Chelonian Conservation And Biology

Vol. 19 No. 1 (2024) | https://www.acgpublishing.com/ | ISSN - 1071-8443

DOI: doi.org/10.18011/2024.01(1).1767-1784

ADVERSE CHILDHOOD EXPERIENCE, SOCIAL SUPPORT AND RELAPSE AMONG RECOVERING RESIDENTS OF SELECTED DRUG REHABILITATION CENTERS IN CEBU PROVINCE: A MEDIATED REGRESSION ANALYSIS

Monteros, Raymar Luke, RPm; **Yrog-irog, Ronald C.** RPsy
raymarluke.monteros@cit.edu, ronald.yrogirog@cit.edu

College of Arts, Sciences and Education
Department of Humanities and Behavioral Science

Abstract - This research probes into the interplay between Adverse Childhood Experiences (ACE), risk of relapse, and social support among Cebuano recovering residents in selected drug rehabilitation centers in Cebu. The primary objective is to explore how ACE relates to relapse risk and whether social support mediates this relationship. Participants are aged 18-59 which according to the Dangerous Drugs Board with the highest number of lifetime users. A total of N-119 participated in the study. Findings reveal a significant portion of participants reported low perceived social support (50.4%), with most having high ACE scores (61.3%) and moderate to high risk of relapse (77.3%). Spearman correlation analysis showed no significant link between ACE and relapse risk. Additionally, ACE did not directly predict relapse risk or perceived social support, but higher social support levels were associated with reduced relapse risk. The study underscores the critical role of perceived social support in mitigating relapse risk among recovering individuals, despite ACE's limited direct impact. These insights inform the importance of bolstering social support networks in substance use disorder recovery programs.

Keywords: Adverse Childhood Experience, Social Support, Relapse

Introduction

Adverse childhood experiences (ACE) are known to have lasting negative effects, predicting outcomes like substance addiction, poor academic performance, early sexual debut, and higher HIV susceptibility (Anda, 2018). International research confirms ACE's impact on future substance use, academic struggles, marital discord, increased suicide attempts, and lifetime depression (Almuneef et al., 2017; Merrick et al., 2017; Ege et al., 2010). In the Philippines, studies highlight ACE's correlation with depression and suicidal ideation, especially in marginalized communities (Antai et al., 2014; Ferrer & Moore, 2020). However, most research focuses on Luzon, leaving gaps for regions like Cebu province.

This study addresses this gap by examining the correlation between ACE and relapse risk among individuals in Cebu drug rehabilitation centers and assessing the role of social support in mitigating ACE's adverse effects. The research aims to enhance understanding of drug

rehabilitation, particularly relapse risk factors, and the importance of social support, providing valuable insights for individuals in recovery and professionals developing effective interventions.

Methods

Research Respondents

The study utilized complete enumeration sampling and purposive sampling. First, the researcher identified a specific subgroup or targeted sample based on certain criteria using the purposive sampling technique. Once the subgroup was identified, the researcher then conducted a complete enumeration of that specific subgroup or target population. This combination allowed the researcher to focus on a specific subset of the population that aligned with the research objectives while ensuring the inclusion of all relevant individuals from that subset.

The respondents of this study were substance users aged 18-59 years old, a group identified by the Dangerous Drugs Board as having the highest lifetime usage, who experienced Adverse Childhood Experiences (ACEs). A person could be a respondent if they met the following criteria: (1.a) a recovering resident of a rehab facility, (1.b) in the right state of mind, (2) experienced ACEs in their juvenile years, (3) aged 18-59 years during the study.

For exclusion criteria: (1.a) admitted to rehab because of alcoholism and gambling, (1.b) currently in the detox period, (1.c) the recovering resident was sick.

The researcher chose to study the recovering residents since substance use is rampant in the Philippines and has a major impact on individuals, families, and communities.

Research Design

The research employed a mediated regression analysis as its methodological approach, aiming to quantify the influence of social support concerning Adverse Childhood Experiences (ACE) and the subsequent risk of relapse. This analytical technique enabled the researchers to investigate the interplay between ACE, social support, and the risk of relapse among individuals in recovery. Notably, this approach ensured a methodically sound analysis, fostering robust and dependable conclusions regarding the causal relationships among these key variables.

Research Instrument

The study used tools to measure the variables, namely the Adverse Childhood Experiences (ACEs) Questionnaire, which the research respondents answered for the inclusion criteria assessment. The ACE Questionnaire (Felitti et al., 1998) is a 10-item measure of childhood trauma, assessing ten types of childhood trauma: physical abuse, verbal abuse, sexual abuse, physical neglect, emotional neglect, a parent who is an alcoholic, a mother who is a victim of domestic violence, a family member in jail, a family member diagnosed with a mental illness, and the disappearance of a parent through divorce, death, or abandonment.

