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Self-Efficacy and Resilience as Mediators of the Relationship Between Social Support and Relapse Tendency Among Individuals with Substance Use Disorder in Indonesia

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A B S T R A C T

Introduction: Substance abuse has been a public health concern, and even after detoxification treatment, the relapse rate is still high. **Objectives**: To explore relationship between self-efficacy, resilience and social support with relapse tendency in substance use disorder in Indonesia. **Methods**: The study employed a cross-sectional design and was conducted at a rehabilitation hospital in Jakarta, Indonesia. In order to be eligible for the study, participants had to be at least 18 years old, have normal and stable cognitive states, and have been diagnosed with a substance use disorder in the last year by experienced psychiatrists. The study variables were measured using a psychological questionnaire of relapse tendency, a self-administered social support survey, a bidimensional resilience scale, and self-efficacy. Also, 5,000 bootstrap samples with 95% CIs were used to assess the significance of the potential moderating effects. **Results**: Of 200 sample, there were 120 males and 80 females, mean age was 37.56 (SD=5.89). Descriptive analysis showed social support (71.2 ± 23.45), self-efficacy (7.03 ± 3.49), resilience (55.5 ± 17.66), relapse tendency (39.7 ± 15.28). Social support was negatively associated with relapse tendency ($r = -0.689$, $p < 0.001$). Mediation analysis showed significant indirect associations through self-efficacy and resilience. The indirect pathway through self-efficacy accounted for 13.50% of the total effect, the pathway through resilience accounted for 12.69%, and the sequential pathway through self-efficacy and resilience accounted for 11.72%. Bootstrap confidence intervals for all indirect effects did not include zero, indicating statistical significance. **Conclusions**: Self-efficacy and resilience are the most important factors in the relationship between social support and the likelihood of relapse in patients with substance use disorders. Social support was associated with lower relapse tendency, and this association was partially explained by self-efficacy and resilience. Longitudinal studies are required to confirm the proposed mediation pathways.

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1. INTRODUCTION

Substance abuse is a public health issue, and relapse rates are high even after detoxification treatment. Drug addiction affects more than 35 million people worldwide (Xia et al., 2022a). In Indonesia, 3.66 million people used drugs in 2021, with 65.17 percent relapsing (Yamada, 2008). There is still a high rate of relapse even with the best medical treatment and rehabilitation support for people with substance abuse disorders (Krueger et al., 2000). Relapse rates after a year are 40–60%, but in Indonesia, they can be as high as 60% under the same conditions (Xia et al., 2022a). One crucial requirement for individuals to participate in a certain activity is that they have a relapse propensity. People with this tendency are more likely to engage in relapse behavior (Zeng & Wei, 2021). The more likely a person is to relapse, the greater the likelihood of relapse behavior (Childress et al., 2019). Physical dependence isn't the only thing that makes it hard for people with substance abuse problems to stop using. They also have a high rate of relapse. Pharmacological treatment is more difficult to implement, whereas psychotherapy is less prone to adverse drug reactions and possible interactions between drugs (J. Liu et al., 2019). Thus, the psychological mechanisms of relapse in substance abusers require more research.

Societal support is defined as a concept linked to concepts such as social equity, social connection, and social generosity (Y. Liu et al., 2020). Emotional and informational support are commonly given in support group sessions (Copeland & Martin, 2004; Cutrona et al., 2007; Cutrona & Russell, 1990; Mo & Coulson, 2008). There is proof that it helps to have both emotional and informational assistance. Emotional support (expressing caring, compassionate, or worries) aids in the management of emotional reactions, and obtaining it can be beneficial to health by adjusting for unpredictability, anxiety, and stereotyping (Burleson et al., 2009; Tracy et al., 2010; Wright, 2002). Previous research has also found that people who get emotional support are more likely to stop taking cocaine and less likely to share needles with other drug users (Gogineni et al., 2001). Women battling alcoholism who participated in an in-person support group reported high levels of motivation, respect, and listening attention(Tracy et al., 2010)

In terms of substance abuse, alcoholism, and other forms of antisocial behavior, social support plays a significant role (Havassy et al., 1991; L. Liu & Chui, 2014). The potential for substance misuse is greatly affected by one's immediate surroundings, say Daniel et al. According to the social support buffer concept, having supportive social networks makes it easier to handle and recover from stressful events. People who have a strong social support system are less likely to relapse and better able to cope with stressful situations (Wilkins, 2008; Zeng et al., 2021). There has been scant investigation into the link between social support and the likelihood of relapse among Indonesian drug users, despite the fact that both social support and its absence have been extensively studied in terms of their effects on clinical outcomes.

