

Factors Influencing Drug Addiction among the Youth: Special Reference to Rehabilitation Centres and Counseling Centres Established under the National Dangerous Drug Control Board

DUP Dasanayake

Department of Social Statistics, University of Kelaniya
dupamodi@mail.com

Abstract

Drug addiction is defined as a chronic, relapsing disorder characterized by compulsive drug seeking, continued use despite harmful consequences, and long-lasting changes in the brain. Even though there is no evidence of ongoing illicit manufacture of drugs in Sri Lanka, the number of drug addicts that admit for treatment per year has been significantly increasing. Therefore, this study is established to find out the factors influencing drug addiction among the youth. The sample size for the study was 50 youths from the “Nawadiganthaya” rehabilitation centre and the “Siyapatha” counseling centre. Descriptive statistics, factor analysis, were used for data analysis and SPSS, and Minitab and Excel were used for data presenting purposes. The results of principal component factor analysis identified five factors, family & social issues, deprivation, physical issues, companionship and social Isolation. According to the findings of the study, the only determined relationship with drug addiction, among the demographic factors is the education level. As identified, the most commonly used drugs are cigarettes, heroin and ice. This paper is however limited to the investigation of these factors and recommends the way forward in identifying and reducing drug addiction among the youth in Sri Lanka.

Keywords: Addiction, Drugs, Influence, Factors, Youth

1. INTRODUCTION

“Drugs destroy lives and communities, undermine sustainable human development and generate crime. Drugs affect all the sectors of society in all counties; in particular, drug abuse affects the freedom and development of young people, the world’s most valuable asset. Drugs are a grave threat to the health and well-being of all mankind, the independence of States, democracy, the stability of nations, the structure of all societies and dignity and hope of millions of people and their families” (United Nations, 2016).

About 275 million people worldwide, which is roughly 5.6% of the global population aged 15-64 years, used drugs at least once during 2016 and non- medical use of prescription drugs has reached epidemic proportions in parts of the world. Some 31 million people who use drugs suffer from drug use disorders, meaning that their drug use is harmful to the point where they may need treatment (United Nations Office on Drugs and Crimes [UNODC], 2016). 1978 constitution introduction of the open economic policy instead of the closed economic policy in Sri Lanka. Through this tourists were able to bring many things to the country. In the 1980s, it became evident that heroin was entering the country mainly through tourists. After 1980, with changes in socio-economic policies and the North and East violence, drug smuggling increased (de Silva & Fonseka, 2008). Gradually, the Sri Lankan youth was addicted to heroin which were procured free of charge and they became unable to be left without drugs. As a result of that, the demand for heroin continuously increased. In the meantime, the production of cannabis was also commenced on a large-scale lateral to heroin. The geographical position of Sri Lanka also made it more tolerant for drug abuse and drug trafficking in the country because Sri Lanka is located in the centre of the Eastern sea and located between two drug-producing zones. The countries Myanmar (Burma), Laos, and Thailand which are known as the “Golden Triangle”, located in the Eastern side of Sri Lanka and countries Pakistan, Iran, Afghanistan which were known as the “Golden Crescent” located in the Western side of Sri Lanka (Dharmapriya, 2001). Nepal, which provides Marijuana and Hashish to the world market located near the country also contributed to the drug trade in Sri Lanka. Therefore, Sri Lanka is well known in the world as a country which consumes drugs and also as a drug transport hub.

Worldwide, it is estimated that about 5% of the total population ages 15-64 used illicit drugs at least once in 2008 (UNODC, 2010). The problem of illicit drugs attracts more public concern and attention than any other social issue. The usage and the prevalence of narcotic drugs in Sri Lanka has become the most critical issue. This has become an irreconcilable problem due to the rapid circulation of various drugs. Drug addiction is a major problem with increased crime, diseases and poverty among addicts leading to social and family disruption (Silva & Fonseka, 2008). In 2017 the total number of drug-related arrests was 81,156. Compared with the year 2016, drug-related arrests have increased by 2% in 2017. The prevalence of drug-related arrests was 506 per 100,000 among the population aged between 15-64 in 2017 (Handbook of Drug Abuse Information in Sri Lanka - 2018, NDDCB).