The second instrument used was the Stimulant Relapse Risk Scale (SRRS), a 35-item tool for quantitatively evaluating relapse among stimulant users. The principal author of the SRRS, Takayuki Harada (2021), developed a Tagalog version of the tool, which was utilized in the study. The reliability of the Tagalog version of the SRRS had a significant positive correlation with all

other items (r = 0.15–0.79), and the Cronbach's alpha coefficient was 0.89. Therefore, the Tagalog version of the SRRS was confirmed to be reliable and valid (Harada et al., 2023).

Lastly, the Multidimensional Scale of Perceived Social Support (MSPSS) was used, a short instrument designed to measure an individual's perception of support from three sources: family, friends, and a significant other. This instrument consists of 12 questions and is widely used and well-validated (Zimet, Dahlem, Zimet, & Farley, 1988). The Cronbach's alpha coefficient of the scale is 0.88, and the re-test reliability of the tool is 0.85. The Multidimensional Scale of Perceived Social Support has also been used for research in Asian countries, with the study by Ma (2020) assessing measurement invariance of the MSPSS scale across Chinese and South Asian ethnic minority samples. The result provided evidence for the construct validity of the MSPSS for both Chinese and South Asian ethnic minority adolescents in Hong Kong, corresponding with the original three-factor model of the MSPSS found in Mexican Americans (Edwards, 2004).

In this research, the original versions of the MSPSS and ACE questionnaires were in English. Since the research respondents were from the Visayas region, which speaks the Bisayan dialect, a thorough translation process was undertaken to ensure the questionnaires' linguistic and cultural relevance. To achieve accurate translations, a qualified research translator with expertise in psychology and research first forward translated both questionnaires into the Bisayan dialect. Subsequently, another expert, also well-versed in research and psychology, performed a backward translation to verify the fidelity and consistency of the translated versions.

Following the translation process, a pilot testing phase was conducted with 10 participants. The pilot testing aimed to evaluate the clarity and comprehensibility of the translated questionnaires and identify any potential issues or areas for improvement. This step was essential to ensure that the questionnaires were culturally sensitive and effectively captured the intended information from the respondents.

The pilot testing results for the MSPSS and ACE questionnaires indicated high levels of reliability, as measured by Cronbach's alpha. The MSPSS questionnaire demonstrated excellent reliability, with a Cronbach's alpha of 0.93, indicating that the items in the MSPSS consistently measured the construct of perceived social support, and respondents' answers were internally consistent. The ACE questionnaire exhibited acceptable reliability, achieving a Cronbach's alpha of 0.73. While this value was slightly lower than the excellent reliability of the MSPSS, it still demonstrated that the ACE questionnaire was a reasonably reliable tool to measure adverse childhood experiences in the given context.

These reliability scores suggested that both questionnaires were suitable for use in the research among the Bisayan-speaking population in the Visayas region. The high reliability of the MSPSS indicated that it effectively measured perceived social support, while the acceptable reliability of the ACE questionnaire suggested that it provided a reasonable assessment of adverse childhood experiences. Researchers confidently used these questionnaires to gather valuable data for the study, contributing to a more comprehensive understanding of the relationship between perceived social support, adverse childhood experiences, and the risk of relapse in the target population.

Research Procedure

The study was conducted under the approval and supervision of the Chair of the Department of Psychology at the Cebu Institute of Technology–University. To ensure ethical considerations, the researcher submitted the paper for ethics review, enabling responsible decision-making that respected the values, concerns, and interests of the respondents. Before commencing the study, the researcher formally requested permission from various rehabilitation centers in Cebu province to conduct the research. Once approved, the researcher then applied inclusion and exclusion criteria to identify eligible participants, allowing for a final determination of the sample population size.

During the actual implementation of the research, the researcher prioritized explaining to the participants the assessments they were about to partake in. The questionnaires included the ACE questionnaire, Stimulant Relapse Risk Scale, and Multidimensional Scale of Perceived Social Support. These tools were administered in a familiar and comfortable setting within their respective rehabilitation centers. To ensure confidentiality, the researchers emphasized strict adherence to data privacy protocols. Any sensitive information collected from the respondents was handled with the utmost confidentiality and used solely for research purposes. In case of any questions or concerns, the researcher made himself available to debrief and provide further support and explanations to the respondents.

