Relationship between Family Flexibility and Substance Use Disorders among the Youth in Selected Rehabilitation Centres in Nairobi County, Kenya

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***Abstract*: This study investigated family dynamics and substance use disorders among the youth in selected rehabilitation centers in Nairobi County, Kenya. The study was guided by the family structure theory. The research design was mixed method embedded research design. Using Yamane (1967) formula, a sample of 172 clients was obtained and selected randomly to take part in quantitative study. Another 12 clients who had stayed in rehabilitation centers for the longest time were purposively selected in order to provide qualitative data. Similarly, 10 parents were conveniently selected in order to provide qualitative data. Therefore the total sample size comprised of 196 respondents. Quantitative data was collected using FACES-IV, AUDIT-10, and DAST-10 questionnaires while qualitative data was collected using interview guides. Cronbach Alpha technique was run to test the reliability of FACES-IV, AUDIT-10, and DAST-10. FACES-IV scale was found to have a reliability coefficient of .723, AUDIT-10 had reliability of .861while DAST-10 scale had a reliability coefficient of .812. Quantitative Data analysis was done using descriptive statistics and inferential statistics while qualitative data was analysed thematically backed by narratives from respondents. The study had the following findings: Most families recorded unhealthy flexibility with majority of respondents coming from families which had chaotic family flexibility (Mean= 24. 4015; SD= 10.001) followed by Rigid flexibility (Mean= 17.4167; SD= 5.1244), there was a weak negative and significant correlation between balanced family flexibility and drug use disorder (r=-0.299; P= 0.001).**

I. BACKGROUND

The problem of substance use disorders among young people has been on the rise globally and locally. This problem has been of great concern worldwide and different countries are using different means to address this vice. Chesang (2015) defined substance use disorders as a mental condition which results from the use of one or more substances that could lead to clinical impairment or distress. Globally, there are estimated 271 million people who abuse substances (United Nations Office of Drugs and Crime, 2019). Out of these 271 million people, 13 percent suffer from Substance use disorders (United Nations Office of Drugs and Crime, 2019). World Health Organization (WHO), 2019) report on substance use disorders added that about 5.3 percent of all the deaths globally in 2018 were due to substance use disorders.

Another report on substance use disorders among the youths by World Drug Report (2018) said that some 200 million people, or 5% of the world's population aged 15-64, had used drugs at least once in the last 12 months. This is 15 million higher than 2017 estimates. Lastly, the report stated that this increase has been attributed to greater availability of drugs and higher demand for treatment in the treatment centers.

In support of WHO and United Nations Office of Drugs and Crime Substance Abuse reports, Substance Abuse and Mental Health Services Administration (SAMHSA), 2017) reported that approximately 9% of the total population of young people aged 18 years and above in the United States are users of illicit drugs. UNODC (2018) report added that in United Kingdom, about six million people are estimated to drink above the recommended daily guidelines with almost two million of youths drinking at harmful levels.

National Treatment Agency (2014) also conducted survey of 100,000 young people from European countries such as: Austria, Belarus, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, the Faroe Islands, Finland, France, Germany, Greece, Greenland, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia, the Slovak Republic, Slovenia, Sweden, Switzerland and Ukraine to understand the behaviours, knowledge and beliefs concerning cigarettes, alcohol, solvents and illegal drugs by young people. The study findings showed that there were high rates of substance use disorder amongst youths across all countries. These results agreed with the findings of other global reports on substance use disorders.

Africa, just like the rest of the world continues to face many substance use related complications (Drug Use Report, 2014). However, this problem is more prevalent in many countries in West and North Africa (World Drug Report, 2020). According to this report, Eastern Africa had a prevalence use of 1.0 percent, Southern Africa had a

prevalence of 0.5 percent and Central Africa had a prevalence of 1.8 percent.

This problem of substance use disorders in Africa has continued to increase as projected by Charlson and Whiteford (2014) study. The study projected that all Sub-Saharan African countries would experience an increase in Substance Use Disorders by around 125 percent in the absence of management strategies. However, this increase would differ across regions, with the Eastpart of Africa having the highest increase at about 139 percent followed by West Africa (about129 percent) in substance use disorders.