Confidence in one's ability to achieve one's goals is known as self-efficacy (Bandura, 2006; Bandura et al., 2006). One of the most powerful factors in changing health-related habits is self-efficacy (Bandura, 1997; Greco et al., 2014). Also, important to recognize is that self-efficacy has multiple dimensions and is dependent on the domain. When someone has a substance use disorder, self-efficacy means that they believe they can keep from relapsing (Burling et al., 1989; Hoeppner et al., 2011). Self-efficacy has been related to improved recovery outcomes such as smoking cessation (Lozano & Stephens, 2010) and reduced alcohol and illicit drug use (Forcehimes & Tonigan, 2008; Kelly & Greene, 2014).

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The impact of social support differs based on one's belief in one's own abilities. More inspiration and useful data were required for persons with poor self-efficacy, according to the study's authors (Saks, 1995a). Also, strong therapeutic alliance support from therapists improved patients' self-efficacy (Ilgen et al., 2006). This lines up with studies showing that people are more easily influenced by outside forces when they have poor self-efficacy (Hester et al., 2013). On the other hand, not all studies have found that those who lack confidence in their abilities need more social support. Because they are more open to and capable of utilizing social support, those who have high levels of self-efficacy often get substantial benefits from it (Dishman et al., 2009). Self-efficacy-challenged individuals may interpret social support as a sign of inadequacy (Yang et al., 2019). The function of self-moderating efficacy in assistance supply remains unknown. Helping others (by connecting with them and considering their emotions, for example) may boost the confidence and motivation of people with low self-efficacy, which might aid in their own rehabilitation. Those who have faith in themselves may be better equipped to handle the pressures of assisting others or perhaps use the support they give to aid in their own healing process.

Resilience is a new concept that has gained popularity in addiction recovery studies (Bartone et al., 2012). It is the capacity to seek out and tangible reward social and environmental resources, such as primary caregiver, social groups, or support mechanisms, that can help protect one's development during situations of pressure (Senaviratna & A Cooray, 2019). Resilience is a trait that can be learned (Luthar et al., 2000). There are two types of resilience: innate (individual) and obtained (quality of the environment) (Hirano, 2012; Kennedy et al., 2019). Resilient people are better able to deal with stress and recover soon from negative feelings, which has a positive impact on their physical and psychological health. A cross-sectional study found that people with higher levels of resilience were less likely to smoke or use drugs (Kennedy et al., 2019). Emotional regulation, the ability to tolerate negative emotions, and the capacity to ask for help can decrease the risk of substance abuse (Wingo et al., 2014). Support for people suffering from substance use disorders is also important because it can help them build their resilience and self-esteem (Xia et al., 2022b), which can help them recover.

Although previous studies have examined the mediating roles of self-esteem, resilience, family functioning, and psychological capital in relapse tendency among people with substance use disorders, most evidence originates from China. Cultural context, rehabilitation systems, family structures, and social support mechanisms differ substantially across countries. To our knowledge, no study has simultaneously examined the mediating roles of self-efficacy and resilience in the association between social support and relapse tendency among individuals with substance use disorder in Indonesia. Understanding these relationships within the Indonesian context may provide evidence for culturally appropriate psychosocial interventions targeting relapse prevention.

Using a chain-intermediate model grounded on the social support buffer theory, researchers examined the underlying psychological variables influencing relapse risk for drug users. In this study, we tested the following hypotheses: (1) the social support networks of people with substance use disorders are strongly associated with their relapse risk; (2) self-efficacy acts as a mediator between social support networks and relapse tendency; (3) resilience also acts as a mediator between social support networks and relapse tendency; and (4) patients' relapse tendency can be affected by the interplay of these three variables.