After gathering and analyzing the results, the study drew meaningful conclusions and contributed valuable insights to the field of research. The ethical approach throughout the study process ensured that the welfare and rights of the research respondents were upheld, and the findings were used responsibly for the betterment of the targeted population's well-being.

Ethical Considerations

In this study, several ethical considerations were carefully addressed:

Conflict of Interest: There was no conflict of interest with the researcher conducting the study.

Privacy and Confidentiality: The researcher ensured the privacy and confidentiality of respondents by using a coding system instead of collecting names or institutions. Physical files were secured and stored in a locked filing cabinet, and digital files were password-protected. Only the researcher had access to the information. Identifying details were also kept from experts analyzing the data, and individual results could not be accessed by anyone else for personal purposes. To ensure the privacy and anonymity of the rehabilitation facilities, the researcher used a coding system to represent each facility instead of using their actual names. This coding approach enabled the researcher to differentiate and distinguish the facilities in the study while safeguarding their identities.

Informed Consent Process and Vulnerability: Prospective respondents were provided with informed consent forms to document their voluntary participation. They were informed of their right to decline without penalty, and confidentiality was emphasized in the consent forms.

Recruitment: Approval was sought from rehabilitation facilities in Cebu, and informed consent was provided to the drug dependents and recovering individuals before data collection.

Risks: The study did not foresee any risks in responding to the survey questionnaire. Nonetheless, respondents were given a debriefing and free consultation after data collection to address any discomfort they might have experienced.

Benefits: The study was expected to contribute generalizable knowledge about substance users and the significance of social support in mitigating the adverse effects of ACE among drug dependents. The findings could raise community awareness and encourage initiatives to reduce substance use in Cebu.

Ethics Committee Approval: Once the study was revised and approved by the panel, the researcher requested approval from the University's Ethics Committee.

By addressing these ethical considerations, the study ensured the well-being, rights, and privacy of the research respondents. The researcher's commitment to ethical practices safeguarded the integrity and validity of the research while respecting the dignity and autonomy of the individuals involved.

Treatment of Data

In this study, the data gathered were subjected to mediation analysis, a statistical technique used to examine the relationship between variables. Specifically, the researcher aimed to investigate the influence of social support on the relationship between ACE and the level of risk of relapse among the research participants.

Mediated regression analysis enabled the researcher to determine the strength and direction of the relationship between the dependent variable, which was the risk of relapse, and the independent variables, ACE and perceived social support. By examining these associations, the study sought to identify which of the two independent variables had a more significant impact on the likelihood of relapse.

By employing this statistical approach, the research drew valuable insights into the interconnectedness of ACE, perceived social support, and relapse risk. The results of the mediation analysis contributed to a deeper understanding of the factors influencing relapse in the context of recovering individuals, thereby informing potential interventions and support strategies for substance use disorder rehabilitation.

Results

Table 1: Perceived Level of Social Support

Levels of Perceived Social Support	Frequency (f)	Percentage (%)
Low Perceived Social Support	60	50.4%
High Perceived Social Support	35	29.4%

Levels of Perceived Social Support	Frequency (f)	Percentage (%)
Moderate Perceived Social Support	24	20.2%
Total	**119**	**100%**

Table 1 presents the distribution of perceived social support levels among the research respondents. The results indicate that a majority of the respondents, 50.4% (f=60), reported having low perceived social support. This suggests that approximately one in every two respondents in the study perceives their social support as insufficient or inadequate. This perceived lack of a supportive network may lead to heightened emotional distress, increased vulnerability to mental health issues, and a reduced ability to effectively cope with life's challenges.

Conversely, 29.4% (f=35) of the respondents reported having high perceived social support, indicating a strong feeling of being connected to family, friends, and significant others who can provide reliable and available support, especially during times of need. Individuals with high perceived social support typically experience improved emotional well-being, enhanced resilience, and greater access to resources for coping, contributing to overall better mental health and a stronger ability to navigate life's difficulties.

The lowest percentage of perceived social support was the moderate level at 20.2% (f=24). This suggests that only a few respondents perceive their support network as neither strong nor inadequate, implying they experience a balance of autonomy and reliance on others.

The findings suggest that a significant proportion of the research participants perceive low social support, which could hinder their ability to cope with challenges and seek help when needed. This aligns with studies indicating that low social support can exacerbate feelings of isolation and hinder access to vital emotional and relational resources (Harandi, Taghinasab, & Nayeri, 2017). The higher prevalence of low perceived social support among the research respondents raises concerns about its potential impact on their recovery process, emphasizing the need for targeted interventions to enhance social support systems for individuals in drug rehabilitation (Polcin & Korcha, 2017).