Substance use disorders have also become a major concern in Kenya and the burden of it has posed great challenge to the growth of the country. In 2019, according to Kamenderi, Muteti, Okioma, Kimani, Kanana and Kahiu study, the prevalence of multiple substance abuse disorders in Kenya stood at 5.3 percent. Kamenderi et al (2019) study further observed that half of those with substance user disorders in Kenya are aged between 16-45 years.

Family adaptability is defined as the family's ability to make modifications to the structure of the power domain, relationship roles, and the rules in the relationship roles as it relates to developmental stress (Javadian, 2011). Low family adaptability during the important developmental period of adolescence has led to adolescent behaviour problems due to the higher demands for attention and the parents not being able to adequately meet this need generally as a result of parental frustration. When there are increased levels of family flexibility, families can reframe mental illness or distress in a more positive light and, therefore, can facilitate better communication despite difficult circumstances (Crowe & Lyness, 2014).

Marina, Dragana and Vesna (2014) conducted a research with the aim to determine a correlation between a functionality of family systems, parenting style of parents and presence of adolescents' substance abuse problems (alcoholism and drug addiction). The sample size comprised of 50 adolescents with addiction diseases (alcoholism and drug addiction) who had ambulance or hospital treatment at the Clinic for Mental Health Protection in Nis and 50 adolescents who did not have any problems with addiction. FACES III scale developed by Olson, Portner and Levi (1985) was used to establish patterns of family functioning and thyeir relationship with adolescents' substance abuse problems.

The findings of the study showed that there is a statistically significant difference in relation to the structure of family system among the first group in which belong adolescents with substance abuse, and second group of adolescents. For instance on the basis of chi-square test Ȥ 2 =15.323, which is significant at the level 0.01, it was noted that occurrence of substance abuse among adolescents among adolescents whose parents had divorced was high as compared to adolescents whose parents had not divorced. With respect to patterns of family functioning, on the dimension of cohesion, the findings revealed that in the first group, 15 adolescents who were found with substance abuse problems came from family systems with disengaged patterns of family functioning, while the other group only 3 adolescents were from families with disengaged patterns. The results implied that there was existence of family systems that are unable to strike equilibrium between separateness and togetherness. Layla et.al (2015) carried out a qualitative study using focus group approach to gain deeper understanding of the attitudes and perceptions of adolescents in the United Arab Emirates regarding substance and to identify factors that, in their view, may influence the risk of substance use and suggest possible interventions. This was a qualitative study that used a focus group approach. The respondents were male and female teenagers aged 13-18 years residing in the emirate of Abu Dhabi. The respondents were 41 adolescents who were grouped into six focus groups. Data analysis was done thematically.

One of the themes which came out as a factor that influence adolescent use of substances was parent–adolescent relationship. Majority of the respondents reported that adolescents who use substances mostly conflict with their parents because they don't advice or support them. Another respondent said that parents need to be more supportive, embracing and not punishing their children for their unwanted behaviours. They believed that this would encourage children to open up to their parents about their issues including drug use which will facilitate better parental monitoring.

Vinces-Cua (2020) did a study to examine relationship between parental stress and adolescent externalizing behaviour (substance abuse) in Denver, Colorado. One of the hypothesis tested in the study was to find out whether does family functioning (family adaptability and family cohesiveness) as measured by the Family Adaptability and Cohesion Evaluation Scale – III (Olson et al., 1985) affects adolescent externalizing behaviour (substance abuse). The sample size comprised of 185 youth and families. Family Adaptability and Cohesion Evaluation Scales-III (FACES-III) developed by Olson et al. (1985) was used to measure family adaptability and cohesion. Adolescent Externalizing Behaviour was measured using Child Behaviour Checklist (CBCL) developed Achenbach and Rescorla, (2001). The tool consists of 113 behaviour problem items applicable to children ranging between the 4-18 years old.

The study findings revealed that families did not report higher levels of family adaptability. This in turn led to reductions in adolescent externalizing behaviour (substance abuse). There was no significant difference. Similarly, higher levels of family cohesion were reported in the families who took part in the study and this was found to lead to reduced adolescent externalizing behaviour such as substance abuse.

II. METHODS

Research Design

This study adopted a mixed methods embedded design. In this design, one data set provides a supportive, secondary role in a study based primarily on the other data type (Creswell, 2014). The premises of this design are that a single data set is not sufficient, that different questions need to be answered, and that each type of question requires different types of data. This design was particularly useful when the researcher needed to embed a qualitative component within a quantitative design. Through this design, quantitative data, and qualitative data was collected concurrently and integrated during data analysis, and interpretation to answer the research questions.

