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Mindfulness and emotional intelligence in the prevention of relapses in people in treatment: a review*

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* This article refers to the call "Mindfulness and other contemplative practices".
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Objective: to analyze the empirical evidence available on Mindfulness and Emotional Intelligence intervention programs for relapse prevention in people in treatment. Methodology: descriptors in English (Mindfulness, emotional intelligence, relapse prevention) and Spanish (mindfulness, emotional intelligence, relapse prevention) languages were included in the search strategy. Results: a significant effect of Mindfulness practice was identified on emotional intelligence by supporting the regulation of emotions and preventing possible relapses. Conclusion: continue researching Mindfulness and its effects on emotional intelligence in different contexts.

Descriptores: Mindfulness; Emotional Intelligence; Relapse Prevention.

Mindfulness e inteligencia emocional en la prevención de recaídas en personas en tratamiento: una revisión

Objetivo: analizar la evidencia empírica disponible sobre los programas de intervención de Mindfulness e Inteligencia Emocional para la prevención de recaídas en personas en tratamiento. Metodología: en la estrategia de búsqueda se incluyeron descriptores en los idiomas inglés (Mindfulness, emotional intelligence, relapse prevention) y español (atención plena, inteligencia emocional, prevención de la recaída). Resultados: se identifió efecto significativo de la práctica de Mindfulness, sobre la inteligencia eemocional al apoyar en la regulación de las emociones y su vez prevenir posibles recaídas. Conclusion: continuar investigando sobre el Mindfulness y sus efectos sobre la inteligencia emocional en diferentes contextos.

Descriptores: Mindfulness; Emotional intelligence; Relapse prevention

Mindfulness e inteligência emocional na prevenção de recaídas em pessoas em tratamento: uma revisão

Objetivo: analisar as evidências empíricas disponíveis nos programas de intervenção Mindfulness e Emotional Intelligence para prevenção de recaídas em pessoas em tratamento. Metodologia: os descritores nos idiomas inglês (atenção plena, inteligência emocional, prevenção de recaídas) e espanhol (atenção plena, inteligência emocional, prevenção de recaídas) foram incluídos na estratégia de busca. Resultados: um efeito significativo da prática da atenção plena foi identificado na inteligência emocional, apoiando a regulação das emoções e prevenindo possíveis recaídas. Conclusão: continuar pesquisando Mindfulness e seus efeitos na inteligência emocional em diferentes contextos.

Descriptores: Atenção Plena; Inteligência Emocional; Prevenção de Recaídas.

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Introduction

Dependence on alcohol and illicit drugs is a serious public health problem in all countries of the world due to the consequences generated for the physical and mental health of their users and those around them. According to the World Health Organization, approximately three million people die in the world each year from alcohol consumption, which represents 5.1% of the morbidity burden. Likewise, 1.5% of the total deaths are attributable to the use of illicit drugs[1].

Worldwide, approximately 275 million people, that is, about 5.6% of the population of the world between the ages of 15 and 64, have used a drug at least once in their life. It is important to highlight that, of these users, approximately 31 million suffer from disorders caused by consumption, which might require treatment to reduce consumption or prevent relapses[2].

In Mexico, 71% of the adult population between 18 and 65 years of age has consumed alcohol some time in their life, 49.1% in the last year and 35.9% in the last month. Likewise, excessive alcohol intake in this age group increased 8.2% from 2011 to 2016. It is important to mention that, in this population of alcohol users in the last year, nearly 3% have requested treatment, while of the people who already have alcohol dependence, this figure increases to 13.9% and it is highlighted that women are those who least request treatment (8.1%)[3].

In relation to the consumption of illicit drugs, 10.3% of the population has consumed some time in their life, 2.9% in the last year and 1.5% in the last month; it is important to highlight that 0.6% already has a dependence on the consumption of illicit drugs, of which only 20.3% have requested treatment in the last year; of the users with dependence who were in treatment, 32.4% were in an annex, 24.8% were in treatment for detoxification and 13.2% received psychiatric or residential treatment[3].

