consisted predominantly of patients treated in a detoxification unit or on an outpatient basis, which cannot be considered representative of all people with dependence or a predilection for cocaine derivate use. On the other hand, hospitalized persons who access detoxification usually recognize the problem and are motivated to change, which may be an indicator that modifies the internalization of the stigma.

Another limitation is the high proportion of men and the nature of cross-sectional studies, so they can only be applied to the male gender, considering the impossibility of establishing causal associations. Thus, a prospective analysis of the prognostic influence of internalized stigma on future cocaine-derivative use behavior is required to determine further the clinical relevance of self-stigma on psychoactive substance use in general.

Finally, this study did not address other variables of interest associated with internalized stigma, such as the relationship between self-stigma and cocaine-related self-efficacy, 41,45 or other constructs indicative of the negative consequences of self-stigma, such as shame, 10 which represents a challenge for future studies. Prospective studies assessing the influence of internalized stigma on cocaine use are warranted and should include untreated alcohol-dependent individuals, more individuals receiving outpatient treatment, and more women.

CONCLUSIONS

There is a positive correlation between internalized stigma and the risk of relapse, depressive symptoms, and severity of dependence. These results highlight the need to identify variables that determine internalized stigma in people who use substances to design interventions aimed at reducing self-stigma in this population.

The current is the first study in Colombia to examine factors related to internalized stigma in cocaine users. Thus, it contributes to advancing knowledge on this topic and favors the design of future interventions to reduce stigma in this population. From a clinical practice perspective, treatment teams for individuals who meet the criteria for cocaine use disorder should consider internalized stigma as one of the key variables in treatment outcomes, as it is associated with higher levels of perceived stress, more significant psychological morbidity, poor treatment adherence, and an increased risk of relapse.³⁸

CONFLICT OF INTEREST STATEMENT

The authors report no actual or potential conflicts of interest.

AUTHORS CONTRIBUTION

CACM participated in the conceptualization, data curation, investigation, methodology, project administration, supervision, validation, original draft, review, and editing.

AFTO participated in the conceptualization, methodology, validation, writing - original draft, writing - review, and editing.

YAAL participated in the conceptualization, investigation, validation, original draft, review writing, and editing.

ACDB participated in the conceptualization, investigation, validation, original draft, review writing, and editing.

REFERENCES

- 1. Haghighat R. A unitary theory of stigmatisation: Pursuit of self-interest and routes to destigmatisation. Br J Psychiatry. 2001;178:207-15. https://www.doi.org/10.1192/bjp.178.3.207
- 2. Felicissimo FB, Ferreira GCL, Soares RG, Silveira PS da, Ronzani TM. Estigma internalizado e autoestima: uma revisão sistemática da literatura. Psicol Teor E Prática. 2014;15:116-29.
- 3. Sarkar S, Balhara Y, Kumar S, Saini V, Kamran A, Patil V, et al. Internalized stigma among patients with substance use disorders at a tertiary care center in India. J Ethn Subst Abuse. 2019;18:345-58. https://www.doi.org/10.1080/15332640.2017.1357158
- 4. Yang L, Wong LY, Grivel MM, Hasin DS. Stigma and substance use disorders: an international phenomenon. Cur Op Psychiatry. 2017;30:378-88. https://doi.org/10.1097/YCO.000000000000351
- 5. Can G, Tanrıverdi D. Social functioning and internalized stigma in individuals diagnosed with substance use disorder. Arch Psychiatr Nurs. 2015;29:441-6. https://www.doi.org/10.1016/j.apnu.2015.07.008
- Crapanzano KA, Hammarlund R, Ahmad B, Hunsinger N, Kullar R. The association between perceived stigma and substance use disorder treatment outcomes: A review. Subst Abuse Rehabil. 2019;10:1. https://www.doi.org/10.2147/SAR.S183252
- 7. Crawford ND, Rudolph AE, Jones K, Fuller C. Differences in self-reported discrimination by primary type of drug used among New York City drug users. Am J Drug Alcohol Abuse. 2012;38:588-92. https://www.doi.org/10.3109/00952990.2012.673664
- 8. Palamar JJ. A pilot study examining perceived rejection and secrecy about illicit drug use and associated stigma. Drug Alcohol Rev. 2012;31:573-9. https://www.doi.org/10.1111/j.1465-3362.2011.00406.x
- 9. Gupta P, Panda U, Parmar A, Bhad R. Internalized stigma and its correlates among treatment seeking opium users in India: A cross-sectional observational study. Asian J Psychiatr. 2019;39:86-90. https://www.doi.org/10.1016/j.ajp.2018.12.004
- 10. Luoma JB, Kulesza M, Hayes SC, Kohlenberg B, Larimer M. Stigma predicts residential treatment length