Location of the Study

The study was carried out in selected rehabilitation centres Nairobi County, Kenya. Nairobi County is one of the 47 Counties in Kenya. It is the most populous and largest city of Kenya with a cosmopolitan set-up. Almost all the tribes in Kenya are represented in the city. The city also houses all the organs of the government and it is the headquarters of almost all the organizations in the country. It is also the economic power house of the country. It borders Machakos, Kiambu, and Kajiado Counties. Because of its cosmopolitan nature, Nairobi has also been found to be both a destination and a conduit for hard drugs. Drugs of all types are sold in the city's black market. This is true given the fact that the city is highly populated and hence chances of finding a ready market for drugs are high. There have been incessant reports of incidences of drug impounding by police. The youth access these substances easily as they get money from their parents or from employment to procure various substances.

Target Population

The target population for this study was the youth admitted in selected rehabilitation centres in Nairobi and their parents/guardians. Nairobi County has 18 rehabilitation centers (NACADA, 2017). Through personal communication of researcher with directors of the 18 rehabilitation centers, it was confirmed that by the time the study was going on, the target population comprised of 303 youths. Usually, these rehabilitation centers do have more clients than these but the numbers were affected by the Covid 19 pandemic. However, the population targeted and identified had salient characteristics hence the study was carried out. The population in the rehabilitation centers may change from time to time due to new entrants as well as discharges on daily basis. Some rehabilitation centres have youths admitted while others visit from home, and some centres have more clients than others

Sample Size

According to Kamangar and Islami (2013), a sample size is a statistical representation of the population of interest. Therefore, choosing a sample is a key feature of any research undertaking. A sample allows generalization of findings to the entire population under the study. Yamane (1973) sample size formula was used to obtain the sample size for the study.

$$n = \frac{N}{1 + (e)^2 N}$$

$$= \frac{303}{1 + (0.05)^2 (303)}$$

$$= 172$$

This gave a sample size of 172 respondents.

After obtaining the sample size of 172 respondents using the formula by Yamane (1973), a random sample was obtained from each randomly selected rehabilitation centers as computed from the population of these rehabilitation centers. The sample size of the youth was accessed through the office of the administrators of the rehabilitation centers. This sample provided the quantitative data.

III. RESULTS

Respondents' Family Flexibility

The study sought to establish respondents' family flexibility. Flexibility referred to the family's ability to change rules and adapt to new things. Family flexibility was measured using FACES IV standardized tool developed by Olson (2010). The tool has 62 items and it measures family flexibility, family cohesion and family communication. The respondents were provided with 5-point Likert scale provide and were asked to indicate the degree to which they agree or disagree with each statement about themselves.

From the 62 items, only family flexibility is measured using items 2,5,6,8,11,12, 14,17,18,20,23, 24,26,29,30,32, 35,36,38,41 and 42. During scoring, family flexibility is measured using subscales such as family balanced represented by items 2,8,14,20,26,32 and 38. The second sub scale of family flexibility was rigid which was represented by items 5, 11, 17, 23, 29, 35 and 41. The last sub scale of family flexibility was chaotic which was represented by items 6, 12, 18, 24, 30, 36 and 42. During scoring and interpretation, all the items in each subscale were computed. Each subscale had 7 items and the Likert scale was scored 5-strongly agree, 4-agree, 3 undecided, 2- disagree and 1- strongly disagree. The scores were computed flexibility measured in terms of mean with the lowest possible mean being 7 and the highest possible mean being 35. A score of 14 and above would indicate above average of the measure. The findings were presented as shown in table 1.

Table 1: Respondents' Family Flexibility

	N	Minimum	Maximum	Mean	Std. Deviation
Family Flexibility (Chaotic)	132	7.00	35.00	24.4015	10.00142
Family Flexibility (Rigid)	132	7.00	35.00	17.4167	5.12447
Family Flexibility (Balanced)	132	7.00	35.00	16.3864	7.86979
Valid N (listwise)	132				

The findings in Table 1 indicate that most families recorded unhealthy flexibility with chaotic family flexibility (Mean= 24. 4015; SD= 10.001) followed by Rigid flexibility (Mean= 17.4167; SD= 5.1244). The healthy family flexibility that is balanced flexibility was the lowest with Mean=16.3864 which is slightly above the cut of average of 14. From these results it could be concluded that most families that took part in this study were dysfunctional in terms of flexibility. The chaotic families for instance appear not to be guided by rules as members are free to act as they wish while the rigid families are guided by strict rules that make members feel too much controlled.