Treatment for drug dependence is intended to provide the person with strategies, tools or competencies that help to manage compulsive drug use and to reduce seeking it; such treatment can be carried out in a wide variety of settings, in various ways and for different periods of time[4]. However, dependent drug use is often viewed as a chronic disorder characterized by constant relapses, and a treatment cycle[4] is usually not sufficient.

The evidence mentions that drug dependence is based on the need to escape from emotions considered negative, which damage or modify people's mental health; it has been observed that the non-regulation of emotions is one of the main associated causes of consumption, since consumers, when experiencing difficulties or situations considered stressful, painful or distressing, seek to mitigate or minimize these emotions and, by not having skills that allow for emotional regulation, they can use maladaptive strategies such as drug abuse or present some relapse in consumption[5-14].

Therefore, it is important to use tools that regulate or manage emotions, that is, that increase the Emotional Intelligence (EI) of the user. EI is defined as a set of knowledge and skills, referring to the emotional and social sphere that influence the general ability to effectively face the demands of the context; this ability is based on the individuals' capacity to be aware of, understand, control, regulate and express their emotions effectively[15].

It is mentioned that EI is composed of five elements: first, the intrapersonal component, which refers to self-understanding, assertiveness, self-concept, self-realization and independence, that is, the ability to be aware, to understand and to relate with others. The second component is interpersonal, which, by including empathy, interpersonal relationships, and social responsibility, implies the ability to regulate strong emotions and to control impulses[15].

The third component refers to the adaptability or adjustment that refers to problem-solving, that is, the ability to identify and define problems and to generate and implement effective solutions, also including the flexibility to adjust or regulate emotions, as well as to evaluate what is experienced and what actually exists. The fourth component corresponds to mood, which is constituted by the ability to adapt to changes and to solve problems of a personal and social nature; and, finally, the stress management component, which involves the ability to have a positive and optimistic view[15].

One of the tools that have been used in recent years worldwide is the practice of Mindfulness, which has been integrated into some intervention programs for the prevention of relapses in alcohol and illicit drugs users, showing significant results in the regulation of emotions, which, in turn, indirectly impacts on relapse prevention. The state of Mindfulness considers two basic elements in the emotional regulation process, self-regulation of the attention in the present moment and minimization of value judgments[16]; in this sense, the practice of Mindfulness connects the person with their emotions in a compassionate and non-reactive manner, where it allows them to detach from the thoughts and the emotional processes[17].

Therefore, the objective of this review is to analyze the empirical evidence available on intervention programs based on Mindfulness and Emotional Intelligence for the prevention of relapses in people under treatment.

Method

The literature review was carried out according to the steps proposed by the Cochrane Handbook[18]. First, the research question was formulated in order to respond to the proposed objectives; immediately after that, the selection criteria were defined, and the search and selection of articles was carried out, as well as the evaluation. Subsequently, the analysis of the data obtained was carried out and, finally, the synthesis was described and the results[18-19] were presented.

The inclusion criteria for the selection of articles were the following: limited to the last five years of publication (2015 to 2020), articles in English and Spanish written by professionals from various health disciplines. Studies belonging to the following levels of research were included: II (randomized experimental research studies) and III (quasi-experimental research studies, such as single-group controlled studies, and time series studies)[20]. The study population selected in the articles were people in treatment for alcohol or illicit drug use.

To collect the articles of interest, an exhaustive search was carried out in multiple databases such as BioOne, CONRICyT, EBSCO, Elsevier, PubMed, Scielo, Science Direct, and Scopus; it is important to mention that the Academic Google search engine was used as a strategy to obtain some full-text documents. As a search strategy, the DeCS and MeSH descriptors were included in the English (Mindfulness, emotional intelligence, relapse prevention) and Spanish (*atención plena*, *inteligencia emocional*, *prevención de la recaída*) languages in all possible combinations, as well as Boolean truncators and operators in the title and abstract.