- for substance use disorder. Am J Drug Alcohol Abuse. 2014;40:206-12. https://www.doi.org/10.3109/00952990.2014.901337
- 11. Khazaee-Pool M, Pashaei T, Nouri R, Taymoori P, Ponnet K. Understanding the relapse process: Exploring Iranian women's substance use experiences. Subst Abuse Treat Prev Policy. 2019;14:27. https://www.doi.org/10.1186/s13011-019-0216-3
- 12. Hammarlund R, Crapanzano KA, Luce L, Mulligan L, Ward KM. Review of the effects of self-stigma and perceived social stigma on the treatment-seeking decisions of individuals with drug-and alcohol-use disorders. Subst Abuse Rehabil. 2018;9:115-36. https://www.doi.org/10.2147/SAR.S183256
- 13. Latkin CA, Gicquelais RE, Clyde C, Dayton L, Davey-Rothwell M, German D, et al. Stigma and drug use settings as correlates of self-reported, non-fatal overdose among people who use drugs in Baltimore, Maryland. Int J Drug Policy. 2019;68:86-92. https://www.doi.org/10.1016/j.drugpo.2019.03.012
- 14. Deen H, Kershaw S, Newton N, Stapinski L, Birrell L, Debenham J, et al. Stigma, discrimination and crystal methamphetamine ('ice'): Current attitudes in Australia. Int J Drug Policy. 2021;87:102982. https://www.doi.org/10.1016/j.drugpo.2020.102982
- 15. Bard ND, Antunes B, Roos CM, Olschowsky A, de Pinho LB. Stigma and prejudice: the experience of crack users. Rev Lat Am Enfermagem. 2016;24:e2680. https://www.doi.org/10.1590/1518-8345.0852.2680
- 16. Oficina de las naciones unidas contra la droga y el delito. Monitoreo de territorios con presencia de cultivos de coca 2023. Naciones Unidas; 2023.
- 17. Pérez GA, Villamil SA, Mejía T J, Scoppetta Díaz-Granados O. Consumo de sustancias psicoactivas en Colombia: una perspectiva histórica. 1st ed. CIB Fondo Editorial; 2024.
- 18. Wilson JD, Lanzkron S, Pecker LH, Bediako SM, Han D, Beach MC. Psychosocial and clinical risk factors associated with substance use in observational cohort of patients with sickle cell Disease. Subst Use Misuse. 2020;55:2205-12. doi:10.1080/10826084.2020.1797807
- 19. Cama E, Brener L, Wilson H, von Hippel C. Internalized stigma among people who inject drugs. Subst Use Misuse. 2016;51:1664-8. doi:10.1080/10826084.2016.1188951
- 20. Kulesza M, Watkins KE, Ober AJ, Osilla KC, Ewing B. Internalized stigma as an independent risk factor for substance use problems among primary care patients: Rationale and preliminary support. Drug Alcohol Depend. 2017;180:52-5. doi:10.1016/j.drugalcdep.2017.08.002
- 21. Ritsher JB, Otilingam PG, Grajales M. Internalized stigma of mental illness: psychometric properties of a new measure. Psychiatr Res. 2003;121:31-49. https://www.doi.org/10.1016/j.psychres.2003.08.008
- 22. Mora-Rios J, Bautista-Aguilar N, Natera G, Pedersen D. Adaptación cultural de instrumentos de medida sobre estigma y enfermedad mental en la Ciudad de México. Salud Mental. 2013;36:9-18.
- 23. Abeldaño RA, del Valle Gallo V, Burrone MS, Fernández AR, Boyd JE. Psychometric properties of the Internalized Stigma of Mental Illness scale adapted for people who use psychoactive substances. Rev Fac Cienc Med Cordoba. 2017;74:170-5. https://www.doi.org/10.31053/1853.0605.v74.n2.16892

