Levels of Relapse Risk among Substance Use Addicts in Langata Sub-County, Nairobi, Kenya

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ABSTRACT

Substance use rehabilitation among individuals in recovery is significant to parents, peers, therapists and other stakeholders across the globe. Despite advances in addiction treatment, relapse rates remain extremely high. This study examined the levels of relapse risk among substance use addicts in Langata sub-county, Nairobi, Kenya. The study was grounded on Relapse prevention theory. The study employed descriptive research design. Through census method, the study utilized a sample size of 144 participants. The study utilized the Stimulant Relapse Risk Scale (SRRS), to collect data. The data was analyzed using descriptive statistics specifically percentages and frequencies. The results showed that there were 3 (2.4%) respondents were in the category of low level of stimulant relapse risk. There were 71 (56.8%) respondents were in the category of moderate level of stimulant relapse. There were 51(40.8%) respondents who scored in category of high level of stimulant relapse risk. The study recommends to rehabilitation centers in Langata Sub-County to ensure follow ups of their clients' progress in their families in order to reduce the chances of relapsing. The rehabilitation centers also need to provide family counseling in order to deal with family issues that could be contributing to substance abuse and also high risk of relapsing. Also, to reduce the chances of relapse among the substance use addicts, there is a need to encourage addicts to see the importance of going through treatment without forcing them. Families also need to be encouraged to create a favorable environment that would allow substance use addicts to have lower chances of relapsing after going through treatment and counseling.

Keywords: Levels, relapse risk, substance use addicts, Langa'ta Sub-County, Nairobi

INTRODUCTION

Relapse risk is a crucial concern in addiction treatment, as relapses may arise from a range of psychological, physical, and environmental triggers. Prior research by Sinha (2024) identified several factors contributing to relapses, including the severity of addiction, co morbidities with other mental health disorders, and the individual's age and gender. Additionally, poor social support (Nickmanesh, 2017), socio-economic factors (Kabisa et al., 2021), treatment duration (Decker, 2017), and aftercare practices (McKay, 2021) are notable contributors. Substance use addiction poses a substantial global health challenge, with profound social, economic, and personal repercussions. A primary concern for healthcare professionals and policymakers is the high relapse rate among individuals recovering from substance use disorders (SUDs). Deepening the understanding of substance use rehabilitation and risk of relapse is vital for effective intervention in treatment and recovery.

Several studies have interrogated the importance of self-functioning regarding the internal capacities and how the related factors impact the relapse risk in patients with SUDs. Yamashita et al. (2021) carried out a quantitative method study using cross-sectional survey in Japan to explore resilience and levels of relapse risk. Participants were recruited from one medical center and three rehabilitation facilities that supported therapy groups within Chugoku and Kinki areas. Fifty-two participants completed self-administered questionnaires. A total of 52 responses were obtained, with a response rate of 65%. The results indicated that stimulants were the most frequently used substances associated with SUDs, (n=26,21.7%).The findings of the study demonstrated a significant correlation between resilience and relapse risk, with higher levels of resilience being strongly

linked to a reduced likelihood of relapse ($r = -0.314$, $P < 0.01$). This study used a low number of respondents; the current study collected to collect data from a larger number of participants.

Sohrabpour et al. (2024), in a study conducted in Shiraz, Iran, sought to identify levels of SUD relapse using Theory of Planned Behavior (TPB) among male SUD users undergoing recovery in Southern Iran. This quantitative study used a cross-sectional design with 400 participants from the treatment centers between 2021 and 2022. Data was collected using a researcher-developed questionnaire. Findings indicated that 342 participants (85.5%) experienced previous relapses, and 172 of them (50.29%) experienced between 1 to 5 relapses. In subsequent research conducted in Kandahar, Afghanistan, by Stanikzai and Wahidi (2023), evaluated the bio-psycho-social profile of individuals with SUD relapse who were being treated at 3 designated facilities. The facility-based cross-sectional analysis was carried out among individuals with SUDs under care at three designated recovery centers from November to December 2022 with 586 respondents. The average age of respondents was 34.41 years (± 10.10 SD). A significant number of participants' physical health (81.2%) was rated as extremely good or fair, with two-thirds of the majority (73.4%) reporting high levels of social support. Among the subjects, 541 (87.1%) showed high depression levels, 569 (91.6%) high levels of anxiety, and 442 (71.2%) experienced high levels of stress. Notably, severe depression was prevalent at 34.8%, anxiety at 65.8%, and stress was at 27.3%. This study focused more on a larger population of incarcerated individuals while the current study focused on individuals undergoing substance use rehabilitation.

