

Exploring the Role of Spousal Communication as a Predictor of Relapse among Individuals in Recovery from Substance Use Disorders: Implications for Treatment Programs

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Submitted: 23rd May 2021

Published: 30th June 2021

Abstract

Relapse among persons treated for substance use disorders (SUD) has increasingly become a problem across the world. Literature documents the role of spousal communication in relapse of individuals recovering from SUD. This study examined the association between spousal communication and relapse occurrence among patients in recovery from SUDs and the implications for treatment. The Vulnerability-Stress-Adaptation Model (VSAM) and the General Systems Theory were adopted as the theoretical frameworks informing the study. Screening for various drug use was done using the Drug Abuse Screening Test (DAST). A self-rated questionnaire was adapted from the Advance WArning of RElapse (AWARE) questionnaire was used in this correlational study to collect data that was purposefully selected from persons admitted in rehabilitation centers in Nairobi County. Results indicated that 37.41% of the participants who had spousal relationships had relapsed. Results also revealed poor communication between spouses was perceived as a cause of increased substance use. The study showed a positive statistical significance between spousal communication and relapse occurrence among inpatients with SUD ($r=.016$, $p=.002 < 0.05$). The study concluded that poor spousal communication

was a predictive factor in relapse of individuals with SUDs. The study is significant to addiction professionals and practicing counselors who should enhance effective communication as a component of family therapy and as part of the treatment interventions.

Keywords: *Relapse, Substance Use Disorder (SUD), Spousal Communication, Inpatient, Recovery, polysubstance use.*

Introduction

Relapse rates remain high throughout the world, with the United States documenting a range between 40% to 60% while China reported 50% to 80% in 2016 (Zeng, Wang, and Xie, 2016). In Africa, high relapse rates have been reported among persons with substance use disorders (SUDs), although these rates vary widely between countries. Individuals recovering from SUD are expected to maintain sobriety following treatment. However, these individuals report high relapse rates post-treatment. Relapse complicates treatment of SUDs and makes it challenging to maintain sobriety post-discharge, or even build a successful life in recovery (Kadam, Sinha, Nimkar, Matcheswalla & DeSousa, 2017).

Robust research provides varying possible predictors to relapse such as family conflict, public health, and individual health (Soni, Upadhyay & Jain, 2017). Individual factors include anxiety, depression, positive mood, age of drinking onset, crime history, unemployment, history of substance abuse, high craving rate, and low educational level (Leach, & Kranzler, 2013; Bottlender & Soyka, 2014). Social factors on the other hand include social pressure, adverse life events, marital conflict, and work stress (Hiremath et al, 2015). Other factors include death of spouse, addicted friends and partners, being

single, abundance of drugs, rejection from friends (Afkar, Rezvani, & Sigaroudi, 2017) and family emotional climate (Githae, 2016). Other psychological factors are related to relapse include unresolved conflicts (Conrad, Omulema & Chepchieng, 2016). Some studies have attributed relapse to the alcoholic background, lack of religious morals, stress, availability of cheap alcohol at cheap prices, unpleasant social environment, and peer influence (Makena, 2014).

Literature demonstrates that the family is the most fundamental site for human relationship that offers a primary structure for establishing supportive relationships (Javanmard & Garegozlo 2013). Hiremath, Neregal, Mohite and Chendake (2015) supports this proposition by associating supportive family environment with better prognosis and a successful reduction in alcohol consumption and abuse during treatment. There is evidence indicating that marital satisfaction influences relapse among recovering patients with SUD (Oprisan & Cristea, 2012).

Unfortunately however, the family may also fundamentally play a role in positively influencing addiction and other social behaviors (Tihowe, Plessis & Koen 2017). According to Afkar et al. (2017) family congestion, discrimination, divorce, death of parents, and a relative's addiction are likely triggers of excessive use and relapse in an individual with SUD. Githae, Sirera and Wasanga (2016) identified a faulty family relationship pattern known as family emotional over-involvement (EOI), which is a tendency of family over-protection and which is a significant predictor of relapse for individuals recovering from SUDs. Poor communication patterns in families tend to cause psychological distress among persons recovering from alcohol addiction contributing to their relapse (Engel, Schaefer, Stickel, Binder, Heinz, & Richter, 2016).