- 24. Gossop M, Best D, Marsden J, Strang J. Test-retest reliability of the severity of dependence scale. Addiction. 1997;92:353. https://www.doi.org/10.1111/j.1360-0443.1997.tb03205.x
- 25. González Sáiz F, Salvador Carulla L. Estudio de fiabilidad y validez de la versión española de la escala Severity of Dependence Scale (SDS). Adicciones. 1998;10:223-32.
- 26. Castillo I, González-Saiz F, Trujols J, Lozano O. Valoración psicométrica de la escala de severidad de la dependencia a partir de dos modelos de análisis: la teoría clásica de los test y la teoría de respuesta al ítem. Bolet Psicol. 2008;93: 41-57
- 27. Gorski TT, Miller M. Staying sober: A guide for relapse prevention. Hazel Crest: Independence Press; 1986.
- 28. Miller WR, Harris RJ. A simple scale of Gorski's warning signs for relapse. J Stud Alcohol. 2000;61:759-65. https://www.doi.org/10.15288/jsa.2000.61.759
- 29. Solano C, Copez-Lonzoy A. Análisis preliminar del cuestionario señales de alerta de recaída (AWARE) en drogodependientes peruanos. Interacciones. 2017;3:87-94. https://www.doi.org/https://doi.org/10.24016/2017.v3n2.65
- 30. Kocalevent RD, Hinz A, Brähler E. Standardization of the depression screener patient health questionnaire (PHQ-9) in the general population. Gen Hosp Psychiatry. 2013;35:551-5. https://www.doi.org/10.1016/j.genhosppsych.2013.04.006
- 31. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. Gen Intern Med. 2001;16:606-13. https://www.doi.org/10.1046/j.1525-1497.2001.016009606.x
- 32. Williams JW, Pignone M, Ramirez G, Perez Stellato C. Identifying depression in primary care: a literature synthesis of case-finding instruments. Gen Hosp Psychiatry. 2002;24:225-37. https://www.doi.org/10.1016/s0163-8343(02)00195-0
- 33. Cassiani-Miranda CA, Cuadros-Cruz AK, Torres-Pinzón H, et al. Validez del Cuestionario de salud del paciente-9 (PHQ-9) para cribado de depresión en adultos usuarios de Atención Primaria en Bucaramanga, Colombia. Rev Colomb Psiquiatr. 2021;50:11-21. https://www.doi.org/10.1016/j.rcp.2019.09.001
- 34. Razali NM, Wah YB, Sciences M. Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling tests. JOSMA. 2011;2:21-33.
- 35. Abdisa E, Fekadu G, Girma S, Shibiru T, Tilahun T, Mohamed H, et al. Self-stigma and medication adherence among patients with mental illness treated at Jimma University Medical Center, Southwest Ethiopia. Int J Ment Health Syst. 2020;14:56. https://www.doi.org/10.1186/s13033-020-00391-6
- 36. Yoshimura A, Kimura M, Matsushita S, Yoneda J, Maesato H, Komoto Y, et al. Alcohol dependence severity determines the course of treatment-seeking patients. Alcohol Clin Exp Res. 2021;45:2335-46. https://www.doi.org/10.1111/acer.14707
- 37. Schomerus G, Corrigan PW, Klauer T, Kuwert P, Freyberger HJ, Lucht M. Self-stigma in alcohol dependence: Consequences for drinking-refusal self-efficacy. Drug Alcohol Depend. 2011;114:12-7. https://www.doi.org/10.1016/j.drugalcdep.2010.08.013
- 38. Von Hippel C, Brener L, Horwitz R. Implicit and explicit internalized stigma: Relationship with risky

- behaviors, psychosocial functioning and healthcare access among people who inject drugs. Addict Behav. 2018;76:305-11. https://www.doi.org/10.1016/j.addbeh.2017.08.036
- 39. Yanos PT, Roe D, Markus K, Lysaker PH. Pathways between internalized stigma and outcomes related to recovery in schizophrenia spectrum disorders. Psychiatr Serv. 2008;59:1437-42. https://www.doi.org/10.1176/ps.2008.59.12.1437
- 40. Ilic M, Reinecke J, Bohner G, et al. Protecting self-esteem from stigma: A test of different strategies for coping with the stigma of mental illness. Int J Soc Psychiatry. 2012;58:246-57. https://www.doi.org/10.1177/0020764010392058
- 41. Corrigan PW, Watson AC, Barr L. The self-stigma of mental illness: Implications for self-esteem and self-efficacy. J Soc Clin Psychol. 2006;25:875-84. https://www.doi.org/10.1521/jscp.2006.25.8.875
- 42. Livingston JD, Boyd JE. Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. Soc Sci Med. 2010;71:2150-61. https://www.doi.org/10.1016/j.socscimed.2010.09.030
- 43. Alemayehu Y, Demilew D, Asfaw G, Asfaw H, Alemnew N, Tadesse A. Internalized stigma and associated factors among patients with major depressive disorder at the outpatient department of Amanuel mental specialized hospital, Addis Ababa, Ethiopia, 2019: A cross-sectional study. Psychiatry J. 2020;2020:7369542. https://www.doi.org/10.1155/2020/7369542
- 44. Silveira P, Ferreira G, Soares R, Felicissimo F, Nery F, Casela AL, et al. The relationship between self-stigma and sociodemographic variables in people with substance abuse. Addict Sci Clin Pract. 2012:7;43. https://www.doi.org/10.1186/1940-0640-7-S1-A43
- 45. Ritsher JB, Phelan JC. Internalized stigma predicts erosion of morale among psychiatric outpatients. Psychiatry Res. 2004;129:257-65. https://www.doi.org/10.1016/j.psychres.2004.08.003