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2. METHODS

Study design

A cross-sectional study design was used to conduct an online questionnaire survey at drug rehabilitation hospital in Jakarta, Indonesia.

Participants

Participants were recruited using consecutive sampling from individuals receiving treatment at a drug rehabilitation hospital in Jakarta between January and June 2024. People aged above 18 years old with substance use disorders were included if they were diagnosed within the last 12 months by experienced psychiatrists using the DSM-5. Those with severe physical illnesses brain injury survivors, and those in psychotherapy were excluded.

Measure

Demographic factors questioned about in the questionnaire were as follows: age, gender, education, kind of substance, and length of being drug abusers.

The Geng Wenxiu psychological relapse tendency questionnaire was used. This scale has 18 items on it, such as how confident you are that you can get detoxification, how much drug in your environment influenced you, how much damage you have done to your body and mind, and how much support you have. It has a score of 6 (0 "almost impossible" 5 "very easy") The more points you get, the more likely you are to relapse. In this study, Cronbach's alpha was 0.732, indicating that the questionnaire had excellent internal consistency.

A patient-reporting social support survey tool was created for the Medical Outcomes Study and distributed to participants via self-administration (MOS). There are a total of nineteen items; eleven of them assess emotional/informational support, four measure tangible assistance, three measure affectionate support, and three evaluate pleasant social contact. A higher score on a specific scale or overall support index shows more support. The reliability of this survey instrument was determined to be 0.624 using Cronbach's alpha.

The Japanese-created Bidimensional Resilience Scale (41,42) was utilized in this research. There are 12 questions on intrinsic resilience that pertain to personal characteristics and 9 questions on acquired resilience that deal with environmental influences; together, they make up this scale. Some aspects of resilience are intrinsic and have deep roots in an individual's character, while others are learned and pertain to strategies for dealing with adversity. Optimism, self-control, sociability, and vitality were components of intrinsic resilience; striving to address a problem, self-awareness, and interpersonal understanding were components of learned resilience. The questions on this scale employs a five-point scoring system, where higher scores indicate more resilience. A Cronbach's α coefficient of 0.831 was found in this research.

The participants' self-efficacy was evaluated by having them answer the following question on a 10-point scale: "How confident are you that you will be completely abstinent in one year?" with 1 representing no confidence and 10 representing high confidence.

Procedure

Following clearance from the relevant university's institutional review board, the research was carried out. After each participant had received a thorough explanation of the procedures, they

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were required to give their informed consent. The information was gathered through the use of a questionnaire that was administered anonymously. Staff nurse from the drug rehabilitation control worked with the brigade to organize a group test for them. In order to minimize social pressure and increase test validity, emphasis was placed on the test's authenticity and confidentiality prior to the test taking. The test took between 15 and 20 minutes to finish.

Statistics analysis

All variables were checked for normality using the Kolmogorov Smirnov one-sample test. Using the Kolmogorov-Smirnov one-sample test, we ensured that all variables were normal. Demographic, social support, self-efficacy, resilience, and relapse risk scores were displayed using descriptive statistics. To investigate potential demographic variations in relapse tendency, we employed one-way ANOVA and independent sample t-tests. We utilized Pearson's correlation analysis to look for relationships between resilience, self-efficacy, social support, and relapse tendency. In addition, the bootstrap technique 43 was utilized in the intermediate analysis that was carried out using the PROCESS software. Standardization of all variables was done before to analysis. The dependent variable in this study was relapse propensity; the mediating factors were self-efficacy and resilience; and the covariates were age, gender, education, drug use, years of misuse, and living situation. To further ensure that the mediation and moderation effects were statistically significant, bootstrapping with 95% CIs was also employed. Results are considered statistically significant when the 95% CI does not contain zero. The aforementioned statistical studies were all executed using the SPSS 25.0 program.

3. RESULTS

Of the 200 people who took part, 120 were men and 80 were female; their average age was 37.56 (standard deviation=5.89). According to Table 1, 59% of the people who took the poll had finished secondary school. It seems that the probability of relapse is unaffected by factors such as age, level of education, substance used, and duration of drug use.