A total of 471 articles were obtained from all the databases used; the titles were read, those that were not of interest were eliminated and, after that, the abstracts were read as the first filter for the selection of the articles. Subsequently, the critical analysis was carried out, as well as the search for the main variables and the relationship between Mindfulness and Emotional Intelligence for the prevention of relapses in alcohol and illicit drug use; work tools such as critical reading, underlining and analysis table were used (level of evidence, design, sample size, instruments used, and main results found). Figure 1 shows the process of identification, screening, and eligibility, where it can be seen that only four studies were included after this process.
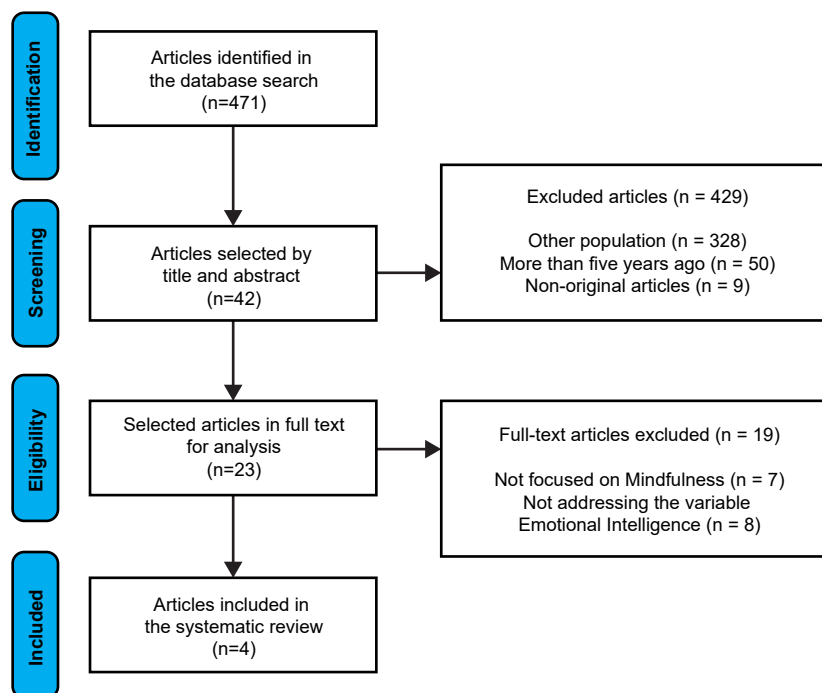

Figure 1 - Process of inclusion and exclusion of articles

Results

Figures 2 to 4 show the characteristics of the studies. It should be noted that the studies were carried out in China, India, and Iran, with samples between 30 and 89 subjects; all the studies conducted with men who received involuntary or outpatient treatment.

It was found that only one study addressed the prevention of relapse in alcohol consumption[7] and three studies in marijuana use[5-6,8], for which most of the studies received involuntary treatment[5-6,8]. In all the studies, significant results were shown in the regulation of emotions[5-8]; however, only three studies showed results on the prevention of relapse[5-6,8] and only one study demonstrated efficacy in the post-intervention follow-up (Figure 5)[5].

It is important to mention that only three studies explained in detail the intervention carried out focused on Mindfulness[5-6,8]. Likewise, it is important to mention that not only mindfulness activities are carried out, but that it is an element used within the cognitive behavioral interventions commonly performed in patients in involuntary or outpatient treatment[5-8].

Author, year, place	Type of drug	Design and methods	Empirical indicators	Results	Post-intervention follow-up
Chen J, et al. (2019)[5]　　China	Heroin	Design: Experimental Sampling: Simple random Sample: 89 male heroin users from a forced rehabilitation center ($n = 46$ experimental group, $n = 43$ control group).	Contemplation Ladder (CL)　　Obsessive Compulsive Drug Use Scale (OCDUS)　　Beck Depression Inventory (BDI)　　Aggression Questionnaire (AQ)	Significant differences ($p < 0.001$) in all the measuring instruments applied to the pre-test experimental group. As well as when comparing the results with the pre-test control group. The results of the Generalized Stimulation Equation (GEE) showed that the experimental group had a significantly greater effect on drug withdrawal than the control group ($p = 0.027$).	Yes 1, 3, 6, 12, 24 and 36 months

