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Correlation of Factors Attributing to Patients with Substance Dependence and Demographic Characteristics in Eldoret town Municipality, Uasin-Gishu County, Kenya

Edwin Simon Peter Nyaura[1], Jasper Edward Nyaura[2]

[1] Department of Psychiatry, School of Medicine, Maseno University, P.O.Box Private Bag, Maseno (40105), Kenya.

[2] Department of Peace Security & Social Studies, Faculty of Arts and Social Sciences, Egerton University, P.O.Box 536 (20115), Njoro-Nakuru County, Kenya.

Abstract: ***Increase in dependence on substance abuse has been found to be on the increase in patients in the study area. Authors and scholars have for instance pointed the health implications and the socio-economic factors attributing to this increased intake of substance abuse. This paper has further sought to elucidate factors attributing to patients with substance dependence and demographic characteristics in Eldoret Municipality in Uasin-Gishu County. The paper found that there is a correlation between age and availability of the substance abuse, gender and level of substance dependence and additionally, level of income.***

Keywords: Dependence, Substance abuse, Correlation, Demographic characteristics**.**

1. Introduction

According to the United Nations (2014) report on drugs, it is estimated that some 5.2 per cent (range: 3.5-7.0 per cent) of the world population aged 15-64 had used an illicit drug mainly a substance belonging to the cannabis, opiates, cocaine or amphetamine-type stimulant (ATS) group, at least once in the previous year. According to Sadock and Sadock (2007) substance dependence and substance abuse with descriptions of the clinical phenomena is associated with the use of 11 designated classes of pharmacological agents: alcohol; amphetamines or similarly acting agents; caffeine; cannabis; cocaine; hallucinogens; inhalants; nicotine; opioids; phencyclidine (PCP) or similar agents; and a group that includes sedatives, hypnotics, and anxiolytics. Further researches point out that substance abuse is prevalent among the Kenyan youth. Acuda (1986) points out that the psychoactive substances that were commonly abused in Kenya were alcohol and khat, but over the years there have been a rise in use and abuse of a variety of a variety of other substances like tobacco, cannabis-sativa, and volatile substances. He further stipulates that the practice was more widespread in urban and peri-urban areas than in rural areas. Regarding gender, more boys than girls were involved in the behaviour. The author concluded that the use of psychoactive substances among the youth was growing and suggested more research towards preventive education on substance abuse among other factors.

Accordingly, estimates have shown that up to 263,000 people die annually due to the consumption of illegal drugs (World Drug Report, 2011), while alcohol is estimated to cause 1.8 million fatalities every year. These fatalities can be linked to the behaviour of persons under the influence of alcohol or to the long and short-term effects of alcohol consumption on human health. Moreover, where health is concerned, it is important to point that alcohol abuse, tobacco use, poor diets and lack of exercise, are the four main causes of non-communicable disease (NCD's) risk factors. Non-communicable diseases such as cancer, diabetes, chronic respiratory diseases and cardiovascular diseases are the leading causes of death in the world today (SCAD, 2012).

Further studies point out that the most common substances abused include cannabis and amphetamines by those who were substance dependent. A study by Freeman *et al.,* (2004) focused on substances abuse, in-patients with schizophrenia and thereby pointed out that 40% use cannabis, 8% amphetamine, while 20% use more than one substance. Moreover, studies conducted in American account that there is rise in rates for cocaine use as compared to that of Kenya thus the resulting to schizophrenia, anxiety, mood disorders, anti-social personality disorder, and substance abuse disorder which were prevalent among the ages 15-54 years (Goldenberg and Fierman, 1995).

Across the globe, alcohol and more so, drug abuse continues to be a major challenge to both those living in the rural and urban areas. Indeed, the use of alcohol and drugs continues to emerge as a strategy for most young people to cope with their prevailing problems such as unemployment, neglect, violence, sexual abuse and poor academic performance (NACADA, 2012). Accordingly, in Kenya today substance abuse is a major problems which continues to have huge socio-economic impact on the populate (Muchemi, 2013). Moreover, substance dependence among the poor is on the increase in the study area. Most studies, for instances have pointed out the impact on health of the well-being and the socio-economic statues. This paper however, sought to identify factors attributing to patients with substance dependence in relation to demographic characteristics in Eldoret Municipality in Uasin-Gishu County, Kenya.