Table 1. Sociodemographic characteristics (N = 200)

Characteristics	*n*	%
Age (years), Mean (SD)	37.56 (5.89)	
Gender		
Male	120	60
Female	80	40
Education		
Primary school	65	32.5
Secondary school	100	50
Tertiary school	35	17.5
Type of drug use		
Heroin	56	28
Methamphetamine	90	45
Other drugs	54	27
Duration of being Drug abuser, Mean (SD)	7.21 (3.45)	

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Subjects with a history of substance addiction had high levels of social support (71.2 23.45), self-efficacy (7.03 3.49), resilience (55.5 17.66), and relapse likelihood (39.7 15.28), according to the descriptive analysis shown in Table 2. Study participants who reported high levels of social support were less likely to relapse and more likely to report high levels of self-efficacy and resilience (p 0.001). Relapse tendency was negatively correlated with self-efficacy ($r = -0.713$, $p < 0.001$) and resilience ($r = -0.760$, $p < 0.001$).

Table 2. Correlation between all variables (N = 200)

	Mean± SD	**1**	**2**	**3**	**4**
Social support	71.2 ± 23.45	1			
Self-efficacy	7.03 ± 3.49	0.582***	1		
Resilience	55.5 ± 17.66	0.701***	0.662***	1	
Relapse tendency	39.7 ± 15.28	−0.689***	−0.713***	−0.760***	1

****p < 0.001*.

The correlation between social support and the probability to relapse is strongly negative ($\beta = -6.970$, $p < 0.001$), as seen in Table 3. Further investigation was conducted on the mediating roles of resilience and self-efficacy in the relationship between social support and relapse tendency. The results demonstrated a strong negative correlation between social support and relapse tendency ($\beta = -6.092$, $p < 0.001$). Additionally, resilience ($\beta = -0.234$, $p = 0.001$) and self-efficacy ($\beta = -0.531$, $p = 0.01$) were shown to have significant negative effects on the likelihood of relapse. More so, social support improved self-efficacy ($\beta = 4.768$, $p = 0.001$) and resilience ($\beta = 6.175$, $p = 0.001$). Having a high self-esteem was also crucial, since it enhanced resilience ($\beta = 6.908$, $p = 0.001$). Social support was significantly associated with relapse tendency both directly and indirectly through self-efficacy and resilience. Also, through resilience, self-efficacy, and the sequential mediation of resilience and self-efficacy, it might indirectly influence the likelihood to relapse. This emphasizes the interconnected nature of these social and psychological factors in lowering the probability of recurrence.

Table 3. The mediation effect for relapse tendency.

		Regression coefficients			**Collinearity test**
Outcome	Predictors	R^2	β	*t*	Variance i
Relapse tendency	Social support	0.726	−6.970	−26.90***	1.113
Self-efficacy	Social support	0.780	4.768	23.25***	1.098
Resilience	Social support	0.861	6.908	8.04***	1.076
	Self-efficacy		2.365	10.56***	2.235
Relapse tendency	Family function	0.825	−6.09	−117.21***	1.890
	Self-efficacy		−0.531	−5.09**	1.567
	Resilience		−0.234	−6.32***	2.342

**p < 0.01,
***p < 0.001.

The findings demonstrated that social support affected relapse tendency directly, via self-efficacy and resilience as mediators, and through a chain reaction of these two variables. Both the direct and indirect effects amount to 58.00% and 37.34 percent, respectively. The intermediary effects of self-efficacy and resilience are 13.50% and 12.69%, respectively, whereas the chain effect of both variables is 11.72%.

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Table 4. Indirect effect of social support on relapse tendency via self-efficacy and resilience

Path	Coefficient	Relative effect (%)	95% confidence interval	
			Minimum	Maximum
Total effect	−6.339		−7.435	−5.634
Direct effect	−5.771	58.90	−6.601	−3.201
Total indirect effect	−3.572	37.34	−3.878	−1.645
Social support → self-efficacy → relapse tendency	−0.882	13.50	−1.607	−0.256
Social support → resilience → relapse tendency	−2.320	12.69	−2.481	−0.654
Social support → self-efficacy → resilience → relapse tendency	−0.902	11.72	−1.350	−0.781

The path analysis of the relationship between the four variables is performed based on the above results. Figure 1 illustrates how well the model matches the entire set of data.

