ORIGINAL ARITICLE

Family Relationship Dimensions and Repeated Relapse from Substance Use Disorder among Patients at Mental Health Service Centers in Addis Ababa

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Abstract

Substance abuse has become one of the most pressing mental health issues. The dramatic increase in drug production and trafficking in recent years has caused a growing number of drug abusers. The purpose of this study was to assess family relationship dimensions and repeated relapse due to substance induced disorder among patients who use substance in Addis Ababa mental health service centers. Questionnaire and key informant interview were used to collect data from participants. Data were collected from seventy patients with substance induced disorder, attending treatment at Ammanuael Specialized Mental Health Hospital, Yeka-kotebe General Mental Health Hospital, and Zewuditu Memorial Hospital. The results indicated high degree of relapse of substance triggered disorder due to their consumption of Khat, Alcohol, and Tobacco. Multiple linear regression results indicated that family relationship dimensions (hostility, emotion over-involvement and perceived criticism) significantly predicted 50.8 % of the variance in repeated relapse of substance related disorder (R2= .508, F = (12, 851) = 3. 565, p< .000. Hostility (β = .352, p= 0.02) and emotional over involvement (β =.406, p= 0.01) were significant predictors of repeated relapse of substance use prompted disorders. This implies that hostility and emotional over involvement are positively associated to relapse of substance use generated disorders. Therefore, psychiatrists, counselors and hospital managers should give due emphasis to the role of family relationship so as to design pertinent intervention strategies.

Keywords: Family relationship, Relapse, Substance use disorder

Background

The Diagnostic and Statistical Manual of Mental Disorders Version Five (DSM-V, 2013) states that the substance use generated disorder is a cognitive, behavioral, and psychological symptoms associated with continued use of a substance. According to this manual, the substance use disorder occurs in a broad range of severity level, from mild to severe. About 11 different diagnostic criteria are listed in the DSM-V to conduct substance abuse triggered disorder diagnosis (DSM-V, 2013). Some of the criteria include taking the substance in larger amounts or for longer period, wanting to cut down or stop using substance but not managing; spending a lot of time on using, desiring and urging to use the substance; continuing to use even when it causes problems in relationships; giving up important social, occupational, or recreational activities because of substance abuse, and using substances again and again (DSM-V, 2013).

According to DSM-5, 2013, a mild substance use disorder is suggested by the presence of two to three of the eleven symptoms. A moderate substance use disorder occurs when a person shows four to five symptoms, and a severe substance use disorder is represented by the manifestation of six or more symptoms (DSM-5, 2013). Substance abuse disorder is a mental disorder in which the biological, psychological and social factors are playing

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major roles (Tol *et al.*, 2011). However, this study focuses on family relationship as one of the social factors that determine relapse magnitude of substance abuse disorder. For instance, a supportive family is considered as the strongest source of identity and social support among all contextual relationships (Beattie, 2001)

As to Saatcioglu *et al.* (2006), the family context in which an alcoholic person lives might be the main contributing factor to relapse. The social context in which the substance user lives is very significant to whether they remain abstinent from substance using or relapse after treatment (Copello, *et al.*, 2005; Saatcioglu *et al.*, 2006). One of the predictive aspects of relapse is the emotional state of the family (emotional expression). It is the degree of hostility, critics and emotional over involvement attitude of families on a substance user member. High emotional expression is identified in the tone and content of family members' communication (Hooley, 2007). High emotional expression has been associated with relapse in a variety of psychopathologies (Hooley, 2007). Families with high emotional expression are more likely to induce relapse in the recovering patient, while low family emotional expression buffers the re-occurrence of substance use disorder (Hohman & Butt, 2001). According to Rotunda and O'Farrell (1998), the three family attitudes (hostility, criticism, and emotional over-involvement) are associated with relapse of substance use disorder. Hostile attitude occurs when family members blame the individual over the substance use and the negative effect it causes. Criticism occurs when family members make negative comments toward the person with substance use disorder and emotional over involvement prevail if family members become over-engaged in the patient's condition (Renshaw, *et al.*, 2010; Simmons *et al.*, 2008; Hooley, 2007).