2. Methodology (Methods & Materials)

2.1 Site of Study

The study was carried out in Eldoret Town municipality, Uasin-Gishu County, Kenya. The decision to carry out the research in the municipality was due to the fact that it is a cosmopolitan area and thus a high population. The study area also has an influx of persons who are substance dependent in the North Rift Region in Kenya.

2.2 Participants

Respondents for this study were 135 from both genders (Men and Women). To participate, the respondents had to be already substance dependent. This would enhance the reliability of information given in the study as stipulated by their experience and level of involvement.

2.3 Population and Sample

The population comprised the male and female respondents residing in Uasin-Gishu County and who were substance dependent. The identification of the research subjects/respondents was purposively done using simple random sampling. The study purposively involved respondents engaging in substance abuse.

2.4 Research Design

Research design that was appropriate for the study was correlation design. The rationale of using correlation design was to assess the degree of relationship that exists between two or more variables.

2.5 Instruments

The study used interview method for data collection. The instrument was guided by the study objective. The interview schedule contained both open-ended and close-ended questions which allowed appropriate flexibility of the respondent as well as restricting them to relevant issues. Questions related to substance dependence were mostly open ended and the consistence of the responses of the interviewees was ensured through cross checking questions.

2.6 Techniques of Data Analysis

This study utilized the statistical package for social sciences (SPSS Version 16.0) in the organization and analysis of quantitative data from closed-ended questions. The data was presented in form of frequency and cross-tabulation tables. The Inferential statistics utilized the Chi-square technique to test associations that exist between various variables.

2.7 Ethical Considerations

During the research process there were research ethic was observed. The actual participants were offered privacy during the interview. The research process was voluntary in nature and the right to withdraw partially or completely from the research process was granted to the participants.

3. Results

3.1 The Type of Substance Depended on by Respondents

In relation to the type of substance depended on by the respondents, it was established that more than fifty percent (51.1) % depended on alcohol, slightly above a quarter (25.9%) depended on cannabis while below twenty percent (14.8%) depended on Khat/*Miraa*. Moreover, it was respondents depended on some kind on amphetamine thus accounted for 5.2%. Those relying on sedatives were less than five percent (3%) as identified in the study. Accordingly, this study therefore points out that most of the respondents were engaging in alcohol abuse thus this may be attributed to a majority of persons consuming illegal or unregulated alcohol as shown in **Table 1**.

Table 1: Type of substance depended on by the Respondents

Type of substance depended on	N	%
Alcohol	69	51.1
Cannabis	35	25.9
Khat/Miraa	20	14.8
Amphetamines (Increased performance)	7	5.2
Sedatives (Increased calmness)	4	3.0
Total	**135**	**100**

N=Frequency; %= Percentage of respondents

3.2 Age of Respondents and Availability of the Substance

In relation to the age of the respondents, it was established that 7.4% were aged 17 years and below, 22.2% were between 18 and 25 years, 26.7% of the respondents were between 27 and 30 years while 43.7% were more than 31 years. As a result, it was established that majority of the respondents were between the ages of above 31 years. However, it was also established that 7.4% of the respondents were below 17 years. This implies that the age of the respondents' increases with the level of involvement/intake in substance abuse as shown in **Table 2** below. In relation to Chi-square statistic in **Table 3**, it is clear that the p value (0.000) is less than 0.05 ($p<0.05$), so the null hypothesis is rejected. This therefore implies that there is a significant relationship between age of the respondents and the availability of substance abuse thus increased level of dependence. Moreover, this states that with increase in age of the respondents then respondents can access and become substance dependent. This may be attributed to factors such as parental control and peer involvement at high school level. Accordingly, other factors may be university experience and influence at work-place.

Table 2: Age of Substance-dependence of Respondents

Age of the Respondents	N	%
<17 years	10	7.4
18-25 years	30	22.2
27-30 years	36	26.7
31> years	59	43.7
Total	**135**	**100.0**

N=Frequency; %= Percentage of respondents

Table 3: A Cross-tabulation between Age and Availability of Substance Abuse

			Availability of substance abuse			Total
			Sometimes	Frequently	Almost always	
Age of the Respondents	<17 years	Count	6	4	None	10
		%	60.0%	40.0%	None	100.0%
	18-25 years	Count	5	15	10	30
		%	16.7%	50.0%	33.3%	100.0%
	25-30 years	Count	4	5	27	36
		%	11.1%	13.9%	75.0%	100.0%
	Above 31>	Count	10	20	29	59
		%	16.9%	33.9%	49.2%	100.0%