Other researchers have suggested that low

marital satisfaction predicts divorce, which in turn predicts relapse among persons with SUD (Kendler et al., 2017). According to Cranford (2014), there is an association between stressful marriage, marital dissolution and SUD in adults. The author demonstrated that divorce is a mediating variable in the relationship between alcohol use disorder (AUD) and marital satisfaction. Owens et al. (2013) argued that high level of marital satisfaction reflected marital quality and that this could help prevent relapse.

The Family Systems Theory supports the role of the family communication in predicting relapse. The theory posits that individuals exist within nested social systems, including societies, organizations, families, neighborhoods, and culture. These can reinforce dysfunctional behavior such as addiction through relationships of members of the group if any damage or disruption occurs to the normal functioning of a family. Most studies in this area argue that poor marital communication causes a double bind communication that has been associated with predicting relapse. In support to the Family Systems Theory, Golestan, Abdullah, Ahmad, and Anjomshoa (2010) and Parkins (2010) suggested that family factors, notably poor marital communication, family conflict, and parental substance use influenced relapse among SUD patients. Conrad, Omulema and Chepchieng (2016) also observed that dysfunctional families tended to exhibit faulty beliefs systems that could trigger alcohol dependence. From the perspective of the Vulnerability-Stress-Adaptation Model (VSAM), life encompasses adaptive processes such as stressful events and enduring vulnerabilities. Marital communication is a vulnerability event that influences persons with SUD to relapse. Substance use is viewed as an adaptive mechanism to temporarily relieve stressors resulting from a weak marital relationship that could be characterized by poor communication.

Marital communication varies across different cultures in different parts of the world. Good quality communication between individuals is the ability to symbolically and efficiently transfer the meanings and messages that one has in their mind, which makes the couple feel closer and intimate (Harris & Kumar, 2018). The authors argue that poor communication on the other hand is one where couples do not clearly articulate their needs and the messages in their minds. Poor marital communication is widely cited as a common antecedent to relapse and alcohol abuse among individuals with SUD. Zaidi (2015) investigated the relationship between co-dependency and relationship satisfaction among persons with SUD. Results indicated that problems in relational intimacy, stress, problems in communication, diffuse emotional boundaries, and poor conflict resolution impacted on interpersonal satisfaction through co-dependence. Codependence has been of major focus in the Systems Theory on studies of family psychopathology as a major contributor of relapse in substance use. Coleman and Straus (2013) identified antecedents to alcohol abuse as poor communication. Others include financial stressors and stressful marital interactions. These antecedents to alcohol abuse were thought to exacerbate substance use.

Poor communication and lack of open interactions between spouses has been identified as a risk factor for relapse in substance abuse. According to Nattala et al. (2010) faulty family communication served as an enabling behaviour to relapse in person recovering from alcohol and other substance abuse. This view was supported by Arria et al. (2013) who posited that poor communication within dysfunctional families promoted relapse. Similarly, Botvin and Griffin (2010) found that communication problems in relationships significantly facilitated addictive behaviours among persons recovering from alcohol use.

Most of the studies evaluated have been done with western populations and there is a dearth of literature on how poor communication correlates with relapse in SUD within the Kenyan context. This study, which was part of a larger research, investigated the relationship between poor spousal communication and a cognitive tendency or relapse occurrence among inpatients in selected rehabilitation centers in Nairobi City County, Kenya.

Objective: This study aimed at exploring the relationship between spousal communication and relapse occurrence of individuals recovering from AUD.

Hypothesis: There is a statistically significant relationship between marital communication and relapse occurrence among inpatients with AUD

Methods

A correlational study design was used to explore the relationship between spousal communication and relapse of a family member suffering substance use disorder (SUD) after treatment in a rehabilitation center. In order to derive a relationship between spousal communication and relapse, we screened for substance use and the quality of spousal communication, and correlated these with the warnings of relapse of the SUD patients. Each of the participants was screened for drug dependence using the Drug Abuse Screening Test (DAST). We utilized the Enrich Marital Satisfaction Scale which has a sub-scale for measuring communication problems among spouses. The scale focused on measuring people's compliance and satisfaction with aspects of marital relationship with low scores denoting poor communication; medium scores denoting medium and high scores denoting free and high quality levels of marital communication. This scale encompassed 5-point Likert type items assigned scores ranging from 1 to 5, depending on how much the respondent

agreed or disagreed to the statements provided. Some of the items on scale were scored in reverse order to enhance the reliability of the tool. The raw scores of these variables were converted into percentages.

