




Resilience and coping strategies in a sample of consumers and non-consumers of psychoactive substances

La resiliencia y estrategias de afrontamiento en una muestra de consumidores y no consumidores de sustancias psicoactivas

Resiliência, bem-estar psicológico eudaimônico, depressão, ansiedade e estresse em adultos venezuelanos: um estudo preditivo


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KEYWORDS

substance use, coping strategies, youth, resilience.

ABSTRACT. A quantitative, non-experimental correlational study, with a cross-sectional design, aimed at describing coping strategies and resilience in two groups of young consumers and non-consumers of psychoactive substances. The Coping Strategies Inventory, designed by Tobin et al. (1989) and the Resilience Scale SV-RES by Saavedra and Villalta (2008) were used. The results suggest that the combination of low social support strategies, social isolation, and high levels of emotional expression may seem to be associated with substance use as a possible escape route for coping with stressful situations. In terms of resilience, the results are consistent with other studies that show lower levels of resilience in the population of psychoactive substance users. Finally, this research leads to the conclusion that resilience and adequate coping strategies are protective factors that should be strengthened in the child and adolescent population in order to prevent substance use behavior as an escape route from problems.

PALABRAS CLAVE

consumo de sustancias, estrategias de afrontamiento, jóvenes, resiliencia.

RESUMEN. Estudio de enfoque cuantitativo, de diseño no experimental de nivel correlacional, con un diseño transversal, se orientó a describir las estrategias de afrontamiento y resiliencia en dos grupos de jóvenes consumidores y no consumidores de sustancias psicoactivas. Se empleó el Inventario de estrategias de afrontamiento, diseñado por Tobin et al. (1989) y la Escala de resiliencia SV-RES de Saavedra y Villalta (2008). Los resultados sugieren que la combinación de estrategias de bajo apoyo social, aislamiento social, y altos niveles de expresión emocional al parecer puede estar asociada con el consumo de sustancias como una posible vía de escape para el manejo de situaciones estresantes. En cuanto a resiliencia, los resultados concuerdan con otros estudios que muestran niveles más bajos de resiliencia en la población de consumidores de sustancias psicoactivas. Finalmente, esta investigación permite concluir que la resiliencia y adecuadas estrategias de afrontamiento son factores protectores que deben potencializarse en la población infantil y adolescente a fin de prevenir la conducta de consumo de sustancias como vía de escape a los problemas.

PALAVRAS-CHAVE

consumo de substâncias, estratégias de enfrentamento, juventude, resiliência.

RESUMO. Um estudo correlacional quantitativo, não experimental, com um desenho transversal, teve como objetivo descrever as estratégias de coping e a resiliência em dois grupos de jovens consumidores e não consumidores de substâncias psicoativas. Foram utilizados o Inventário de Estratégias de Coping, concebido por Tobin et al. (1989) e a Escala de Resiliência SV-RES de Saavedra e Villalta (2008). Os resultados sugerem que a combinação de baixas estratégias de suporte social, isolamento social e altos níveis de expressão emocional pode estar associada ao uso de substâncias como uma possível via de escape para lidar com situações stressantes. Em termos de resiliência, os resultados são consistentes com outros estudos que mostram níveis mais baixos de resiliência na população de utilizadores de substâncias psicoativas. Por fim, esta investigação permite-nos concluir que a resiliência e as estratégias de coping adequadas são factores de proteção que devem ser reforçados na população infantojuvenil, de forma a prevenir o comportamento de consumo de substâncias como forma de fuga aos problemas.

1. INTRODUCTION

Colombia has led the change of strategy worldwide concerning the so-called "war on drugs" focusing the action on a social and human approach where the person is the center of attention, which implies a differential treatment among the actors of the production chain: growers, consumers, small traffickers, criminal organizations linked to drug trafficking (Ministry of Justice and Law, 2019).

Although consumption levels in recent years have shown some decrease. For example, the number of people who admit to having consumed substances such as marijuana, bazuco, ecstasy, and heroin, went from 8.6% in 2008 to 12.17% in 2013, and returned to 8.7% in 2019, mainly indicating the decrease in marijuana consumption. However, the percentage of substance use at the general level, despite this decrease, is still quite high (Ministry of Justice and Law, 2019).