Cannabis, Heroin and Opium related arrests between the age group 15- 24 are reported in each year from 2013 to 2017. When considering the corresponding years, 2017 has the highest number of admissions (2,706) for the treatments and among them, 657 admitted was between the age group of 15-24. Therefore, restraining the usage of drugs among the youth is essential both economically and socially. Hence, for the process of identifying the prominent factors influencing drug addiction among youth is significant. Accordingly, this study aims to study what the factors of influencing drug addiction are among the youth.

Even though there is a rapidly growing usage of drugs among the youth day by day, we can identify the lack of proper researches done for this area to realize the factors influencing the addiction. Hence, the researcher of this research identified the gap between this and got the opportunity to continue the research with a particular area. Therefore, research problem can be defined as “what are the factors influencing drug addiction among the youth?”.

This research is conducted in relation to the above-mentioned research problems and key objective is “to identify the key factors influencing drug addiction among the youth”.

2. LITERATURE REVIEW

The word “drugs” is a commonly used term in society. Drugs are both illegal and legal and they are accepted in the society. Also, the medicines that are manufactured using drugs are common in the world. Drugs are chemicals that affect the body and the brain. Different drugs can have different effects. Effects of drugs include health consequences that are long lasting and permanent. They can even continue after a person has stopped taking the substance. Many of these drugs are responsible for the degeneration of the human body, as well as a psychological and psychological imbalance. The small number of chemicals that can cause physical and mental changes and when used for some period become impossible to give up is called drugs.

Drug addiction is a chronically relapsing disorder that is defined by two major characteristics: a compulsion to take drugs with a narrowing of the behavioural repertoire toward excessive drug intake, and a loss of control in limiting intake (American Psychiatric Association, 1994; World Health Organization, 1992). According to O’Brien (2003), drug addiction is traditionally underappreciated as a disease rooted in neuropathology. Use of drugs also leads to changes in the body and it results in the incentive for the drugs. Hence, the drugs had been inappropriately used and later this condition leads to addiction.

Mainly this review will focus on four major clarifications, which emerge repeatedly throughout the literature review. As Dharmapriya (2001) and Weerakoon (2003) mention, these clarifications are, Legal clarification, Medical clarification, Ethnobotany clarification, Psychological clarification.

Under the Narcotics Ordinances, the Government of Sri Lanka has imposed severe penalties for the possession, manufacture and sale of a number of illicit drugs. Sri Lanka police, Custom, Excise Department and National Dangerous Drug Control Board (NDDCB) are working in partnership to enforce these rules. Their activities include, law enforcement, prevention, study and public awareness, treatment, rehabilitation, postoperative care and promotion of international and regional cooperation.

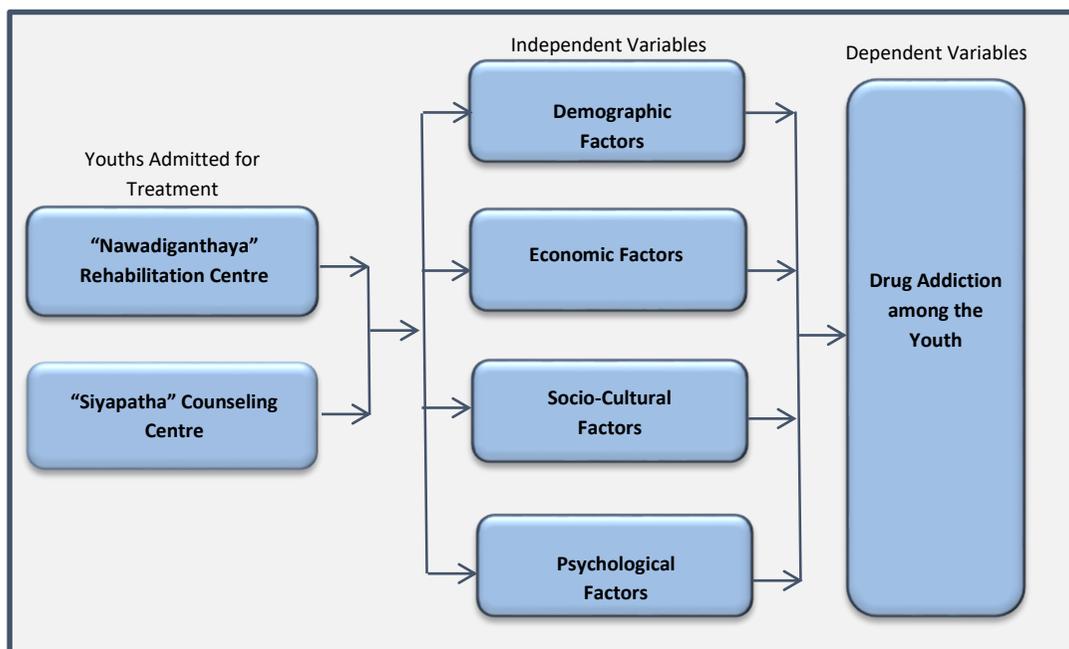
Oyundi (2015), Under Factors Influencing Drug Abuse among the Youth in Vihiga Sub Country, Kenya, four factors were identified. Demographic, socio-cultural, economic and source of knowledge and awareness on drug abuse, factors were investigated through the research. For analyzing techniques, percentages, frequencies, measures of central tendency, mean was used. Statical Package for Social Statistics (SPSS) was used as the analysing software. Adeoti (2010) investigated the Factors Influencing Substance Abuse among Undergraduate Students in Osun State, Nigeria. The sample was selected randomly under the multistage sampling technique. The split-half method was used to determine the internal consistency of instrument. Collected data were analyzed using a simple percentage, t-test, Analysis of Variance (ANOVA). For the research, Factors Contributing to Drug Addiction among Youth of Azad Kashmir by Bibi and Mushtaq (2018), quantitative research design with survey method was used as the research design. Peer pressure, media, family negligence, depression, curiosity and physical dependence to drug use are used as the independent variables and drug addiction is used as the dependent variable. Descriptive statistics, regression and correlation structures use data analysis.