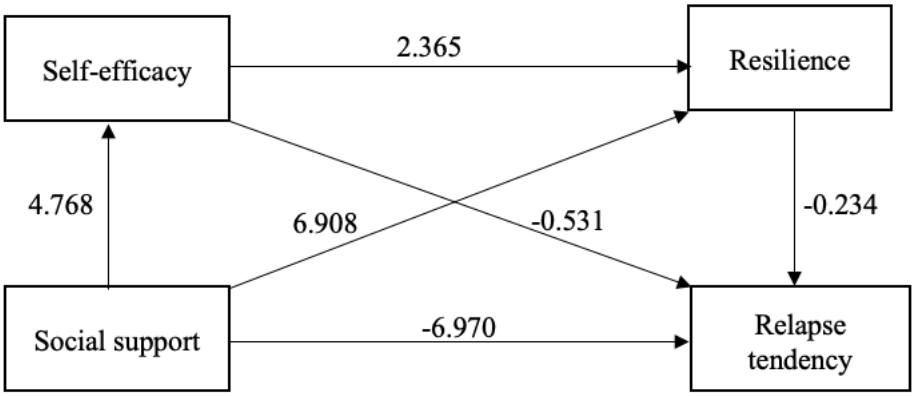

Figure 1. Path analysis social support on relapse tendency via self-efficacy and resilience

4. DISCUSSION

Consistent with previous studies, greater social support was associated with lower relapse tendency among individuals with substance use disorders. Social support may provide emotional, informational, and practical resources that help individuals cope with stressors and reduce vulnerability to substance use relapse. Individuals with stronger support networks may be better equipped to manage cravings, maintain treatment adherence, and develop adaptive coping strategies.

Consistent with a prior study (Zeng & Tan, 2021), this one also found that patients with drug use disorders had a higher propensity to relapse when they had strong social support systems. One possible explanation for the absence of self-control is a lack of social support. Patients have less social support and are more likely to act aggressively because they are unable to build healthy coping mechanisms and social communication skills due to a lack of social support. Furthermore, they may not have the mental tools or social support system to cope with stressful situations and avoid drug cravings (Tarantino et al., 2015). Social support is insufficient, making it difficult for patients to develop effective social communication and positive coping strategies, resulting in decreased social support and an increased level of aggression. Additionally, they lack the psychological resources and social support necessary to resist drug cravings during times of adversity or stress (Connor et al., 2004; Tomori et al., 2014). Additionally, they lack constructive

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solutions to the problem. By retaking drugs, it is possible to temporarily avoid or reduce negative emotional experiences such as anxiety, helplessness, and depression (Heatherton & Tice, 1994). Prior research on the role of self-efficacy in receiving social support is ambiguous (Baker et al., 2004; Saks, 1995b).

Additionally, we discovered that social support can influence relapse risk via a chain mediation of "self-efficacy-resilience." Specifically, substance use disorder patients' social support systems are dysfunctional, preventing them from receiving assistance. As a result, they have a low opinion of themselves, which results in a low level of self-efficacy. Simultaneously, individuals with low self-efficacy are unable to always confront problems appropriately and actively solve them, leaving them unable to recover quickly when confronted with difficulties. This indicates that their resilience is extremely low. Additionally, individuals with low resilience frequently use drugs to alleviate temporary problems and difficulties.