Rasmewak et al. (2020) in Mauritius sought to determine the prevalence and causation of relapse risk among male addicts. This quantitative cross-sectional study was carried out over a period of six months, involving 180 male addicts admitted at a public facility. The tools used for this study were Resistance to Peer Influence Scale (RPIQ) and The Rosenberg self-esteem scale. The study findings indicated a huge number (92%) of the respondents experienced relapse after recovery. Specifically, 29% relapsed after three months, and only 17% were abstinent between one to three years. Across the different levels, 59% were unable to maintain sobriety for more than a year. The study was conducted only among one gender of participants; the current study included both men and women who are in substance use rehabilitation.

In a regional study conducted in Rwanda by Kabisa et al. (2021) investigated the prevalence of relapse in substance use at the Psychotherapeutic Centre of Icyizere (IPC). This quantitative cross-sectional survey included 391 individuals with SUD at IPC. Most participants were male (84.1%), with majority (54.1%) between ages 18 and 30 years, and average age of 33 (SD=11.9 years). Findings revealed that relapse was more prevalent among individuals with SUD with58% relapsing within two weeks to three months after treatment. High levels of relapse (90%) were found in consumption of a single drink post treatment. Equally, overall high score of relapse rate was at 59.9%, and 11.2% relapse for treatment period below 3 months. While this study focused more on the determinants of relapse, the current study will focus on personality functions and whether they affect increased risk of relapse or not.

In a recent study by Abdulla, (2021), in Unguja, Zanzibar, the researcher aimed at identifying key contributors associated with relapse among recovering SUD addicts in the urban area. The study targeted a population of 90 individuals from three sober houses, comprising every recovering addict who had relapsed and 12-step program therapists at selected treatment facilities. The study employed a mixed method cross-sectional research design and collected qualitative as well as quantitative data from 74 recovering drug addicts who had relapsed at least once during their recovery journey. Recovering addicts were selected based on their relapse experiences, providing valuable insights drawn from their personal life experiences. Data collection tools included questionnaires and semi-structured interviews. Findings revealed that issues related to self-regulation, such as the inability to control their drinking habits, failure to learn from the past, not learning from consequences, and not adhering to their own standards, were significant factors contributing to risk of relapse. Regression analysis results confirmed a significant positive correlation between associated social risk factors and relapses, with all p-values being less than 0.05. Furthermore, the regression analysis indicated a significant relationship between self-regulation and relapse, with a p-value of 0.028.The study used a mixed method approach in data collection, while this current study will focus mainly on quantitative method.

In Mombasa, Kenya, a study supported by NACADA, conducted by Kuyeya (2021) aimed to evaluate the efficacy of rehabilitation programs with risk of relapse in SUD recovery. The research used a mixed-method approach (quantitative and qualitative methods), with a cross-sectional design to assess 80 participants from three treatment facilities. Data collection methods included questionnaires, as well as in-depth interviews, and observations. The study identified a relapse rate of 38.9%, with non-participation in support groups being a significant factor (OR=3.25, p=0.04). The study focused on the efficacy of rehabilitation; the current study will focus on risk of relapse among addicts in rehabilitation.

Another local study in Nairobi County investigated the pivotal factor of communication and its contribution to relapse risk. Namukoa and Githae (2021) conducted a study assessing the correlation between communication of spouses and relapse risk incidences in individuals undergoing SUD treatment and recovery, and its implications for treatment. Data collection used the Advance Warning of Relapse (AWARE) tool, targeting a purposive sample of individuals admitted to rehabilitation facilities within Nairobi County. The findings revealed that 37.41% of the individuals in spousal relationships experienced a relapse. Moreover, conflicted communication with the spouses was identified as a contributing factor to increase in substance abuse, with a moderate score risk of relapse at 37.4%.