Figure 2 - Relevant information of the four studies included in this systematic review

Author, year, place	Type of drug	Design and methods	Empirical indicators	Results	Post-intervention follow-up
George B. (2015)[7]　　India	Alcohol	Design: Experimental Sampling: Random Sample: 32 alcoholic men aged 30 to 50 years old ($n = 16$ experimental group, $n = 16$ control group).	Alcohol Use Disorders Identification Test (AUDIT)　　Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar)　　Difficulties in Emotion Regulation Scale (DERS)	Significant differences ($t = 135.53$, $p = 0.00$) between the experimental group (M = 46.81, $SD = 2.40$) and control group ($M = 159.00$, $SD = 2.28$) in the total score of the DERS and in its subscales. Significant differences ($t = 141.69$, $p = 0.00$) in the pre-test ($M = 160.31$, $SD = 3.04$) and post-test ($M = 46.81$, $SD = 2.40$) of the experimental group in the total score of the DERS and its subscales. The effectiveness of the treatment showed values above 0.8 in the Cohen's test, which is considered a high effect.	No

Figure 3 - Relevant information of the four studies included in this systematic review (continued)

Author, year, place	Type of drug	Design and methods	Empirical indicators	Results	Post-intervention follow-up
Esmaeili A, Khodadadi M, Norozi E, Reza M. (2017)[6]　　Iran	Heroin	Design: Quasi-experimental Sampling: Non-probabilistic Sample: 60 men between 20 and 50 years of age from an addiction center ($n = 30$ experimental group, n = 30 control group).	Cognitive Emotional Regulation Questionnaire [CERQ, (Garnefski & Kraaij, 2007)]	Significant difference ($p < 0.01$) and with Bonferroni correction ($p < 0.006$) between the experimental and control groups, in the pre-test and post-test scores of positive (48.2% of the explained variance) and negative (64.7% of the explained variance) regulation.	No
Zargar F, Bagheri N, Javad TM, Salehi M. (2019)[8]　　Iran	Heroin	Design: Experimental Sampling: Random Sample: 30 men between 20 and 50 years of age from an addiction center ($n = 15$ experimental group, n = 15 control group).	Difficulties in Emotion Regulation Scale (DERS)　　Dyadic Adjustment Scale (DAS)　　Craving Belief Questionnaire (CBQ)	Significant differences ($F = 21.88$, $p = 0.001$) in the pre-test ($M = 116.6$, $SD = 16.4$) and in the post-test ($M = 56.66$, $SD = 18.39$) of the experimental group in the total score of the CBQ. While the control group did not show significant differences in the pre-test ($M = 119.1$, $SD = 11.64$) and in the post-test ($M = 105.2$, $SD = 34.5$).	No

Figure 4 - Relevant information of the four studies included in this systematic review

Author	Mindfulness	
	Emotional Intelligence (EI)	R‡
Chen et al. (2019)	*	*
George (2015)	*	†
Esmaeili, Khodadadi, Norozi and Raza (2017)	*	*
Zargar, Bagheri, Javad and Mehrdad (2019)	*	*

*= Yes, it is reported; †Not reported; ‡R = Relapse

Figure 5 - Effect of Mindfulness on emotional intelligence and relapse

Discussion

This review provides evidence that the practice of Mindfulness has been used in the treatment of the person with addictions, reinforcing Emotional Intelligence and helping to prevent relapses[5-8]; which is important to mention, since the practice of Mindfulness combined with the increase of EI skills, such as decoding, recognition and management of emotions, play a key role in the treatment of substance use disorders[5-12].