Now, considering the importance of attention to the problem of consumption, which implies taking into account psychological aspects by understanding both the processes that lead to consumption and the factors that influence substance abuse and lead to a certain attitude towards the possibility of consuming, it is relevant to focus attention on the protective factors and risk factors related to the phenomenon (Zaami et al., 2021).

One of the important aspects involved in both the initiation and establishment of addictive behaviors is related to biological factors as indicated by Potenza (2013). Neurological studies indicate that a primary component involved in addiction is the nucleus accumbens, sometimes referred to as the "reward center", located in the ventral striatum and receiving dopaminergic innervation from the ventral tegmental area (referred to as the mesolimbic dopamine system) (Uhl et al., 2019).

Similarly, in addition to dopamine, a wide range of neurotransmitters, including opioids, cannabinoids, serotonin, norepinephrine, acetylcholine, glutamate, and gamma-aminobutyric acid (GABA), contribute to addiction and their receptors are located in various areas of the brain, acting differentially for the different stages related to addictive behavior (Wise & Robble, 2020).

Motivation-focused models also posit, that the frontal cortex, responsible for executive functioning, occupies an important place in the process of shaping and controlling addictive behaviors, with the ventral striatum and ventromedial cortex being related to reward processing and risk/benefit decision-making and selection of immediate short-term rewards, while the dorsal prefrontal cortical brain regions are related to delayed and long-term choices and motivations as indicated by Marusich et al. (2019). Furthermore, from a developmental perspective, prefrontal cortical brain regions are the last to mature, and, likely, adolescents' vulnerability to psychoactive substance use and abuse or other mental health disorders is linked to such late development (Nikbakhtzadeh et al., 2023).

However, biological factors are mediated by aspects of both psychological and social nature, which allow for decreasing or increasing the risk of substance use and the development of substance addiction. Regarding risk factors related to psychological aspects, for example, emotional alterations such as depression, stress, anxiety, and low self-esteem are highlighted as stated by Xhakaza et al. (2021). In addition, there are deficiencies in social skills, socioemotional difficulties, and little expertise about life skills, associated with a low perception of risk of consumption. In this order of ideas, coping strategies are also indicated as risk or protective factors for consumption (Marquez-Arrico et al., 2019).

The authors indicate that addicts have problems in the use of active (assertive) strategies to cope with problems, preferentially opting for passive forms (avoidance), and also using indirect orientation to the problem and manipulation of the environment and people, as indicated by González-Yubero et al (2021), who state that the use of coping strategies such as seeking social support from parents, problem-solving, offering help and reflection increase the probability of not consuming drugs.

For their part, Fishman et al (2021) found that in the consumer population, the most commonly used types of coping were planning strategies, active coping, postponement of coping, and turning to religion. In their contributions, Kidd et al. (2019) argue that female college student alcohol consumers cope more with stress with support from religion, while males use more avoidance, humor, and alcohol and drug use.

The above has allowed contributions to be made from research advances where it has been evidenced that self-control and functional coping strategies allow contribute to a successful rehabilitation process in the words of Wilski et al. (2021). Affirming that the task-oriented coping style allows for avoiding the risk of relapse, and the avoidant style, on the other hand, contributes to the risk of relapse in rehabilitation processes as mentioned by Cavicchioli et al. (2019).

In turn, O'Brien et al (2019) indicate that religion is one of the most used strategies by people in the rehabilitation process where they suggest that the most used strategies in consumers tend to be problem-solving, seeking social support, emotional support, and religion. The productive coping style and, specifically, strategies such as striving and focusing on solving problems or focusing on the positive and seeking emotional support, seem to act as protectors against chemical and behavioral addictions in young people as mentioned by Böke et al. (2019). On a general level, the promotion of functional coping strategies improves motivation during the rehabilitation process and prevents relapse. The above indicates the importance of coping strategies both for the maintenance of consumption behavior and for the success of rehabilitation processes (Andersson et al., 2019).