Table 2: Level of Adverse Childhood Experience

Levels of Adverse Childhood Experience (ACE)	Frequency (f)	Percentage (%)
High Risk	73	61.3%
Intermediate Risk	46	38.7%
Total	**119**	**100%**

It is important to note that the median was used instead of the mean, as the data did not follow a normal distribution, as confirmed by the Shapiro-Wilk test ($W = .936$, $p < .001$). The median ACE score is reported as 4.00, indicating that half of the research respondents reported experiencing four or more types of adverse events during their childhood.

The majority of the respondents, 61.3% (f=73), were categorized as high risk, suggesting severe adversity during childhood. High-risk individuals are more likely to face a range of physical and mental health challenges (Webster, 2022). On the other hand, 38.7% (f=46) were found to have intermediate risk, indicating moderate exposure to adverse events with potentially significant impacts on their well-being. The findings underscore the need to address childhood trauma within drug rehabilitation programs to mitigate its long-term consequences on individuals' mental health and recovery outcomes (Anda, 2018; Dube et al., 2003).

Table 3: Level of Risk for Relapse of the Research Respondents

Levels of Risk of Relapse	Frequency (f)	Percentage (%)
Moderate Risk of Relapse	65	54.6%
High Risk of Relapse	27	22.7%
Low Risk of Relapse	27	22.7%
Total	**119**	**100%**

The results indicate that most of the participants, 54.6% (f=65), were categorized as having a moderate risk of relapse. A smaller percentage of respondents, 22.7% (f=27), were reported to have a high risk of relapse, and the same percentage, 22.7% (f=27), was found to have a low risk of relapse.

These findings suggest that a higher proportion of research respondents fall within the moderate to high risk of relapse categories. This highlights the need for interventions and ongoing support to maintain sobriety and prevent relapse (Melemis, 2015). The prevalence of moderate to high relapse risk aligns with studies indicating that individuals in recovery face significant challenges in maintaining long-term sobriety, often exacerbated by underlying mental health issues and environmental triggers (Kabisa, Biracyaza, Habagusenga, & Umubyeyi, 2021).

Table 4: Relationship between ACE and the Level of Risk of Relapse

Adverse Childhood Experiences	Level of Risk of Relapse	Frequency (f)	Percentage (%)
High Risk	Moderate Risk	36	30.3%
	High Risk	18	15.1%
	Low Risk	19	16.0%
Intermediate Risk	Moderate Risk	29	24.4%
	High Risk	9	7.6%
	Low Risk	8	6.7%

Based on the findings in Table 4, there is no significant relationship between ACE and the level of risk of relapse, as indicated by the correlation coefficient of rs = -.026 and a p-value of .782. This suggests that the adverse childhood experiences reported by the research participants do not appear to have a substantial impact on their level of risk for relapse during their recovery process.

While ACEs are known to contribute to the development of substance use disorders and impact mental and emotional well-being, they may not be the sole determinant of relapse risk. Other factors such as current stressors, coping skills, social support, and access to treatment and resources may play a more prominent role in influencing relapse vulnerability (Choi, DiNitto, Marti, & Choi, 2017). This highlights the complexity of addiction recovery and the need for comprehensive, individualized approaches that address the unique circumstances and needs of everyone.

Table 5: Relationship between Perceived Level of Social Support and Risk of Relapse

Level of Perceived Social Support	Level of Risk of Relapse	Frequency (f)	Percentage (%)
Low Support	Moderate Risk	35	29.4%
	High Risk	25	21.0%
	Low Risk	0	0.0%
High Support	Moderate Risk	10	8.4%
	High Risk	1	0.8%
	Low Risk	24	20.2%
Moderate Support	Moderate Risk	20	16.8%
	High Risk	1	0.8%
	Low Risk	3	2.5%

The findings indicate a significantly negative and strong relationship between the level of perceived social support and the level of risk of relapse, as evidenced by the correlation coefficient of rs = -.686 and a p-value of less than 0.001. This implies that as the level of perceived social support decreases, the risk of relapse tends to increase. Conversely, as the level of perceived social support increases, the risk of relapse tends to decrease (Arabshahi, Mohammad-Beigi, Mohebi, & Gharlipour, 2023).

Consistent with studies by Moos and Moos (2007) and Tracy et al. (2012), these findings underscore the critical role of social support in reducing relapse risk. Individuals with strong social support networks exhibit a diminished susceptibility to relapse, highlighting the importance of integrating social support interventions within drug rehabilitation programs. Using ordinary least squares path analysis, a mediation analysis was conducted to investigate the potential mediating role of perceived social support between ACE and the risk of relapse.