Locally, Kibet et al. (2023) carried out mixed-method research to explore how prevalent relapse risk was among individuals with AUD in Eldoret County. Using Structural Family Therapy, the study used both quantitative and qualitative methods. The quantitative component adopted a causal-comparative research design, whereas the qualitative approach was grounded in a phenomenological research framework. The target population comprised 360 individuals, including 174 participants diagnosed with SUD, 174 family members, and 12 counselors from six alcohol and drug rehabilitation centers accredited by NACADA. Stratified techniques and systematic random sampling techniques were employed to identify 38 participants with SUD and 38 family members, then purposive sampling was utilized to identify 12 relapsed clients and 4 counselors. The findings revealed that most of the individuals with SUD, 30(78.9%), were previously in residential rehabilitation before the current admission indicating they had relapsed. The current study also showed extremely high relapse rates of more than 79% were attributed to the overarching effects of the Covid-19 pandemic. The focus for the study was on both the individuals, family members and therapists, while the current study sorely focused on the individuals in rehabilitation.

METHODOLODY

The study employed descriptive research design to examine relapse risk among substance addicts. This study was conducted in Langata Sub County, a constituency of the larger Nairobi Metropolitan. Langata Sub County is an electoral division within Nairobi City County, which encompasses the southern and southwestern regions of Nairobi. It was purposively sampled because it had a good presentation of middle-class population with substance use issues. The study population was comprised of substance use individuals admitted in rehabilitation centers within Langata Sub County. The target population was justified by the concentration of substance use among emerging young adults in urban locations in Nairobi. Using a census method the study utilized the whole population of 144 substance use addicts as a sample size.

The variable of relapse risk was measured using stimulant relapse risk scale developed by Ogai et al. (2007), in Japan, and is designed for evaluation of drug treatment program. The self-rate scale has a total of 35 items with 6 subscales as listed: a. Anxiety with Intention to use substances (AI) 8 items. b. Emotionality problems (EP) 8 items, c. Compulsivity to use drugs (CD) 4 items, d. Positive expectancy and lack of control (PL) 6 items, e. Negative expectancy for the drug (NE) 4 items and f. Lie scale: Insight of own problem, 5 items. The tool is scored on a 5 – point Likert scale ranging from 1 = strongly disagree, 2 = Disagree. 3 = Neither agree nor disagree, 4 = Agree and 5 = Strongly agree. The lowest totals a person can score is 35 meaning the respondent totally disagreed with each of the statements and the highest is 175 which means the respondent strongly agreed with all the statements in the questionnaire. The score is evaluated as follows: - 1 – 35 (low score), 36 – 105 (moderate score) and 106 – 175 (High score) indicating high risk of relapse. The collected data was analyzed using descriptive statistics specifically using frequencies and percentages with SPSS.

RESULTS AND DISCUSSION

The study was set to examine the relapse risk among substance use addicts in Langata sub-county, Nairobi, Kenya. The section presents the demographic of the participants followed by the findings of the study.

Demographic Details of Participants

The study utilized descriptive statistics to analyze the demographic variables generated from the demographic profiles of the participants. The analysis was carried out on the five variables: age, level of education, religious affiliation, source of motivation and contribution to the seminary's personal growth. Thus, the social demographic characteristics were summarized and presented accordingly in Table 1.

Table 1: Social Demographics of Participants

Variables	Frequency	Percentage
Age		
18-40	108	86.4
41-64	14	11.2
Above 65	3	2.4
Gender		
Male	104	83.2
Female	21	16.8
Marital Status		
Single	82	65.6
Married	30	24
Divorced	13	10.4
Admission		
Voluntary	67	53.6
Involuntary	58	46.4

The results in Table 1, concerning the age distribution, data showed that the frequency of the respondents aged 18 - 40 years was higher at (n = 108) 86.4% as opposed to 41 - 64 years at (n = 14) 11.2% and above 65 years at (n = 3) 2.4%. Regarding classification of the Gender, the male participants were more, 104 (83.2%), followed by female, 21 (16.8%). Concerning marital status, the data showed that65.6% (n = 82) were single and 24 %, (n = 30) were married, and 10.4% (n = 13) were divorced. About admission, 53.6% (n = 67) voluntarily went to a rehabilitation centre as opposed to 46.4 (n = 58) who went there involuntarily.