Likewise, the present study considers it important to focus attention on resilience as a highly relevant phonological resource to overcome addictive behavior as mentioned by Caravaca-Sánchez & García-Jarillo (2020). Resilience has taken relevance from positive psychology to try to understand why individuals who have gone through adverse situations overcome them and emerge stronger from these, while others sink into hopelessness, despair, and abandonment and take refuge, in addition, to drugs. Resilience includes two fundamental aspects: resisting the event and recovering from it (Deligianni et al., 2020).

Resilience is considered a coping strategy in the face of adverse situations in life, presenting a relationship between resilience and some personal factors of the individual, i.e. coping will be promoted by the way the human being has to adapt to his environment, which is related to particular characteristics such as intelligence, self-esteem, conflict resolution capacity, being resilient people who react better to stress by reducing its level of intensity (Savulich et al., 2021).

Regarding the relationship between resilient characteristics at a personal level and substance use, studies indicate that greater resilience is considered a relevant protective factor for substance use as indicated by Stainton et al. (2019). Rehabilitation processes benefit through the promotion of resilient skills such as critical judgment of their consumption reality, facing adverse problems, anticipation of consumption behaviors, creativity, reflective thinking process, self-delimitation, and abandonment of egocentric behaviors Resilient factors present at the community level such as support networks, especially positive characteristics of family relationships act as protectors in consumption in adolescents (Feder et al., 2019).

For their part, Yang et al. (2019) indicate that resilience is an important factor that can interact with consumption, it is also necessary to consider the motivational structure of the subject that mediates the relationship between resilience and substance use. The presence of resilient skills in combination with other protective factors is indispensable for the recovery of street users (Ersche et al., 2020).

Based on the above, it can be seen that both coping strategies and resilience are fundamental in the relationship that an individual establishes with illicit drugs and their context, either to initiate consumption and subsequent

abuse or to understand what elements make them strong so that consumption does not influence their lives despite adversity (Verdejo-Garcia & Albein-Urios, 2021).

The present study was aimed at examining coping strategies and resilient characteristics in a sample of subjects who are consumers and non-consumers of psychoactive substances, allowing the identification of the specific characteristics of these variables in both groups.

2. METHOD

Type of study

Type of study: It was developed with quantitative methodology of descriptive type and transversal design. Taking into account the expertise and interests of the researchers according to the structure and organization outlined in the relationship and control of the variables.

Participants

The participants in this study were 50 male subjects between 20 and 34 years of age, poly-consumers of psychoactive substances, from the city of Medellín in Antioquia, who were confined in a rehabilitation center for men, and 50 non-consuming adults, also male and matched by the sociodemographic variables of age, educational level and socioeconomic stratum, with the average age of each group being $M=27$, $SD=7$; Of each group, 65% belonged to stratum 2 and 35% to stratum 3; in terms of educational level, 15% had a primary level, 55% a secondary level and the remaining 30% a technical/technological level.

Instruments

A questionnaire designed for the study was used for sociodemographic data. For the resilience assessment, the SV-RES resilience scale was used, designed, and validated in the Chilean population by Saavedra & Villalta (2008), which makes it possible to establish a general level of resilience but also to determine the specific factors that make it up. This test consists of 60 items that focus on 12 factors of analysis: identity, autonomy, satisfaction, pragmatism, bonds, networks, models, goals, affectivity, self-efficacy, learning, and generativity. This structure was taken from Grotberg's model of verbalizations (I am, I am, I have, I can). Cronbach's alpha of the instrument is 0.96 (Saavedra & Villalta, 2008).

For the assessment of coping strategies, the Coping Strategies Inventory was used, which consists of 40 items, designed by Tobin et al (1989) and adapted for the Spanish population by Cano-García (2007), and has a hierarchical structure composed of eight strategies. The person begins by describing the stressful situation in detail; then, he/she answers each item according to a five-point Likert-type scale that defines the frequency of what he/she did in the situation described. At the end of the scale, she answers an additional item about perceived coping self-efficacy. Cronbach's alpha of the instrument was .63 to .89, for the eight factors.