5. LIMITATIONS

The current study had a few limitations. Firstly, the psychological indicators of substance use disorder patients were evaluated through self-reports, which can be influenced by recall bias. Secondly, the study is cross-sectional, so it can't be used to draw causal conclusions. Lastly, the study couldn't test our hypotheses due to its small sample size, which was a result of the unique survey population. Lastly, we missed out on some additional data, like addiction severity, that would have helped interpret the results. Lastly, since all of the participants were from Jakarta, it's hard to say if the results can be applied to other settings. To find out, we will need to conduct a high-quality longitudinal study with a large, independent sample. Important clinical variables such as addiction severity, treatment duration, abstinence duration, and type of rehabilitation program were not available and therefore could not be controlled in the analyses. In addition, several clinically important variables, including addiction severity, duration of abstinence, treatment duration, and type of rehabilitation program, were not available for analysis. These factors may influence relapse tendency and should be considered in future studies.

6. CONCLUSIONS

Social support was significantly associated with relapse tendency among individuals with substance use disorders. This association was partially explained by self-efficacy and resilience. Because of the cross-sectional design, causal inferences cannot be drawn. Future longitudinal studies are needed to validate the proposed mediation model and determine the temporal relationships among these variables.

7. REFERENCES

Baker, T. B., Piper, M. E., McCarthy, D. E., Majeskie, M. R., & Fiore, M. C. (2004). Verslavingsmotivatie opnieuw geformuleerd: een affectief verwerkingsmodel van negatieve bekrachtiging. *Psychological Review*, *111*(1), 33–51.

Bandura, A. (1997). *Self-efficacy: the exercise of control NJ*. Prentice Hall.

Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-Efficacy Beliefs of Adolescents*, *5*(1), 307–337.

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e-ISSN 2477-3743 | p-ISSN 2541-0024

Bandura, A., Pajares, F., & Urdan, T. (2006). Self-efficacy beliefs of adolescents. *Guide for Constructing Self-Efficacy Scales*, *5*, 307–337.

Bartone, P. T., Hystad, S. W., Eid, J., & Brevik, J. I. (2012). Psychological hardiness and coping style as risk/resilience factors for alcohol abuse. *Military Medicine*, *177*(5), 517–524. https://doi.org/10.7205/MILMED-D-11-00200

Borkman, T. (2006). Sharing experience, conveying hope: Egalitarian relations as the essential method of Alcoholics Anonymous. *Nonprofit Management and Leadership*, *17*(2), 145–161. https://doi.org/10.1002/nml.140

Burleson, B. R., Hanasono, L. K., Bodie, G. D., Holmstrom, A. J., Rack, J. J., Gill Rosier, J., & McCullough, J. D. (2009). Explaining gender differences in responses to supportive messages: Two tests of a dual-process approach. *Sex Roles*, *61*, 265–280. https://doi.org/10.1007/s11199-009-9623-7

Burling, T. A., Reilly, P. M., Moltzen, J. O., & Ziff, D. C. (1989). Self-efficacy and relapse among inpatient drug and alcohol abusers: a predictor of outcome. *Journal of Studies on Alcohol*, *50*(4), 354–360. https://doi.org/10.15288/jsa.1989.50.354

Childress, A. C., Komolova, M., & Sallee, F. R. (2019). An update on the pharmacokinetic considerations in the treatment of ADHD with long-acting methylphenidate and amphetamine formulations. *Expert Opinion on Drug Metabolism & Toxicology*, *15*(11), 937–974. https://doi.org/10.1080/17425255.2019.1675636

Connor, D. F., Steingard, R. J., Cunningham, J. A., Melloni Jr, R. H., & Anderson, J. J. (2004). Proactive and reactive aggression in referred children and adolescents. *American Journal of Orthopsychiatry*, *74*(2), 129–136. https://doi.org/10.1037/0002-9432.74.2.129

Copeland, J., & Martin, G. (2004). Web-based interventions for substance use disorders: a qualitative review. *Journal of Substance Abuse Treatment*, *26*(2), 109–116. https://doi.org/10.1016/S0740-5472(03)00165-X

Cutrona, C. E., & Russell, D. W. (1990). *Type of social support and specific stress: Toward a theory of optimal matching.*

Cutrona, C. E., Shaffer, P. A., Wesner, K. A., & Gardner, K. A. (2007). Optimally matching support and perceived spousal sensitivity. *Journal of Family Psychology*, *21*(4), 754.