Another aspect to be considered in the review is the specific focus on substances in the treatment of alcohol[7] and heroin[5-6,8] consumption which, according to the contexts where they were performed, are the drugs that are most consumed, as well as those that present greater dependence and require treatment; however, it would be interesting to know the effects of Mindfulness and EI in people who use marijuana, as it is one of the most widely used drugs in Mexico[3]. In relation to the samples, it was observed that the participants were all men[5-8], which is consistent with the literature as they are the ones who most request treatments for drug dependence.

The results show that Mindfulness shows an effect on the regulation of emotions, that is, it increases the EI of people who require treatment and, in turn, EI mediates the effect on the prevention of relapses[5-8], reason why it is important that the practice of Mindfulness be incorporated into the interventions that are commonly carried out with this type of population, although it does not replace such intervention, but rather shows that it is an important component for the treatment of people with dependence on alcohol and drugs that should continue to be investigated in order to show its effectiveness in various contexts.

Another finding is that the interventions are mostly carried out by Psychology professionals[5-8]. In this sense, it is important that the Nursing professionals, as they are in charge of caring for people in a global manner, make this type of intervention an important field of action, since it could be incorporated into this type of intervention and provide care in a holistic fashion.

Conclusion

According to the analysis of the studies, it can be concluded that the practice of Mindfulness shows significant results in the regulation of emotions, which increases the Emotional Intelligence of the people who practice it and, in turn, could be a tool for the prevention of relapse in people who are in treatment for alcohol or drug use.

The existing evidence mentions that men are the ones who request treatment the most, which was observed in the studies when it was found that, in all the studies, the samples consisted of adult men. Therefore, it is suggested that research studies be carried out in women in order to know the efficacy in this population.

No studies conducted in Mexican or Latin American contexts were found, so it is interesting to replicate these interventions in order to continue conducting research studies focused on the practice of Mindfulness and to help enhance EI, since it is considered a good tool showing promising results in relapse prevention. However, it is necessary to consolidate the results, which is why the evaluation of a greater number of empirical studies is required and suggested, in different contexts.

References

1. Organización Mundial de la Salud. Alcohol [internet]; 2018 [cited 28 febrero 2020]. Disponible en: https://www.who.int/es/news-room/fact-sheets/detail/alcohol

2. Oficina de las Naciones Unidas contra la Droga y el Delito. Informe Mundial sobre las Drogas [internet]; 2017 [cited 27 febrero 2020]. Disponible en: https://www.unodc.org/wdr2017/field/WDR_Booklet1_Exsum_Spanish.pdf

3. Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz; Instituto Nacional de Salud Pública, Comisión Nacional Contra las Adicciones, Secretaría de Salud. Encuesta Nacional de Consumo de Drogas, Alcohol y Tabaco 2016-2017: Reporte de Drogas. Villatoro-Velázquez JA., Resendiz-Escobar, E., Mujica-Salazar, A., Bretón-Cirett, M., Cañas-Martínez, V., Soto-Hernández, I., Fregoso-Ito, D., Fleiz-Bautista, C., Medina-Mora ME., Gutiérrez-Reyes, J., Franco-Núñez, A., Romero-Martínez, M. & Mendoza-Alvarado, L. Ciudad de México, México: INPRFM; 2017. Disponible en: www.inprf.gob.mx, www.conadic.gob.mx, www.insp.mx

4. National Institute of Drug Abuse. The Science of drug y abuse. Alcohol [internet]; 2011 [cited 02 Febrero 2020]. Disponible en: http://www.drugabuse.gov/drugs- abuse/alcohol

5. Chen J, Yu J, Ciao J, Xiao Y, Gu H, Zhong R, et al. Abstinence following a motivation-skill-desensitization-mental energy intervention for heroin dependence: A three year follow-up result of a randomized controlled

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trial. Current Medical Science. 2019; 39(3): 472-482. doi: 10.1007/s11596-019-2062-y.