Procedure

Initially, contact was made with the population of consumers in the process of rehabilitation, from which the sample of people who gave their consent to participate voluntarily in the study was chosen. Subsequently, the group of non-consumers was matched according to the sociodemographic characteristics of the participants in the group of consumers, such as age, socioeconomic and educational level. The study took into consideration

resolution 8430 of the Colombian Ministry of Health and Protection (1993), which regulates research with human subjects, and law 1090 of the Colombian Congress (2006). Informed consent was signed by all participants.

The Kolmogorov-Smirnov test as provided by Romero-Saldaña (2016) is used to identify the normality of variable distribution and from there, the comparison of groups, Student's t-test for parametric variables and the Mann Whitney U-test for non-parametric variables was used according to the contributions of Lugo-Armenta & Pino-Fan, (2021). Statistical significance was established with a p -value <0.05 . The data were processed with the statistical package SPSS version 26 for Windows.

3. RESULTS

The comparison of coping strategies according to groups of consumers and non-consumers shows a statistically significant difference ($p<.05$) in the social support variable, being higher in the non-consumers group. The social withdrawal strategy also showed a statistically significant difference ($p<.05$), indicating a higher value in the consumer group. It is also important to highlight the differences in the mean scores, without being statistically significant, obtained between the consumer and non-consumer groups, in the strategies of self-criticism and emotional expression (higher score in consumers), as well as a higher score in total coping in favor of non-consumers (Table 1).

Table 1

Difference in coping variables according to consumer and non-consumer groups.

Coping variables	Consumers	Z	Non-consumers	Z	Mann Whitney U	p- value
	Me (RI)		Me (RI)			
	15.5 (9)	0.25	16.5(6)	0.45	138	.46
Problem solving	14.5(9)	0.56	14.0(6)	0.46	151	.74
Diserative thinking	9.5(9)	- 0.23	16(12)	0.99	96	.03
Social support	10.4(5.5)	1.05	7.9 (5,6)	0.56	1.3	.19
Self-criticism	13.4 (4.9)	0.88	10.2(5,5)	0.24	1.9	.07
Emotional expression	10.2(4.2)	0.0	12.3(4,2)	0.43	-1.5	.14
Cognitive restructuring	7.3(3.7)	0.34	8.3(4,1)	0.65	-.8	.42
Problem avoidance	9.7(2.9)	1.62	6.9(4,3)	0.83	2.3	.03
Social withdrawal	75.3(16)		87(22,2)		-1.8	.08

Note. Normal distribution, M (SD), Student's t-test.

Regarding the comparison of resilience between the groups of substance users and non-users, a statistically significant difference was identified in all the subcomponents of resilience (bonds and satisfaction with $p<.05$, the remaining variables with $p<.01$), with the highest score in the group of non-users.

Additionally, it is important to point out that the total resilience score obtained in the consumer group was very low, as well as in all its subcomponents, while in the non-consumer group, the total resilience score reached a medium level and a high level in some subcomponents such as goals, pragmatism, identity, autonomy and generativity (Table 2).

Table 2

Difference in resilience variables according to consumer and non-consumer groups.

Resilience variables (non-normal distribution)	Consumers Me (RI)	Percentile	Non-consumers Me (RI)	Percentile	Mann Whitney U	p- value
Identity	7.5(2)	1	22.5(18)	61.9	73.5	.004
Autonomy	10(5)	2.1	22.5(16)	67.5	74	.005
Satisfaction	11.5(5)	1.7	20(15)	46.7	89.5	.020
Pragmatism	9(4)	0.3	22(15)	69.9	74.5	.005
Links	13(6)	2.4	22(16)	61.2	85.5	.014
Networks	10(8)	1	20.5(7,3)	55	73.5	.004
Models	9.5(7)	0.3	20(15)	38.8	72.5	.004
Goals	8.5(5)	0.7	23(16)	71.3	69	.003
Affectivity	10.5(6)	1	18.5(13)	31.5	76.5	.006
Self-efficacy	8.5(5)	1	21(14)	45.3	50	.000
Learning	7.5(6)	1	21(15)	46.7	41.5	.000
Generativity	6.5 (4)	0.7	22.5(17)	65.7	49.5	.000
Total Resilience Score	112 (41)	1	264.5(182)	60.6	76	.006