Dishman, R. K., Saunders, R. P., Motl, R. W., Dowda, M., & Pate, R. R. (2009). Self-efficacy moderates the relation between declines in physical activity and perceived social support in high school girls. *Journal of Pediatric Psychology*, *34*(4), 441–451. https://doi.org/10.1093/jpepsy/jsn100

Forcehimes, A. A., & Tonigan, J. S. (2008). Self-efficacy as a factor in abstinence from alcohol/other drug abuse: A meta-analysis. *Alcoholism Treatment Quarterly*, *26*(4), 480–489. https://doi.org/10.1080/07347320802347145

Gogineni, A., Stein, M. D., & Friedmann, P. D. (2001). Social relationships and intravenous drug use among methadone maintenance patients. *Drug and Alcohol Dependence*, *64*(1), 47–53.

Greco, A., Steca, P., Pozzi, R., Monzani, D., D'addario, M., Villani, A., Rella, V., Giglio, A., Malfatto, G., & Parati, G. (2014). Predicting depression from illness severity in cardiovascular disease patients: self-efficacy beliefs, illness perception, and perceived social support as mediators. *International Journal of Behavioral Medicine*, *21*, 221–229.

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e-ISSN 2477-3743 | p-ISSN 2541-0024

Havassy, B. E., Hall, S. M., & Wasserman, D. A. (1991). Social support and relapse: Commonalities among alcoholics, opiate users, and cigarette smokers. *Addictive Behaviors*, *16*(5), 235–246.

Heatherton, T., & Tice, D. M. (1994). Losing control: How and why people fail at self-regulation. *San Diego: Academic*.

Hester, R. K., Lenberg, K. L., Campbell, W., & Delaney, H. D. (2013). Overcoming Addictions, a Web-based application, and SMART Recovery, an online and in-person mutual help group for problem drinkers, part 1: three-month outcomes of a randomized controlled trial. *Journal of Medical Internet Research*, *15*(7), e2565.

Hirano, M. (2012). Review of resilience from the viewpoints of its innate and acquired aspects. *Bulletin of the Graduate School of Education, the University of Tokyo*, *52*, 411–417.

Hoeppner, B. B., Kelly, J. F., Urbanoski, K. A., & Slaymaker, V. (2011). Comparative utility of a single-item versus multiple-item measure of self-efficacy in predicting relapse among young adults. *Journal of Substance Abuse Treatment*, *41*(3), 305–312.

Ilgen, M., Tiet, Q., Finney, J., & Moos, R. H. (2006). Self-efficacy, therapeutic alliance, and alcohol-use disorder treatment outcomes. *Journal of Studies on Alcohol*, *67*(3), 465–472.

Kelly, J. F., & Greene, M. C. (2014). Where there'sa will there'sa way: a longitudinal investigation of the interplay between recovery motivation and self-efficacy in predicting treatment outcome. *Psychology of Addictive Behaviors*, *28*(3), 928.

Kennedy, B., Chen, R., Fang, F., Valdimarsdottir, U., Montgomery, S., Larsson, H., & Fall, K. (2019). Low stress resilience in late adolescence and risk of smoking, high alcohol consumption and drug use later in life. *J Epidemiol Community Health*, *73*(6), 496–501.

Kornfield, R. (2014). (Re) working the program: gender and openness in Alcoholics Anonymous. *Ethos*, *42*(4), 415–439.

Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Entrepreneurial intentions: A competing models approach. *Journal of Business Venturing*, *15*(5/6), 411–432.

Liu, J., Tian, J., & Li, J. (2019). Modulating reconsolidation and extinction to regulate drug reward memory. *European Journal of Neuroscience*, *50*(3), 2503–2512.

Liu, L., & Chui, W. H. (2014). Social support and Chinese female offenders' prison adjustment. *The Prison Journal*, *94*(1), 30–51.

Liu, Y., Kornfield, R., Shaw, B. R., Shah, D. V, McTavish, F., & Gustafson, D. H. (2020). Giving and receiving social support in online substance use disorder forums: How self-efficacy moderates effects on relapse. *Patient Education and Counseling*, *103*(6), 1125–1133.