We utilized the AWARE questionnaire designed by Gorski and Miller (1982) and Harris and Miller (2000), in measuring the warning signs of relapse occurrence among the respondents who were selected from a population of individuals with substance use disorders. It encompassed 28 items rated on 7-point Likert type scale system with 1 denoting never to 7 denoting always, which were arranged based on the order in which warning signs for relapse occurred. Lower total scores indicated lower potential of relapse while higher total scores indicated great potential for relapse. The overall total score for all the items on AWARE questionnaire were deemed as predictors of an individual' impending relapse.

Data was collected from a purposive sample of 394 participants over a six-month period. Of these, 147 were married or were in marriage equivalent spousal relationships. Results from these centers are arguably representative of the Nairobi County and the country at large because patients in these treatment centers are usually drawn from all parts of the country, and thus the study findings are generalizable to the larger population.

The test-retest reliability and internal consistency of Aware Questionnaire Scale was evaluated and acceptable ($r=.767$). Individual item-total correlations for the Marital Satisfaction scale tightly connected to the total score as shown below in Table 1.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.957	.953	27

Table 1: Reliability Statistics of Aware Questionnaire Scale

Qualitative data was collected using a structured interview schedule designed for focus groups discussions (FGDs). The interview schedule encompassed demographic questions, questions about on individual's experiences in the treatment center, relapse and relationship/marital satisfaction including spousal communication. Questionnaires for quantitative data were distributed to participants who were at their exit point at the rehabilitation centers over a six-month period of time. Association between relapse and spousal communication was assessed using Pearson's Correlational coefficients and regressions were used to give the nature and direction of the relationship between study variables.

We ensured ethical standards in data collection by informing the participants to complete an informed consent form; and allowing for voluntary participation. Respondents were not harassed for recruitment purposes, and confidentiality and anonymity were protected by restricting any use of personally identifiable information. Authorization to carry out research was granted by the Kenyatta University Graduate School board of postgraduate studies and National Commission for Science, Technology and Innovation (NACOSTI).

Results

At the end of the six-month period, 394 respondents from 15 rehabilitation centers had responded to the study questionnaire.

Of the respondents, 147 were in spousal relationships or had spousal equivalents, while the marital status of the 247 described as single, separated/divorced, widowed or they considered themselves unmarried due to other reasons. For the current study, the individuals with spousal relationships (n=147) formed the basis of our investigation of the study variables. We interviewed 84 respondents through focus group discussions (FGDs) in order to get a clearer view of spousal communication and its role in relapse for substance users in treatment. The tools of the study were administered at the exit point or discharge of the patient from the treatment centers which averaged at 3 months for the majority. All the respondents in the study had been screened and diagnosed with a drug abuse screening test (DAST) or with other substance use disorder (ICD-10), or had been dependent on a substance, which was the primary reason for admission into the treatment center. The demographic characteristics of the respondents are provided on Table 2. In addition 11.6% were female while 88.4% were male.

Table 2: Age of Participants

As indicated in Table 2, respondents between 18-25 years were 6.1%, while the majority (63%) of study participants comprised of the two main age cohorts (26-35 (42.9%); and 36-45 (29.3%) respectively). Participants between 56 and 69 were only a 2.7%.

The gender distribution of participants in this study is shown in Figure 1. The sample characteristics showed that, 11.6% were female while 88.4% (n=130) were male. The average age was 32 years (standard deviation [SD] = 10.6; range = 18-69 years). The sample included 96% with one or more SUD diagnosis. The remaining 4% had no specific diagnosis but had self-referred themselves to the treatment centers to be helped to manage the drinking problem and mitigate further deterioration into addiction.

The most frequently occurring substance use disorder was use of alcohol (76%) and use of cannabis at 46%. Of the 46% of cannabis users, majority (67%) combined this with alcohol use. Other drugs of choice included use of Khat (3%), use of sedatives (49%), and use of opioids (19%). Polysubstance users were the majority at 72%, while those who used single substances were at 28%.

The distribution of respondents based on the level of education is shown in table 3.

Table 3: Distribution of Respondents Based on Level of Education

	Frequency	Percent
High School Certificate	30	20.4
Diploma	43	29.3
First Degree	47	32.0
Masters	17	11.6
PhD	1	.7
Other	9	6.1
Total	147	100.0

As demonstrated in table 3, high school certificate constituted 20.40%; first degree holders constituted 32% while diploma holders constituted 29.3%. The respondents making up the other level of education was assumed to be low 6.1% of the participants and majority of individuals with SUD having a high school, Diploma, Masters' and PhD's education level.