4. DISCUSSION

Regarding the coping strategies identified in the group of non-consumers, it is observed that the most used strategy is problem-solving, followed by social support and desirative thinking as mentioned by Van-Duijvenbode & Vandernagel, (2019). The least used are self-criticism and social withdrawal. Likewise, all the strategies used, showed the mean above the reference mean, among these the social support strategy showed the highest score, indicating that it is the strategy used to a greater extent in the study sample compared to the reference population (Emmerik-Van et al., 2019).

This indicates that the subjects in the sample group of non-consumers use more functional strategies from both the cognitive (problem-solving) and emotional (social support) aspects, and show the lowest use of non-

functional strategies from the emotional aspect (self-criticism and social withdrawal), reflecting a functional profile at the general level of coping (Cano-García et al., 2007).

However, the high degree of use of the desirative thinking strategy is striking, which is not precisely a functional strategy since it reflects the predominance of personal desire over objective evaluation of the situation. The high degree of use of the desirative thinking strategy in the sample of non-consumers could be related to a universal phenomenon present in human beings related to magical thinking which, in addition to being related to all kinds of religious and miraculous beliefs, attributes the belief in a certain power of thought concerning real events (Píngel-Erráez & Guerrero-Pozo, 2020).

In the group of consumers, it was also observed that the strategy of greatest use was problem-solving, followed by desirative thinking and emotional expression. The least used strategies were social support and problem avoidance. It is important to note that the social support strategy even scored below the reference mean, indicating a very low level of use in the consumer sample group (Klimenko et al., 2023).

In this aspect, the profile of the group of consumers is interesting in terms of the use of coping strategies. Although the most frequently employed strategy is problem-solving, being this a functional strategy, the high use of desirative thinking strategies as a form of magical thinking based on the desire to make problems disappear, and, equally, very low use of social support strategies, is striking. Taking into account that the social support strategy acts as a factor that allows potentializing and optimizing the subject's available internal resources and searching for more adequate external support resources to face the problem, as mentioned by Andreo et al (2020). Its low use can affect other coping strategies, decreasing coping efficacy at a general level.

In this aspect it is important to consider that the comparative analysis between the groups of consumers and non-consumers showed the presence of statistically significant differences in social support with higher values in favor of non-consumers; and in social withdrawal with higher values in favor of the consumer group (López-Ortiz & Fernández-Flores, 2022).

This indicates the presence of problems related to interpersonal and social relationships in the consumer group, indicating that consumers have a greater tendency to use the strategy of social withdrawal, combined with lower use of social support in problematic situations that generate stress. In this aspect, the findings are consistent with the authors' assertion that interpersonal relationships and social support networks act as protective factors against substance use (Vicknasingam et al., 2020).

The emotional expression variable, although it did not reach statistical significance, showed a higher score in favor of the group of consumers. This aspect is interesting since the emotional expression strategy together with good management of the social support strategy is considered by the authors of the test as part of adequate emotion-focused coping as stated by Motyka & Al-Imam (2021). Considering emotional expression as a coping strategy aimed at releasing stress-related emotions, and taking into account the formulation of the corresponding evaluative items, the presence of a tendency towards venting and/or emotional staging, expressing and letting out what one feels to decrease the pressure of stress, is evidenced. If this emotional expression is related to social support, it is more likely that such expression will be directed more constructively, generating more functional forms of emotional expression and venting and finally allowing for adequate management of emotion (Simonis et al., 2020).

Regarding the data obtained from the sample of consumers in the present study, the emotional expression strategy is combined with a very low score in the social support strategy, accompanied, in addition, by a high use of the social withdrawal strategy. In this case, and considering the importance of the mediating role played by the social support strategy, interpersonal interaction is a means to become aware of and reflect on emotions as indicated by Castaño et al. (2022). Likely, emotional expression in conditions of social isolation produced by low social support and high social withdrawal does not have the reflective mediation and cognitive control necessary to be functional, thus connecting the strategy of emotional expression with substance use (Campuzano et al., 2022).