Table 6: Mediation Analysis: The Influence of Social Support toward ACE and Relapse

Type	Effect	Estimate	SE	95% C.I (a) Lower	Upper	β	z	p
Indirect	ACE ⇒ Social Support ⇒ Risk of Relapse	0.067	0.035	0.016	0.134	0.131	2.143	0.032
Total	ACE ⇒ Risk of Relapse	0.089	0.029	0.036	0.164	0.219	3.069	0.002

The path analysis demonstrates that perceived social support mediates the relationship between ACE and the risk of relapse. The direct effect of ACE on relapse is significant ($\beta = 0.219$, $p = 0.002$), while the indirect effect through social support is also significant ($\beta = 0.131$, $p = 0.032$), indicating that social support partially mediates this relationship.

The mediation analysis highlights the crucial role of social support in mitigating the impact of ACE on relapse risk. This aligns with findings suggesting that social support acts as a protective buffer against the negative effects of early-life adversity, thereby reducing the likelihood of relapse (Salazar-Pousada, 2023). Enhancing social support within rehabilitation programs could thus be a key strategy for improving recovery outcomes among individuals with high ACE scores.

Discussion

Perceived Level of Social Support

The study revealed that a significant portion of the respondents reported low perceived social support (50.4%). This finding is concerning as low social support is often associated with various negative outcomes, including increased risk of mental health issues, substance use disorders, and difficulties in recovery processes (Harandi et al., 2017). The substantial proportion of respondents reporting low social support suggests a need for targeted interventions to improve social support networks within drug rehabilitation programs. Enhancing social support could potentially mitigate the adverse effects of isolation and strengthen the overall recovery process.

In contrast, only 29.4% of respondents reported high perceived social support, which aligns with the existing literature suggesting that individuals with strong support networks are more likely to experience better recovery outcomes (Moos & Moos, 2007). This highlights the importance of fostering strong social connections and support systems as part of addiction treatment and recovery programs.

Adverse Childhood Experience (ACE)

The analysis indicated that most of the respondents (61.3%) reported high levels of ACEs, underscoring the significant impact of early-life adversities on individuals. High ACE scores are linked to increased risks of various health issues, including substance use disorders and mental health problems (Anda, 2018; Dube et al., 2003). The high prevalence of ACEs among respondents highlights the need for comprehensive approaches that address childhood trauma in addiction treatment and recovery. Programs that integrate trauma-informed care and support may be more effective in helping individuals with high ACEs achieve long-term recovery.

Risk of Relapse

The results demonstrated that most respondents were at moderate risk of relapse (54.6%), with 22.7% at both high and low risk. The high proportion of individuals at moderate to high risk of relapse is consistent with existing research that emphasizes the ongoing challenges individuals face in maintaining sobriety (Melemis, 2015). This finding underscores the importance of continuous support and interventions tailored to manage relapse risk effectively.

Relationship between ACE and Risk of Relapse

The lack of a significant relationship between ACE and the risk of relapse, as indicated by the correlation coefficient ($rs = -.026$, $p = .782$), suggests that while ACEs contribute to the development of substance use disorders, they may not be a direct predictor of relapse risk. This finding emphasizes the complexity of addiction recovery, where multiple factors, including current stressors, coping mechanisms, and social support, play critical roles in influencing relapse outcomes (Choi et al., 2017). It is essential to consider these multifaceted aspects when designing and implementing relapse prevention strategies.

Relationship between Perceived Social Support and Risk of Relapse

The significant negative correlation between perceived social support and risk of relapse ($rs = -.686$, $p < 0.001$) underscores the protective role of social support in preventing relapse. As the level of perceived social support increases, the risk of relapse decreases, highlighting the importance of integrating social support into addiction recovery programs (Arabshahi et al., 2023). This finding reinforces the need for interventions that strengthen social networks and support systems to improve recovery outcomes.

Perceived Social Support as a Mediating Factor

The mediation analysis revealed that perceived social support partially mediates the relationship between ACE and the risk of relapse. This suggests that while ACEs have a direct impact on relapse risk, social support also plays a crucial role in buffering this effect. Enhancing social support can mitigate the adverse effects of ACEs on relapse risk, indicating the importance of incorporating social support strategies into treatment plans for individuals with high ACEs (Salazar-Pousada, 2023).