Results from the AWARE gave a total of 37.41% of the participants that showed signs of impending relapse at the point of discharge from the rehabilitation center after three months of abstinence during treatment. Among these, 28 had earlier been readmitted in the rehabilitation center for inpatient treatment, hence they had relapsed after treatment. Further, patients who relapsed had showed signs of impending relapse and had attempted to discontinue treatment when they first were admitted (62%; n=34)

while a few had attempted to terminate treatment within the 3-month treatment period ($n=21$; 38%).

Based on the sum of means of responses derived from the Enrich Marital Satisfaction Scale for poor spousal communication (and based on a 5 Likert Scale) results yielded a total of 52.65% of the study participants. This meant that only 47.35% of the study participants reported a high quality of communication in their spousal relationships.

Bivariate predictors of relapse to substance use after inpatient treatment were measured using correlations to determine the relationship between spousal communication and relapse occurrence among inpatients with SUD. Table 4 shows the correlation between relapse occurrence and spousal communication.

Table 4: Correlation between Relapse Occurrence, and Spousal Communication

		Relapse Occurrence	Spousal Communication
Relapse Occurrence	Pearson Correlation	1	.016*
	Sig. (1-tailed)		.002
Spousal Communication	Pearson Correlation	.016*	1
	Sig. (1-tailed)	.002	

Results indicated that spousal communication and relapse occurrence were significantly related ($r=.016$); $p=.002 < 0.05$) (table 4). This result confirmed the alternate hypothesis that there is a statistically significant relationship between spousal communication and relapse occurrence among in-patients with SUD in rehabilitation centers in Nairobi County, Kenya. The increased risk of relapse was predicted by younger age and polysubstance use. There was an observation that the tendency for increased relapse risk was not significantly related to the level of education of the participant.

Discussion

We assessed the participant's impending relapse by utilizing the Advance WARning of RELapse (AWARE) Questionnaire as suggested by Gorski and Miller (1982; Miller & Harris, 2000). Participants reported an overall total score for all the items predicted about the participant's impending relapse using the AWARE tool. Summary and analysis of the responses made on the items in the questionnaire suggested that 37.41% had

relapsing cognitive motivation, which was a predictor that actual relapse would occur after treatment at a rehabilitation center. This relapse rate is comparable to that reported in recent studies. For example 43% relapse rate reported by Chepkwony (2013), and 39.2% reported by Githae, Sirera, Wasanga (2016). The studies are comparable because all were done within the rehabilitation centers, albeit with differences in operationalization of the definition for relapse. However, the results in the current study were relatively low compared with other studies, which have reported higher rates from 40% to 60% in the USA to 50% to 80% (Zeng, Wang, and Xie, 2016) reported for China. Making direct comparisons between relapse rates among several populations is a challenging and problematic undertaking due to differences in context, reliability of tools adapted, research methodologies undertaken, the diversity of respondents, and diversity in the form of interventions undertaken by treatment centers. One notable difference is in operationalization of the term relapse. According to Githae (2019) relapse was

defined as re-admission into an inpatient treatment center. Other definitions are based on follow-up studies (e.g. Swanepoel, Geyer, & Crafford, 2016). The current study operationalized relapse as an intrinsic motivation of relapse occurrence, which happens cognitively long before the actual relapse (or going back to full blown use) has occurred. This definition is consistent with other literature (e.g. Gorski, 1982; Melemis, 2010) that argues that relapse begins in the mind, weeks and sometime months before an individual picks up a drink or drug.

Findings in this study associated younger age with a higher likelihood of relapse, with the majority relapsers being between age 25-35 years. This resonated with findings demonstrating that the younger a patient was the more the increased risk of poor prognosis in treatment of SUD (Rollins et al, 2005; Brorson et. al, 2013; Anderson et al, 2019). However, more studies are required to elucidate the association between age at onset of substance use and treatment outcomes. The current study findings showed no statistically significant difference between age, gender and education, and relapse for relapsers and non-relapsers. These results resonate with previous studies that have found no relationship between education level and gender in relation to relapse in SUD (Kabisa et. al, 2021).