Levels of Stimulant Relapse Risk among substance use addicts in Langata Sub County, Nairobi Kenya

The Descriptive Analysis was employed to examine the levels of stimulant relapse risk following the criteria for interpretation. The maximum score for the entire test was 175, while the lowest possible was 35. The interpretation of levels of stimulant relapse risk was carried out according to the proposed criteria of the developers of the instrument, and as such, it was evaluated at a low level of stimulant relapse risk (1 – 35), the moderate level (36 - 105) and the high-level (106 - 175). The results are presented in Table 2.

Table 2: Levels of Stimulant Relapse Risk

	Range	Frequency	Percentage
Low level of Stimulant Relapse Risk	1 – 35	3	2.4
Moderate level of Stimulant Relapse Risk	36 – 105	71	56.8
High level of Stimulant Relapse Risk	106 – 175	51	40.8
		125	100

Table 2 presents the levels of stimulant relapse risk among substance use addicts of Langata Sub-County, Nairobi, Kenya. Following the criteria of scoring of the creators of the scale, the data interpretation showed

that there were 3 (2.4%) respondents who scored between 1 to 55, and these are in the category of low level of stimulant relapse risk. There were 71 (56.8%) respondents who scored between 36 to 105, and these are the category of moderate level of stimulant relapse. There were 51(40.8%) respondents who scored between 106 and175, and these are the category of high level of stimulant relapse risk. According to this study, a significant proportion of respondents (n = 71) expressed a moderate level of stimulant relapse risk.

The results showed that there were 3 (2.4%) respondents who scored between 1 to 55, and these are in the category of low level of stimulant relapse risk. There were 71 (56.8%) respondents who scored between 36 to 105, and these are the category of moderate level of stimulant relapse. There were 51(40.8%) respondents who scored between 106and175, and these are the category of high level of stimulant relapse risk. According to this study, a significant proportion of respondents (n = 71) expressed a moderate level of stimulant relapse risk. The findings contradicted the findings of Sohrabpour et al. (2024), who conducted a study in Shiraz, Iran, sought to identify levels of SUD relapse with 400 participants from the treatment centers between 2021 and 2022 and findings indicated that 342 participants (85.5%) experienced previous relapses, and 172 of them (50.29%) experienced between 1 to 5 relapses. Furthermore, the findings were not in agreement with the findings of Rasmewak et al. (2020) who conducted a study in Mauritius to determine the prevalence and causation of relapse risk among male addicts over a period of six months, involving 180 male addicts admitted at a public facility and findings indicated a huge number (92%) of the respondents experienced relapse after recovery. Specifically, 29% relapsed after three months, and only 17% were abstinent between one to three years. Across the different levels, 59% were unable to maintain sobriety for more than a year.

In addition, the current findings were not supported by the findings of Kabisa et al. (2021) who conducted a study in Rwanda to examine the prevalence of relapse in substance use at the Psychotherapeutic Centre of Icyizere (IPC). Findings revealed that relapse was more prevalent among individuals with SUD with58% relapsing within two weeks to three months after treatment. High levels of relapse (90%) were found in consumption of a single drink post treatment. Equally, overall high score of relapse rate was at 59.9%, and 11.2% relapse for treatment period below 3 months. On the other hand, the findings were consistent with the findings of Kuyeya (2021) who conducted a study in Mombasa to evaluate the efficacy of rehabilitation programs with risk of relapse in SUD recovery and identified a relapse rate of 38.9%, with non-participation in support groups being a significant factor (OR=3.25, p=0.04). The findings were affirmed by the findings of Namukoa and Githae (2021) who conducted a study assessing the correlation between communication of spouses and relapse risk incidences in individuals undergoing SUD treatment and recovery, and its implications for treatment and the findings revealed that 37.41% of the individuals in spousal relationships experienced a relapse. The findings were also consistent with the findings of Kibet et al. (2023) who conducted a study to examine prevalent relapse risk was among individuals with AUD in Eldoret County and findings revealed that most of the individuals with SUD, 30(78.9%), were previously in residential rehabilitation before the current admission indicating they had relapsed.