Limitations

Continued research is crucial for deepening our understanding and improving interventions for individuals in recovery. It is particularly important to explore the adverse effects of ACEs beyond merely quantifying their scores. While this study focused on numerical ACE scores, a more nuanced examination of how these experiences affect individuals, irrespective of their score, could uncover additional dimensions of their lasting impact on well-being. Additionally, further investigation into other factors influencing relapse vulnerability is necessary. Although no direct correlation between past experiences and relapse risk was found in this study, identifying other potential triggers and vulnerabilities could enhance rehabilitation programs. Such research has the potential to reveal previously unrecognized factors and refine strategies for more effective recovery support.

Conclusion

The study reveals that a significant number of participants experience low perceived social support while also having high ACE scores, indicating substantial early-life adversities and inadequate support networks. Surprisingly, there was no direct correlation between ACE and

relapse risk, suggesting a more intricate relationship. The results showed that ACE did not directly affect relapse risk or perceived social support. Instead, perceived social support has a negative correlation with relapse risk, underscoring its importance in preventing relapse. These findings suggest that while ACE alone may not directly predict relapse risk, strengthening social support systems is essential for successful recovery. The results advocate for targeted strategies to enhance support structures for individuals recovering from substance use disorders.

References

Acebes-Escobal, B., Nerida, M., & Chez, R. (2001). Abuse of women and children in a Philippine community. *International Journal of Gynecology & Obstetrics*, 213-217.

Ackeret, N., Röthlin, P., Allemand, M., Krieger, T., Berger, T., Znoj, H., . . . Horvath, S. (2022). Six-month stability of individual differences in sports coaches' burnout, self-compassion and social support. *Psychology of Sport and Exercise*.

Al Abeiat, D. D., Hamdan-Mansour, A. M., Hanouneh, S. I., & Ghannam, B. M. (2019). Psychosocial Predictors of Relapse Among Patients with Alcohol Problems. *PubMed Central*, 19-25.

Almuneef, M., ElChoueiry, N., Saleheen, H., & Al-Eissa, M. (2017). The impact of Adverse Childhood Experiences on social determinants among Saudi adults. *Journal of Public Health*, 1-9.

Anda, R. (2018). The Role of Adverse Childhood Experiences in Substance Misuse and Related Behavioral Health Problems. *Education Development Center*, 1-6.

Antai, D., Oke, A., Braithwaite, P., & Lopez, G. B. (2014). The Effect of Economic, Physical, and Psychological Abuse on Mental Health: A Population-Based Study of Women in the Philippines. *International Journal of Family Medicine*, 01-11.

Arabshahi, A., Mohammad-Beigi, A., Mohebi, S., & Gharlipour, Z. (2023). Prediction of Addiction Relapse Based on Perceived Social Support and Childhood Trauma. *PubMed Centrsl*, 253-259.

Ashley, M. (2023, February 9). *Importance of Social Connections in Recovery*. Retrieved from https://www.ashleytreatment.org/: https://www.ashleytreatment.org/rehab-blog/social-connections-in-recovery/#:~:text=Connection%20in%20recovery&text=People%20in%20recovery%20who%20lack,provide%20immense%20mental%20health%20benefits.

Boardwalk Recovery Center. (2022, September 7). *Social Support in Addiction Recovery*. Retrieved from https://boardwalkrecoverycenter.com/: https://boardwalkrecoverycenter.com/social-support-in-addiction-recovery/

Brian, L., & Cohen, S. (2000). *Social support: Theory, Measurement and Intervention.* Michigan: Oxford University Press.

Cai, W., Ding, C., Tang, Y.-L., & Wu, S. (2014). Effects of Social Supports on Posttraumatic Stress Disorder Symptoms: Moderating Role of Perceived Safety. *Psychological Trauma: Theory, Research, Practice, and Policy*, 724-730.

Chi, X., Jiang, W., Guo, T., Hall, D. L., Luberto, C. M., & Zou, L. (2021). Relationship between adverse childhood experiences and anxiety symptoms among Chinese adolescents: The role of self-compassion and social support. *Current Psychology*, 121-144.

Chi, X., Jiang, W., Guo, T., Hall, D. L., Luberto, C. M., & Zou, L. (2022). Relationship between adverse childhood experiences and anxiety symptoms among Chinese adolescents: The role of self-compassion and social support. *Current Psychology*, 22-25.

Choi, N. G., DiNitto, D. M., Marti, N., & Choi, B. Y. (2017). Association of adverse childhood experiences with lifetime mental and substance use disorders among men and women aged 50+ years. *Journal of Public Health*, 359-372.

Cohen, S., & Hoberman, H. M. (1983). Positive Events and Social Supports as Buffers of Life Change Stress. *Journal of Applied Social Psychology*, 99-125.