Family Flexibility and Substance Use Disorders among the Youth

The study sought to find out whether there was relationship between Family Flexibility and Substance Use Disorders among the Youth. Pearson correlation analysis was used and findings presented in Table 2.

Table 2: Relationship between Family Flexibility and Substance Use Disorders among the Youth

Family Flexibility (Balanced)	Pearson Correlation	-.299**	1		
	Sig. (2-tailed)	.001			
	N	132	132		
Family Flexibility (Rigid)	Pearson Correlation	-.283**	.551**	1	
	Sig. (2-tailed)	.001	.000		
	N	132	132	132	
Family Flexibility (Chaotic)	Pearson Correlation	.204*	-.520**	-.182*	1
	Sig. (2-tailed)	.019	.000	.036	
	N	132	132	132	132

Source: SPSS Output (2020)

The findings in table 2 indicate that there was a weak negative and significant correlation between balanced family flexibility and drug use disorder (r=-0.299; P= 0.001), weak negative and significant correlation between rigid family flexibility and drug use disorder (r=-0.283, p= 0.001) and weak positive ad significant relationship between chaotic family flexibility and drug use disorder r= 0.204, p= 0.019). This implies that the more healthy families are the less drug use disorder is likely to increase. On the other hand an increase in family rigidity would also lead to a corresponding decrease in drug use disorder meaning that some rules would deter members from drug use. However an increase in chaotic family flexibility also would lead to an increase in drug use disorder.

IV. DISCUSSION

These findings disagree with Marina, Dragana and Vesna (2014) study findings. Dragana and Vesna (2014) study involved determining a correlation between a functionality of family systems, parenting style of parents and presence of adolescents' substance abuse problems (alcoholism and drug addiction). With respect to patterns of family functioning, on the dimension of cohesion, the findings revealed that in the first group, 15 adolescents who were found with substance abuse problems came from family systems with disengaged patterns of family functioning, while the other group only 3 adolescents were from families with disengaged patterns. The results implied that there was existence of family systems that are unable to strike equilibrium between separateness and togetherness.

Similarly, Layla et. al (2015)study findings were in agreement with this study findings. The study was qualitative and used focus group approach to gain deeper understanding of the attitudes and perceptions of adolescents in the United Arab Emirates regarding substance and to identify factors that, in their view, may influence the risk of substance use and suggest possible interventions. The study found that majority of the respondents reported that adolescents who used substances mostly conflicted with their parents because they didn't advice or support them. Another respondent said that parents needed to be more supportive, embracing and not punishing their children for their unwanted behaviours. They believed that this would encourage children to open up to their parents about their issues including drug use which will facilitate better parental monitoring.

However, these study findings disagreed with Vinces-Cua (2020) study findings. Vinces-Cua (2020) study was conducted to examine relationship between parental stress and adolescent externalizing behaviour (substance abuse) in Denver, Colorado. The study findings revealed that families did not report higher levels of family adaptability. This in turn led to reductions in adolescent externalizing behaviour (substance abuse). There was no significant difference. Similarly, higher levels of family cohesion were reported in the families who took part in the study and this was found to lead to reduced adolescent externalizing behaviour such as substance abuse.

Conducting a similar study was Đurišić (2018). The study sought to establish a link between family functioning (climate) and youth externalizing behaviour problems. The sample size comprised of 135 students aged 11 to 14 years old. The respondents completed Achenbach System of

Empirically Based Assessment Youth Self-Report developed by Achenbach and Rescoria (2001). Family functioning was measured through the Family Adaptability and Cohesion Scale – IV (FACES-IV developed by Olson (2009). The findings of this study revealed that youth with externalizing behaviour lived with families with problematic functioning (low adaptability and level of cohesiveness was low. The study concluded that Families with low quality family relationships had poor adaptability and connectivity hence higher externalizing behaviours among the adolescents.

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