CONCLUSION

The study concluded that majority of the participants expressed a moderate level of stimulant relapse risk. The study recommends to rehabilitation centers in Langata Sub-County to ensure follow ups of their clients' progress in their families in order to reduce the chances of relapsing. The rehabilitation centers also need to provide family counseling in order to deal with family issues that could be contributing to substance abuse and also high risk of relapsing. Also, to reduce the chances of relapse among the substance use addicts, there is a need to encourage addicts to see the importance of going through treatment without forcing them. Families also need to be encouraged to create a favorable environment that would allow substance use addicts to have lower chances of relapsing after going through treatment and counseling. Furthermore, the study recommends to future studies to incorporate inferential statistical analyses to examine factors significantly associated with relapse risk among substance users such as age, gender, family support, treatment duration, employment status, and mental health conditions that could provide deeper insights into relapse dynamics. The future research would also benefit from a mixed methods approach that includes interviews or focus group discussions to better understand the lived experiences of individuals in recovery.

REFERENCES

1. Decker, K. P., Peglow, S. L., Samples, C. R., & Cunningham, T. D. (2017). Long-term outcomes after residential substance use treatment: Relapse, morbidity, and mortality. Military medicine, 182(1-2), e1589-e1595.
2. Kabisa, E., Biracyaza, E., Habagusenga, J. D. A., & Umubyeyi, A. (2021). Determinants and prevalence of relapse among patients with substance use disorders: case of Icyizere Psychotherapeutic Centre. Substance abuse treatment, prevention, and policy, 16, 1-12.
3. Kibet, L. J., Munyua, J. K., & Ogula, P. (2023). Prevalence of relapse among clients with alcohol use disorder in Eldoret, Kenya.
4. Kuyeya, F. (2021). Effectiveness of Treatment and Rehabilitation Programs for Drug and Substance Dependence in Mombasa County, Kenya. African Journal of Alcohol and Drug Abuse (AJADA), 3-14.
5. McKay, J. R. (2021). Impact of continuing care on recovery from substance use disorder. Alcohol research: current reviews, 41(1).
6. Namukoa, S., & Githae, E. (2021). Exploring the Role of Spousal Communication as a Predictor of Relapse among Individuals in Recovery from Substance Use Disorders: Implications for Treatment Programs. African Journal of Alcohol and Drug Abuse (AJADA), 56-67.
7. Nikmanesh, Z., Baluchi, M. H., & Motlagh, A. A. P. (2017). The role of self-efficacy beliefs and social support on the prediction of addiction relapse. International Journal of High-Risk Behaviours and Addiction, 6(1).
8. Ogai, Y., Haraguchi, A., Kondo, A., Ishibashi, Y., Umeno, M., Kikumoto, H., ... & Ikeda, K. (2007). Development and validation of the Stimulant Relapse Risk Scale for drug abusers in Japan. *Drug and alcohol dependence*, *88*(2-3), 174-181.
9. Ramsewak, S., Putteeraj, M., & Somanah, J. (2020). Exploring substance use disorders and relapse in Mauritian male addicts. Heliyon, 6(8).
10. Sinha, R. (2024). Stress and substance use disorders: risk, relapse, and treatment outcomes. The Journal of Clinical Investigation, 134(16).
11. Sohrabpour M, Kamyab A, Yari A, Harsini PA, Khani Jeihooni A. (2024). The factors affecting substance abuse relapse based on the theory of planned behaviour in male addicts covered by addiction treatment centres in Southern Iran. BMC Public Health. 24(1):1265. doi: 10.1186/s12889-024-18733-1. PMID: 38720295; PMCID: PMC11080208.
12. Stanikzai, M. H., & Wahidi, M. W. (2023). Bio-psycho-social profile of people with substance use disorders treated in locally assigned treatment facilities in Kandahar, Afghanistan. Substance Abuse and Rehabilitation, 89-98.
13. Yamashita, A., Yoshioka, S. I., & Yajima, Y. (2021). Resilience and related factors as predictors of relapse risk in patients with substance use disorder: a cross-sectional study. Substance abuse treatment, prevention, and policy, 16(1), 40.