Lozano, B. E., & Stephens, R. S. (2010). Comparison of participatively set and assigned goals in the reduction of alcohol use. *Psychology of Addictive Behaviors*, *24*(4), 581.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, *71*(3), 543–562.

Mo, P. K. H., & Coulson, N. S. (2008). Exploring the communication of social support within virtual communities: a content analysis of messages posted to an online HIV/AIDS support group. *Cyberpsychology & Behavior*, *11*(3), 371–374.

Saks, A. M. (1995a). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *Journal of Applied Psychology*, *80*(2), 211.

DOI: https://doi.org/10.17509/jpki.v12i1.96098
e-ISSN 2477-3743 | p-ISSN 2541-0024

Senaviratna, N., & A Cooray, T. M. J. (2019). Diagnosing multicollinearity of logistic regression model. *Asian Journal of Probability and Statistics*, *5*(2), 1–9.

Solomon, P. (2004). Peer support/peer provided services underlying processes, benefits, and critical ingredients. *Psychiatric Rehabilitation Journal*, *27*(4), 392.

Tarantino, N., Lamis, D. A., Ballard, E. D., Masuda, A., & Dvorak, R. D. (2015). Parent–child conflict and drug use in college women: A moderated mediation model of self-control and mindfulness. *Journal of Counseling Psychology*, *62*(2), 303.

Tomori, C., Go, V. F., Huong, N. M., Binh, N. T., Zelaya, C. E., Celentano, D. D., & Quan, V. M. (2014). "In their perception we are addicts": Social vulnerabilities and sources of support for men released from drug treatment centers in Vietnam. *International Journal of Drug Policy*, *25*(5), 897–904. https://doi.org/10.1016/j.drugpo.2014.04.012

Tracy, E. M., Munson, M. R., Peterson, L. T., & Floersch, J. E. (2010). Social support: A mixed blessing for women in substance abuse treatment. *Journal of Social Work Practice in the Addictions*, *10*(3), 257–282. https://doi.org/10.1080/1533256X.2010.500970

Wilkins, B. (2008). Book Review: Stress, Coping, and Development: An Integrative Perspective, by CM Aldwin. *New York, NY: Guilford*.

Wingo, A. P., Ressler, K. J., & Bradley, B. (2014). Resilience characteristics mitigate tendency for harmful alcohol and illicit drug use in adults with a history of childhood abuse: A cross-sectional study of 2024 inner-city men and women. *Journal of Psychiatric Research*, *51*, 93–99. https://doi.org/10.1016/j.jpsychires.2014.01.007

Wright, K. (2002). Social support within an on-line cancer community: An assessment of emotional support, perceptions of advantages and disadvantages, and motives for using the community from a communication perspective. *Journal of Applied Communication Research*, *30*(3), 195–209. https://doi.org/10.1080/00909880216586

Xia, Y., Gong, Y., Wang, H., Li, S., & Mao, F. (2022a). Family function impacts relapse tendency in substance use disorder: Mediated through self-esteem and resilience. *Frontiers in Psychiatry*, *13*, 815118. https://doi.org/10.3389/fpsyt.2022.815118

Yamada, K. (2008). Endogenous modulators for drug dependence. *Biological and Pharmaceutical Bulletin*, *31*(9), 1635–1638.

Yang, C., Zhou, Y., Cao, Q., Xia, M., & An, J. (2019). The relationship between self-control and self-efficacy among patients with substance use disorders: resilience and self-esteem as mediators. *Frontiers in Psychiatry*, *10*, 388.

Zeng, X., Lu, M., & Chen, M. (2021). The relationship between family intimacy and relapse tendency among people who use drugs: a moderated mediation model. *Substance Abuse Treatment, Prevention, and Policy*, *16*(1), 1–12.

Zeng, X., & Tan, C. (2021). The relationship between the family functioning of individuals with drug addiction and relapse tendency: A moderated mediation model. *International Journal of Environmental Research and Public Health*, *18*(2), 625.

DOI: https://doi.org/10.17509/jpki.v12i1.96098
e-ISSN 2477-3743 | p-ISSN 2541-0024

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