X^2=63.951; df =6; p value= 0.000; significance level=0.05

3.3 Gender and Level of Dependence on the Substance Abuse

Table 4: A Cross-tabulation between Gender and Level of Substance dependence

			Gender of Respondents		Total
			Female	Male	
Level substance dependence	Occasionally	Number of Respondents	30	20	50
		%	60.0%	40.0%	100.0%
	Frequently	Number of Respondents	8	22	30
		%	26.7%	73.3%	100.0%
	Almost always	Number of Respondents	5	50	55
		%	9.0%	91.0%	100.0%
Total		Number of Respondents	43	92	135
		% of Total	31.9%	68.1 %	100.0%

X^2=47.433; df=3; p value= 0.000; significance level=0.05

Accordingly, the study findings indicate that 68.1% of the respondents were male while 31.9% were female. This implies that there were more male than female respondents because it can be said that male are more increasingly involved in the intake of substance abuse and are likely to become dependent. Therefore, cross-tabulation findings indicate that the males are more likely to engage in the substance abuse as compared to the females. In relation to Chi-square statistic in **Table 4**, it is clear that the p value (0.000) is less than 0.05 (p<0.05), so the null hypothesis is rejected. This therefore implies that there is an association between gender and level of substance dependence. A close scrutiny of the findings indicates that the male respondents were more likely to always become substance dependent as compared to the females who were occasionally dependent.

3.4 Gender of Dependence on Substance Abuse and Level of Income

In relation, to income level of the respondents it was established that a majority (67.4%) of the male respondents believed that it was true that income had a role in the respondents' dependence on substance abuse. Moreover, female respondents (44.2%) felt that it was more false than true that income has influence on the level of dependence on substance abuse as shown in **Table 5**. As a result, it was established that majority of the respondents were male. Accordingly, income implied the fact that due to the low socio-economic status of the respondents, then this would mean that persons would engage in substance abuse, for example due to stress and depression. Furthermore, it would also mean that if one does not have access to resources then this would increase the chances of engaging in illegal substances and vice-versa. However, the female respondents felt that there was no influence of income on the level of dependence on substance abuse.

In relation to Chi-square statistic in **Table 5**, it is clear that the p value (0.000) is less than 0.05 (p<0.05), so the null hypothesis is rejected. Therefore, this is a clear indication that implies that there is a relationship between gender and income level when respondents are substance dependent. A close scrutiny of the findings indicates that there is increase in male respondents who view that income influences whether one is likely to become dependent on substances as compared to the female respondents.

Table 5: A Cross-tabulation between Gender and level of Income

			Level of income					Total
			False	More false than true	In between	More true than false	True	
Gender	Male	N	None	7	None	23	62	92
		%	None	7.6%	None	25.0%	67.4%	100.0%
	Female	N	12	19	2	3	7	43
		%	27.9%	44.2%	4.7%	6.9%	16.3%	100.0%
Total		N	7	10	2	42	74	135

X^2=12.574; df=4; p value= 0.000; significance level=0.05

4. Conclusion

The study established that a significant number of the respondents were more dependent of alcohol as compared to other drug substances. The results of the hypotheses testing indicated that there is a significant relationship between age of the respondents and the availability of substance abuse thus increased level of substance dependence. It was further established that there is an association between gender and level of substance dependence. Again, it was found that there is a relationship between gender and level of income when respondents are substance dependent. The study therefore concludes that availability of the substance abuse; gender, level of dependence and level of income play a role on the substance dependence of the respondents.

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Author Profile

Dr. Edwin Simon Peter Nyaura has attained MB,ChB*(Mak)*, MMmed*(Psych)(Nrb)*, MPH*(Cardiff)*. He is currently the Chairman in the Department of Psychiatry in Maseno University, School of Medicine in Kenya. He was a senior medical specialist at the Moi Teaching & Referral Hospital in the Department of Mental Health and Rehabilitation. He has extensive experience in rehabilitative health and community health as he has worked with many renowned hospitals in the same capacity such as the Kenyatta National Hospital in Nairobi and Eldoret Hospital in Uasin-Gishu County. He is currently a Consultant Psychiatrist at the Jaramogi Oginga Odinga Hospital in Kisumu County in Kenya.

Jasper Edward Nyaura received the B.A. in Social Studies, Sociology option from Moi University in 2010 and currently pursuing and completing his M.A. Sociology in Project Management and Community Development from Egerton University, Kenya. He is currently a Diploma lecturer and tutor among the leading institutions in Kenya. His specialties are Community Development, Social Work and Criminology.