Derefinko, K. J., Salgado García, F. I., Talley, K. M., Bursac, Z., Johnson, K. C., Murphy, J. G., . . . Sumrok, D. D. (2019). Adverse childhood experiences predict opioid relapse during treatment among rural adults. *Addictive Behaviors* , 171-174.

Derefinko, K. J., Salgado García, F. I., Talley, K. M., Bursac, Z., Johnson, K. C., Murphy, J. G., . . . Sumrok, D. D. (2019). Adverse childhood experiences predict opioid relapse during treatment among rural adults. *Addictive Behaviors*, 171-174.

Ege, M. A., Messias, E., Thapa, P., & Krain, L. P. (2010). Adverse Childhood Experiences and Geriatric Depression: Results from the 2010 BRFSS. *American Journal of Geriatric Psychiatry*, 110-114.

Felitti, V. J. (2002). The relationship of adverse childhood. *Zeitschrift fur Psychosomatische Medizin und*, 359-369.

Ferrer, Y. J., & Moore, R. (2020). The Prevalence of Adverse Childhood Experiences in Payatas, an Urban Poor Community in the Philippines. *Philippine Social Science Journal*, 24-32.

Goddard, A. (2021). Adverse Childhood Experiences and Trauma-Informed Care. *National Library of Medicine* , 145-155.

Gorski, T. T. (2015). The Cenaps Model of Relapse Prevention: Basic Principles and Procedures. *Journal of Psychoactive Drugs*, 125-133.

Guenzel, N., & McChargue, D. (2024). *Addiction Relapse Prevention.* Florida USA: StatPearls Publishing.

Harada, T., Nomura, K., Baba, T., Shirasaka, T., Takano, A., & Kanamori, S. (2023). Development and validation of Tagalog versions of the Drug Abuse Screening Test-20 (DAST-20) and Stimulant Relapse Risk Scale (SRRS) for drug users in the Philippines. *PubMed Central*, 13-18.

Harandi, T. F., Taghinasab, M. M., & Nayeri, T. D. (2017). The correlation of social support with mental health: A meta-analysis. *Electronic Physician*, 5212-5222.

Havassy, B., Hall, S., & Wasserman, D. (1991). Social support and relapse: commonalities among alcoholics, opiate users, and cigarette smokers. *Addictive Behaviors*, 16-46.

He, J., Yan, X., Wang, R., Zhao, J., Liu, J., Zhou, C., & Zeng, Y. (2022). Does Childhood Adversity Lead to Drug Addiction in Adulthood? A Study of Serial Mediators Based on Resilience and Depression. *Frontiers in Psychiatry*, 87-89.

He, J., Yan, X., Wang, R., Zhao, J., Liu, J., Zhou, C., & Zeng, Y. (2022). Does Childhood Adversity Lead to Drug Addiction in Adulthood? A Study of Serial Mediators Based on Resilience and Depression. *Front Psychiatry*, 13-18.

Kabisa, E., Biracyaza, E., Habagusenga, J. d., & Umubyeyi, A. (2021). Determinants and prevalence of relapse among patients with substance use disorders: case of Icyizere Psychotherapeutic Centre. *PubMed* , 13-16.

Kostić, M., Lazarević, L., Maravić, V. M., Vončina, M. M., Kirćanski, J. R., Stojković, A., & Videnović, M. (2019). *Adverse Childhood Experiences (ACE) Study.* Serbia: Regina De Dominicis, UNICEF Representative.

Krieger, C. (2021). *Relationship Between Social Support and Childhood Trauma on Resilience.* Minnesota: Walden Dissertations and Doctoral Studies Collection.

Lauvsnes, A. D., Grawe, R. W., & Langaas, M. (2022). Predicting Relapse in Substance Use: Prospective Modeling Based on Intensive Longitudinal Data on Mental Health, Cognition, and Craving. *PubMed Central*, 7-12.

Ma, C. M. (2020). Measurement Invariance of the Multidimensional Scale of Perceived Social Support Among Chinese and South Asian Ethnic Minority Adolescents in Hong Kong. *Frontiers in Psychology*, 11.

Marquez, C. (2019, August 28). *Makati sees 80% relapse rate among drug users in rehab*. Retrieved from newsinfo.inquirer.net: https://newsinfo.inquirer.net/1158679/makati-sees-80-relapse-rate-among-drug-users-in-rehab

McLellan, A., Lewis, D., O'Brien, C., & HD, K. (2000). Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *National Library of Medicine* .

Melemis, S. M. (2015). Relapse Prevention and the Five Rules of Recovery. *PMC PubMed Central*, 325-332.

Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect*, 10-19.

Moos, R. H., & Moos, B. S. (2007). Protective resources and long-term recovery from alcohol use disorders. *PudMed*, 46-54.

Naik, A. R., & Khan, S. M. (2019). POST TRAUMATIC GROWTH: AN OVERVIEW. *International Journal of Advance and Innovative Research*, 2394-7780.

Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C., Charney, D., & Southwick, S. (2007). Social Support and Resilience to Stress. *National Library of Medicine* , 35-40.

Parisi, T. (2019, October 24). *Alcohol Rehab Guide*. Retrieved from www.alcoholrehabguide.org: https://www.alcoholrehabguide.org/blog/three-stages-relapse/

Polcin, D. L., & Korcha, R. (2017). Social Support Influences on Substance Abuse Outcomes Among Sober Living House Residents with Low and Moderate Psychiatric Severity. *PubMed Central*, 51-70.

Ramo, D. E., Anderson, K. G., Tate, S. R., & Brown, S. A. (2005). Characteristics of relapse to substance use in comorbid adolescents. *PubMed Central*, 11-23.

Sanderson, M., Mouton, C. P., Cook, M., Liu, J., Blot, W. J., & Hargreaves, M. K. (2021). Adverse Childhood Experiences and Chronic Disease Risk in the Southern Community Cohort Study. *National Library of Medicine*, 1384-1402.

Serquina-Ramiro, L., Madrid, B. J., & Amarillo, M. L. (2004). Domestic Violence in Urban Filipino Families. *Asian Journal of Women's Studies*, 97-119.

Services, U. D. (2016). *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health [Internet].* Washington DC: Substance Abuse and Mental Health Services Administration (US); Office of the Surgeon General (US).

Shafiei, E., Hoseini, A. F., Parsaeian, F., Heidarinejad, A., & Azmal, M. (2016). Relapse Coping Strategies in Young Adults Addicts: A Quantitative Study in Iran. *PubMed Central*, 46-49.

Sharma, A. K., Upadhyaya, S. K., Bansal, P., & Sharma, N. D. (2012). A study of factors affecting relapse in substance abuse. *Indian Journal of Life Sciences*, 28.

Sinha, R. (2011). New Findings on Biological Factors Predicting Addiction Relapse Vulnerability. *National Library of Medicine*, 398-405.

Smith, B. T., Brumage, M. R., Zullig, K. J., Claydon, E. A., Smith, M. L., & Kristjansson, A. L. (2021). Adverse childhood experiences among females in substance use treatment and their children: A pilot study. *Preventive Medicine Reports*, 24.

Suwanchatchai, C., Buaphan, S., & Khuancharee, K. (2024). Determinants and prevalence of relapse among patients with substance use disorder in a rural population: A retrospective observational study. *Journal of Substance Use and Addiction Treatment*, 2949-2959.

Tedeschi, R. G., Shakespeare-Finch, J., Taku, K., & Calhoun, L. G. (2018). *Posttraumatic Growth.* New York: Behavioral Sciences, Health and Social Care.

Tedeschi, R. G., Shakespeare-Finch, J., Taku, K., & Calhoun, L. G. (2018). *Posttraumatic Growth Theory, Research, and Applications.* Routledge.

Tracy, E. M., Laudet, A. B., Min, M. O., Kim, H., Brown, S., Kyoung Jun, M., & Singer, L. (2012). Prospective Patterns and Correlates of Quality of Life among Women in Substance Abuse Treatment. *National Library of Medicine*, 242-249.

VanderEnde, K., Chiang, L., Mercy, J., Shawa, M., Hamela, J., Maksud, N., . . . Hillis, S. (2018). Adverse Childhood Experiences and HIV Sexual Risk-Taking Behaviors Among Young Adults in Malawi. *Journal of Interpersonal Violence*, 1710-1730.

Wardell, J. D., Kempe, T., Rapinda, K. K., Single, A., Bilevicius, E., Frohlich, J. R., . . . Keough, M. T. (2020). Drinking to Cope During COVID-19 Pandemic: The Role of External and Internal Factors in Coping Motive Pathways to Alcohol Use, Solitary Drinking,and Alcohol Problems. *National Library of Medicine* , 2073-2083.

Webster, E. M. (2022). The Impact of Adverse Childhood Experiences on Health and Development in Young Children. *National Library of Medicine*, 9-26.

Zaidi, U. (2020). Role of Social Support in Relapse Prevention for Drug Addicts. *International Journal of Innovation, Creativity and Change*, Volume 13.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 31-40.