The data from the present study suggest that the combination of strategies of low social support, high social withdrawal, and high emotional expression may be associated with substance use as a possible escape route for the management of stressful situations as stated by Alarcón-Garavito et al. (2023). On the other hand, the analysis of resilience subcomponents in the group of non-consumers shows a resilient profile where the goals factor occupies the first place. This factor refers to the contextual value of goals and social networks over the problematic situation, indicating the importance of establishing and achieving goals in the lives of the subjects in the sample group, as well as the use of social networks to face problems. Secondly, there is the pragmatism factor, which is associated with the goals factor, since it refers to a way of perceiving oneself as a practical person, with goals in life and a problem-solving capacity. Two other factors of higher prevalence are autonomy, related to the perception of oneself as a self-confident person capable of contributing to his environment; and generativity, related to the perception of oneself as capable of solving problems and working with others in solving them (Oliveira et al., 2021).

The higher scores obtained in these first 4 resilience factors are also consistent with the prevalence of problem-solving coping strategies and social support in the group of nonconsumers, denoting a general tendency toward a proactive attitude based on practical problem-solving, relying on social networks and relationships.

And finally, it is necessary to highlight that medium-high and high level was identified in the management of resilience factors, except for two factors of models and affectivity, which showed medium-low values (Higgins et al., 2019).

Concerning the above data, we can relate to the study by Saavedra & Villalta (2008) who also identified the generativity factor as the highest in the male population between 19 and 29 years of age, in a Chilean population sample, which is related to the findings of the present study. However, the authors identified the satisfaction factor as the lowest factor in their study sample, with the affectivity factor being the lowest in the sample of the present study.

Regarding the resilient profile of consumers, a very low score level is evident in all the subcomponents evaluated. The highest score was obtained in the ties factor, related to the value of primary socialization and social networks with roots in personal history as stated by Saavedra & Villalta (2008)). In second place is the autonomy factor represented by the self-confidence that allows one to contribute to the environment. The other two factors with the highest scores in the group of consumers were satisfaction, related to the positive valuation of oneself and one's relationships with others and the environment; and affectivity, related to the expression of emotions and the establishment of affective bonds (Ciccirillo et al., 2023).

As can be observed, these four factors that scored higher in the resilient profile of the consumer group are generally oriented towards a tendency to prioritize aspects related to positive self-esteem and family relationships, and affective bonds with others as the most relevant resilient elements. Because, although these aspects were of greater relevance in the group's profile, their score was very low, placing, for example, the first factor that obtained the highest score, barely at the 2.4 percentile. This indicates too low a level of resilience management across the consumer group in general. CONCLUSION DISCUSSION

Comparison between the non-consumer and consumer groups showed the presence of statistically significant differences for both the total score and all resilience subcomponents in favor of the non-consumer group.

These results are consistent with other studies showing lower levels of resilience in the population of psychoactive substance users as indicated by Konaszewski et al. (2021) also pointing to resilience as an inverse predictor of substance abuse.

5. CONCLUSION

It is recognized that the study presents limitations at the level of the study sample, considering the importance of enlarging the sample to include, also the representation of the female gender, as well as the comparison related to different moments of the therapeutic process. However, the results obtained allow us to contribute to the understanding of phonological resources that could be related to the phenomenon of substance use and the construction of programs for both prevention of substance use and therapeutic care strategies during the rehabilitation process, indicating that both adequate coping strategies and resilient skills are important and relevant for dealing with the phenomenon of substance use.

Conflicto de intereses / Competing interests:

Los autores declaran que no incurrir en conflictos de intereses.

Rol de los autores / Authors Roles:

Olena Klimenko: conceptualización, curación de datos, análisis formal, adquisición de fondos, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Nubia Hernández-Florez: conceptualización, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Carlos Gómez-Galindo: conceptualización, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Liseth Moreno-Amaya: conceptualización, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

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William Pérez-Medina: conceptualización, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

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