In Ethiopia, substance abuse is a widespread problem across the country, and it is creating physical, psychological, social and economical problems. Based on the researchers' personal observation in the mental health centers at Addis Ababa, considerable number of patients were suffering from a relapse of substance use disorder. Many local studies focus on prevalence and associated factors of mental disorders, ignoring re-occurrences or relapses. The studies were mainly conducted in Butajira area of Ethiopia (e.g., Kebede et al., 2000, Kebede et al., 2003, Awas et al., 1999). Of course, there are a few local studies on relapse of mental disorder among psychiatric patients. For instance, Ayano & Duko (2017) investigated relapse among patients with schizophrenia and bipolar disorder at the Amanuel Mental Specialized Hospital. However, to the best knowledge of the researchers, there are limited studies that specifically focus on the role of family relationship on relapse of substance use disorder at mental health centers in Addis Ababa.

Moreover, family has a vital role for maintaining physical and psychological conditions of a person in Ethiopia. However, little attention has been given to the role of family relationship on mental health disorders, including substance use disorder. Besides, substance use has become a policy issue worldwide; it is time to produce empirical evidence on relapse of substance use disorders in Ethiopia. Bearing these in mind, this study aims to investigate the role of family relationship on relapse of substance use disorder. The following research questions are used to guide this study.

- What is the magnitude of substance use disorder relapse among patients?
- How family relationship factors (hostility, emotional over-involvement and perceived criticism) significantly predict relapse of substance use disorder?
- What are the reasons of patients for relapse of substance use disorder?
- Is there a significant difference in relapse of substance use disorder between male and female patients?

Method

Research Design

This study follows a mixed method research approach with concurrent parallel design where qualitative and quantitative data were collected simultaneously. This design allows combining elements of quantitative and qualitative research approaches (Johnson, 2007). The use of mixed method research also allows compensating weaknesses of one single approach with the strengths of the other one (Creswell & Clark, 2011).

Samples and sampling technique

In recent times, Ammanuael Specialized Mental Health Hospital, Yeka-kotebe General Mental Health Hospital and Zewuditu Memorial Hospital give Psychotherapeutic treatment service to psychiatric patients. According to the Administration Office of these hospitals, the total number of patients with substance abuse disorder was seventy. There were 33 patients (Male =23, Female =10) with substance use disorder in Ammanuael Specialized Mental Health Hospital. Yeka-kotebe General Mental Health Hospital had 17 (Male=13, Female =4) patients with substance use disorder. Zewuditu Memorial Hospital had 20 (Male= 15, Female =5) substance use disorder patients. Given the small size in the number of patients with substance use disorder, all of them from the three hospitals were included to participate in the study. Interview was conducted with seven (five male and two female) attendants of substance use disorder. The interviewees were selected through purposive sampling.

Inclusion and exclusion criteria

Those patients who had a history of two or more admissions due to substance (Alcohol, Khat and Tobacco) were included in the study. However, substance users who were admitted in the first time and those who had co-morbidity of mental disorders were excluded in the study. Co-morbidity of mental disorders was determined by inspection of their medical history.

Instruments

Data were collected through self report questionnaires and structured interviews. The Family Attitude Scale developed by Kavanagh et al (1997) was adapted to measure the hostility, criticism and over-involvement dimensions of family relationship. The scale consists of 30 items, each dimension having 10 items. A 10 items Drug Abuse Screening Test was used to measure repeated relapse of substance use disorder. After thorough review of the literature, seven semi-structured interview items were prepared by the researchers. Pilot testing was conducted by taking 10 substance users who were re-admitted at University of Gondar Specialized Hospital. The pilot study was conducted to test the reliability and content validity of the instruments. The content validity was checked by two clinical psychologists from University of Gondar. The results of the pretest indicated acceptable alpha value (>.70).

Data Analysis

Data were analyzed using descriptive statistics such as mean, standard deviation, independent samples t-test and multiple regressions (Jackson, 1999). The mean was used to

determine the extent of substance use disorder relapse. A score which is greater than the scale's mean shows high degree whereas a score which is below the scale's mean indicates low degree. Multiple linear regression (Hoyle, Harris, Judd, 2002) was used to determine prediction of the independent variables (hostility, criticism and over- involvement) on the DV (relapse of substance use disorder). Independent samples t-test was computed to compare relapse of substance use disorder between male and female patients. The qualitative data were analyzed by narrating interviewees' accounts of through words.