6. Esmaeili A, Khodadadi M, Norozi E, Reza MM. Effectiveness of Mindfulness based cognitive group therapy on cognitive emotion regulation of patients under treatment with methadone. Journal of Substance Use. 2017; 03(49): 1-5. doi: 10.1080/14659891.2017.1348553

7. George B. Efficacy of acceptance and Mindful based relapse prevention program on emotion regulation difficulty among alcoholics in Kerala India. J Alcohol Drug Depend. 2015; 3(3): 2-11. doi: 10.4172/2329-6488.1000205

8. Zargar F, Bagheri N, Javad TM, Salehi M. Effectiveness of emotion regulation group therapy on craving, emotion problems, and marital satisfaction in patients with substance use disorders: A randomized clinical trial. Iran J Psychiatry. [Internet] 2019; [cited 28 febrero 2020]; 14(4): 283-290. Disponible en: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7007510/

9. Witkiewitz K, Stein ER, Votaw VR, Wilson AD, Ross CR, Gallegos SJ, et al. Mindfulness-based relapse prevention and transcranial direct current stimulation to reduce heavy drinking: A double-blind sham-controlled randomized trial. Alcohol Clin Exp Res. 2019; 43(6): 1296-1307. doi: 10.1111/acer.14053

10. Grant S, Colaiaco B, Motala A, Shariman R, Booth M, Sorbero M, et al. Mindfulness-based relapse prevention for substance use disorders: A systematic review and meta-analysis. J Addict Med. 2017; 11(5): 386-396. doi: 10.1097/ADM.0000000000000338.

11. Tang YY, Tang R, Posner MI. Mindfulness meditation improves emotion regulation and reduces drug abuse. Drug and Alcohol Dependence. 2016; 163: S13-S18. doi: 10.1016/j.drugalcdep.2015.11.041.

12. Guendelman S, Medeiros S, Rampes H. Mindfulness and emotion regulation: Insights from neurobiological, psychological, and clinical studies. Front Psychol; 8(220): 1-23. doi: 10.3389/fpsyg.2017.00220

13. Darwin J. Emotional intelligence and Mindfulness [internet]. Sheffield (UK). Centre for Mindful life enhancement; 2015 [cited 28 febrero 2020]. Disponible en: https://pdfs.semanticscholar.org/1130/06167c7d3f5d2480458e1eb882fe197d6a7b.pdf

14. Enriquez H, Ramos N, Esparza O. Impact of the Mindful emotional intelligence program on emotional regulation in college students. International Journal of Psychology and Psychological Therapy. [Internet] 2017; [cited 28 febrero 2020]; 17(1): 39-48. Disponible en: https://www.ijpsy.com/volumen17/num1/455.html

15. Bar-On R. BarOn Emotional Quotient Inventory (EQ-i): Technical manual; 1997. Toronto, Canada: Multi-Health Systems. Disponible en: http://www.eiconsortium.org/pdf/baron_model_of_emotional_social_intelligence.pdf

16. Moscoso MS. Hacía una integración de Mindfulness e inteligencia emocional en psicología y educación. Liberabit. 2019; 25(1): 107-117. doi: 10.24265/liberabit.2019.v25n1.09

17. Ramos DN, Salcido CL. Programa Inteligencia Emocional Plena (PINEP) aplicando Mindfulness para regular emociones. Revista de Psicoterapia. 2017; 28(107): 259-270. doi: https://doi.org/10.33898/rdp.v28i107.152

18. Higgins J, Thomas J. Cochrane handbook for systematic reviews of interventions. 2019 [citado 28 febrero 2020]. Disponible en: https://training.cochrane.org/handbook/current

19. Armendáriz GNA, Rodríguez PLA, Guzmán FFR, López CMA, Ahumada CJG, Alonso CMA. Revisiones sistemáticas en el fenómeno de drogas. En experiencias de investigación de la red mexicna de facultades y escuelas de enfermeríua: predicción del consumo de alcohol y tabaco en jóvenes de preparatoria. Monterrey (MX): Editorial Universitaria; 2015. p. 31-41.

20. Stetler ChB, Bruneell M, Giuliano K, Newell V. Evidence-based practice and the role of nursing leadership. The Journal of Nursing Administration. 1998; 28(8), 45-53. doi: 10.1097/00005110-199807000-00011

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