The findings of the current study supported previous literature that has shown that polysubstance use is associated with increased risk of relapse (Anderson et al, 2019). Correlational analyses demonstrated that although the majority of respondents were admitted because of alcohol abuse, having polysubstance use predicted relapse risk at significant levels ($p > 0.05$). A possible explanation for this association would be that using several substances at the same time would interfere with the predictability and outcomes of treatment and the recovery process. This finding is further supported by

Kabisa et. al, 2021. Polysubstance use may also not get addressed during inpatient treatment process because each substance has an intricate and recommended treatment approach including the period of time one takes in treatment. When each of the drugs which is a problem is not given specific attention during treatment there is a risk of fitting treatment into 'one size fits all' and hence a likelihood of leaving a patient with unmet treatment needs during treatment.

Of the rehabilitation centers involved in the study, 90% applied family therapy sessions which were given during treatment. However, there were notable differences between respondents who attended to family therapy and those that did not. The present study did not assess whether using family therapies or not the treatment environment influenced outcome predictors. However, during the FGDs we noticed that the patients rated the most successful counseling sessions as those that were attended by their close family members. This finding supported by what Githae (2016) who had alluded that family involvement during inpatient rehabilitation enhanced treatment outcomes.

We used the Enrich Marital Satisfaction Scale to measure the quality of communication among spouses. Findings of this study showed that 52.65% of the participants reported poor communication in their spousal relationships. This was a likely indication that being in a spousal relationship with an individual who had SUD had higher chances of affecting the communication pattern of the partners. These findings on spousal communication are supported by a myriad of other studies which have found out that marital communication plays a vital role in mitigating the risk for psychological distress (e.g. Harris & Kumar, 2018). Marital communication has been cited as a common antecedent to relapse among individuals with SUD. When investigating the relationship between marital satisfaction of

individuals married to a drinking partner, Zaidi (2015) found out that substance use affected intimacy, increased stress, negatively affected communication, and increased conflict between the married couple. Coleman and Straus (2013) identified one of the antecedents to substance abuse as poor communication. This is significant in informing interventions which should consider evaluating and improving spousal communication.

As hypothesized, there was significant support that spousal communication was positively correlated to relapse occurrence ($p=0.002<0.05$). Hence, the communication among spouses was a predictor of relapse occurrence among spouses with substance use disorder/s. When one person within the marriage relationship is affected by substance use disorder, the impact affects the quality of the marital bond. While the causal connections between substance use and marital communication is complex and only partially understood, available evidence demonstrates that the two problems exacerbate each other most of the time (Rodriguez, Neighbor, & Knee, 2014). This is likely to form a detrimental cycle whereby substance use is exacerbated while the quality of the relationship deteriorates. This was an important finding which should inform current practice and interventions undertaken by treatment centers during family therapy sessions.

Conclusions

This study makes an important contribution to a field that has tended to focus on patients' mental preparedness against relapse. Relapse was operationalized to make the distinction between relapse and risk of relapse emanating from impending feelings of going back to substance use after treatment. The study made a major finding that relapsing has a cognitive motivation which is detectable before the inpatient with

SUD can be discharged from treatment and before the actual relapse occurs. In resonance with other studies, this study has associated younger age with a higher likelihood of occurrence, and which is also exacerbated by polysubstance use with a 90% risk of relapse. The study was instrumental in demonstrating that spousal communication among spouses was a predictor of relapse occurrence among spouses married to an individual with a substance use disorder. The findings greatly contribute to future interventions in family therapies offered to inpatients in the treatment centers. Interventions should consider enhancing marital communication between spouses of inpatients in order to strengthen their relationships and hence reduce the risk of relapse.

Limitations

However, some study limitations should also be considered. Our measure of relapse was based on self-reports. Although previous research has reported good reliability of self-reports, there remains some debate about the accuracy of this information. Furthermore, the definition of relapse used in this study does not take into account whether or not the individual will actually go back to using the substance of choice or not.

Recommendations for Future Studies

A more accurate measurement of relapse could include a follow-up study to find out whether those at the risk of relapse did actually relapse by going back to heavy drinking post-discharge. Further studies would also be needed to elucidate whether or not the age of onset influenced the relapse risk of the individual with SUD. Studies have shown that the substance dependence is positively correlated with the age of onset but we found no study that has linked onset age with the risk of relapse at discharge. It would also interest researchers to find out whether comorbidities do influence the impending feeling of relapse for individuals

with substance use disorders. Identifying the treatment needs of patients following inpatient SUD treatment may contribute to prediction of whether one is likely to relapse cognitively before going into a full blown return to substance use for individuals in alcohol use treatment. Further research is needed to illuminate the treatment-related factors that contribute to reduced risk of relapse after inpatient SUD treatment.

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