Ethical consideration

Ethical permission letter was obtained from Ethical Review from Psychology Department at University of Gondar. Besides, informed consent was obtained and the participants were assured of confidentiality and anonymity of their responses.

Results

Demographic information

Demographic information of participants which are pertinent to the purpose of the study were analyzed and presented in the following Table.

Table 1. Demographic characteristics of participants

Variable	Category	Frequency	percent
Gender	Male	52	74.3
	Female	18	25.7
	Total	70	100
Age	20-39	35	50
	40-59	20	28.57
	60 and above	15	21.43
	Total	70	100
Marital status	Married	30	42.85
	Divorced	28	40
	Single	12	17.15

As Table 1 shows, 74.3 % of patients with substance disorder were males whereas 25.7% were females. Coming to age, half (50%) of the patients were in an age ranging from 20 years to 39 years. About 28.57 % of the patients' age ranges from 40 to 59 years. There were also about 21.43 %   of patients whose age was 60 years and above.

Finally, Table 1 shows that 40.85% of patients were married while 40 % of the patients were divorced. The remaining 17.15 % of the patients were single.

Magnitude of repeated relapse of substance use disorder

One objective of the present study was to examine the magnitude of repeated relapse of substance use disorder. Table 2 below presents the means and standard deviations on repeated relapse of substance use disorder.

Table 2. Magnitude of repeated relapse of substance use disorder (N=70)

Variable	Mean	Standard Deviation
Relapse of substance use disorder	21.47	2.69

The results in Table 2 indicated that the mean score of relapses was found to be 21.47, with a standard deviation of 2.69. Taking the scale mean value of 20 as a cut-off value, participants experienced high degree of relapse of substance use disorder.

Gender difference on repeated relapse of substance use disorder

Mean level comparison was conducted using independent sample t-tests to examine if there was significant difference in repeated relapse of substance use disorder between male and female participants.

Table 3. Independent samples t-tests comparing repeated relapse of substance use problems among male and female participants

Groups	Mean	SD	t	P
Male	21.55	2.58	.453	.679
Female	21.22	3.04		

The independent samples t-test indicated no significant difference in repeated relapse of substance use disorder between male and female participants (t=.453, p>.05). Though the difference is statistically significant, the mean relapse score of males (mean=21.55, SD=2.58) was slightly greater than their female counterparts (mean=21.22, SD=3.04).

Family relationship factors in predicting relapse of substance use disorder

One of the objectives of this study was to check if family relationship factors significantly predict relapse of substance use disorder. Preliminary analysis was conducted to check assumptions of multiple regressions (homoscedasticity, multi-collinearity absence of out-liers, linearity and normality) through inspection of scatter plots.

Table 4. Multiple regression model predicting relapse of substance use disorder (N=70)

Variables	B	ß	P
Hostility .	181	352	.002
Emotional over involvement	.149	.406	.001
Criticism	.147	.134	.175
F= 3.565; R2 = .508, p < .05			

As depicted in Table 4, 50.8 % of the variance in relapse of substance use disorder was accounted for by family relationship factors (hostility, emotional over-involvement and perceived criticism) and the model was significant (R2=.508, F = (12, 851) = 3 565, p< .05). The standardized regression coefficients unveiled positive beta weights, indicating that relapse increases as hostility, criticism and emotional over involvement increase. Here, emotional over involvement (β = .406, p< .05) was the strongest predictor of relapse which was fol-

lowed by hostility (β = .352, p< .05).

In line with the quantitative results, the qualitative results revealed family interactions as contributing factors for relapse of substance use disorder. Poor relationship quality between the wife and the husband was mentioned to be the most important contributing factors by all of the interviewees. In other words, loose intimacy between couples was found to be the major contributing factor for repeated relapse of substance use disorder. As all of the interviewees indicated, the loose attachment between couples contributes for repeated relapse of drinking alcohol and smoking behavior. One female interviewee expressed her experiences as follows:

> *Husbands involve in over-alcoholic and smoking behavior. It is because of poor relationship with their wife and inability to solve their issues together. If his wife gives little or no attention, the husband would drink and smoke a lot.*

The above narration implies that wife–husband relationship is vital for sustainability and stability of the family. If the intimacy in the family is collapsed, there would be family instability which in turn leads to substance use. Supporting this, another interviewee describes:

> *The relationship I had with my husband was unfriendly because I and my husband often quarrel and disagree over many issues. He did not want to see me and, thereby, I was forced to leave home. If I decide to live with my husband, we could not live in peace.*

This indicates that the wife and the husband relationships have its own role for repeated relapse of substance abuse generated disorder. As couples push each other and create a gap between them, poor relationship developed eventually leading the couples to involve in substance use. Similarly, one male participant witnessed as follows:

> *The causes for repeated relapse of substance use may be the lack of strong relationship between couples. If couples do not support each other, the probability to engage in substance use would be high. I believe that loose wife-husband interaction has its own impact on the repeated relapse of substance use disorder.*

Similarly, another interviewee (male) stated that the family conflict is one of the factors for relapse of substance abuse and the said person described his views as follows:

> *Family conflict is one of the major causes for re-occurrence of substance use disorder. Most substance users experience conflict with their families and if there is no smooth and intimate relationship among families, relapse of substance use problem may occur.*

Overall, the qualitative results revealed that poor family relationship leads to repeated relapse of substance use disorder.

Discussion

One of the objectives of the present study was to examine the magnitude of repeated relapse of substance use disorder among substance abusers. The results of the present study indicated high degree of repeated relapse of substance use disorder among patients in the three hospitals. Similarly, a clinical sample in USA showed that 51% of patients with substance use disorder experiences relapse (Dawson et al., 2007). A study on Psy-

chotic relapse and associated factors among patients attending health services in South-west Ethiopia also indicated high magnitude of relapse among patients with psychotic disorder (Fikreyesus *et al.*, 2016).

The present study also shows that males with substance use disorder demonstrated a bit higher relapse as compared to females. This is consistent with previous studies. For instance, a study on substance use and associated factors among university students in Ethiopia) indicated that being male had strong association with substance abuse (Tesfaye *et al.*, 2014). A similar study in Debre-Markos Poly Technique College unveiled that the degree of substance abuse in males were three and a half times higher than in females (Aklog *et al.*, 2013).

Most importantly, the present study revealed that family relationship factors such as hostility, criticism and over-involvement significantly predicted relapse of substance use disorder. As the findings of the present study indicated, 50.8 % of the variance in relapse of substance use disorder was explained by family relationship factors such as criticism, over-involvement and emotional expression. In line with this, Richardson (2001) stated that the presence of family members in the social network of addicts may prolong drug abstinence.

In addition, a study on the role of family expressed emotion and perceived social support in predicting addiction relapse also showed a positive relationship between family expressed emotions and the frequency of relapse (Atadokht *et al.*, 2015). Another study by False-Stewart et al (2001) showed a positive and significant relationship between relapse of substance use driven disorder and criticism by family.

Conclusion

Based on the results of the study, it is concluded that there was a high degree of substance induced disorder relapse among patients in Ammanuel Specialized Mental Health Hospital, Yeka-Kotebe General Mental Health Hospital and Zewuditu Memorial Hospital. Male patients demonstrated a bit higher relapse rate as compared to females. Family relationship factors significantly contributed to the relapse of substance use disorder. In other words, hostility, emotional over- involvement and perceived criticism significantly explained relapse of substance use disorder. Most importantly, hostility and emotional over-involvement were significant predictors of relapse. As hostility and emotional over-involvement increase, repeated relapse of substance use disorder also increases.

Recommendations

Based on the findings of this study, the following recommendations are suggested:

1. The Administrators of Amanuel Specialized Mental Health Hospital, Yeka- Kotebe General Mental Health Hospital and Zewuditu Memorial Hospital should give due attention to families of patients with substance use disorder and arrange family therapy.
2. Mental health policy makers should emphasize and consider family relationship factors in formulating guidelines and principles.
3. Ministry of Health should arrange and offer awareness raising training to families of persons with substance use disorder.

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