3. METHODOLOGY

The study adopted a descriptive research design and aimed at collecting data for identifying the factors influencing drug addiction among the youth. The descriptive survey can be used to collect information about people's attitudes, opinions, habits and any kind of education varieties or social issues (Ordho & Kombo, 2002). Mugenda and Mugenda (2003) assert that the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study.

Therefore, due to the capability to assure the minimization of the bias and maximization of the reliability of testimony collected, this design was chosen. Rehabilitation centres and counselling centres present people who have been admitted for treatment from different areas of the country and different ages. The total number of drug addicts aged between 21- 32 admitted in the “Nawadiganthaya” rehabilitation centre are included in the study during the period of data collection. Both first admission and readmission addicts were invited to take part in survey. And also, rest of the sample was completed from the “Siyapatha” Counseling Center.

Figure 4.1: Conceptual Framework.



Source: Author Developed, 2019.

According to the conceptual framework, research mainly considers two centres and has collected data through questionnaires from the youths who were admitted for treatment. For the identification of the factors influencing drug addiction, certain factors influencing drug addiction among the youths in Sri Lanka have been included. These factors are demographic factors, economic factors, socio-cultural factors and psychological factors. Drug addiction among the youth is a dependent variable affected by independent variables. Dependent and independent variables in the figure 1 will be guided in the study as shown in conceptual framework.

3.1 Population, Sample size and the Sampling Procedure

Young drug addicts who admit for treatment are the target population. All the drug addicts who receive treatment from the 26 registered treatment centres and organizations in Sri Lanka can be determined as the target population.

Therefore, when considering the amount of population for the sample, the researcher has used the number of drug-related admissions in 2017 for treatment in Sri Lanka, due to the unavailability of the number of young people addicted or consume the drug. Hence, the population of this research can be identified as 2706.

Under the probabilistic sampling techniques, the cluster sampling method was used as the sampling technique to generalize the results related to the research. NDDCB situated in the Western Province was selected to collect the data due as the Western Province reported the highest number of admissions for the treatments and NDDCB is the only statutory board, established under the National Dangerous Drug Control Board Act No.11 of 1984. Four rehabilitation centres and two counseling centres which are under the preview of NDDCB were taken into consideration and due to the reason of limitation of age, only one rehabilitation centre and one counseling centre were selected for the sample. All those who were admitted to the rehabilitation centre during the period of data collection, are included in the sample. Rest of the sample was selected by a simple random sample method from the counseling centre.

To determine the sample size; the Yamane method (1967) was used. The sample has been simplified by using the Yamane formula since it states that the desired sample size is a function of the target population and the maximum acceptable margin of error and it is expressed mathematically (Oyundi, 2015). Therefore, the calculated sample size is 50. This implies that 50 youths were involved in the study. To select a sample of 50, data was collected from the "Nawadiganthaya" rehabilitation center and the "Siyapatha" counseling center situated in the Western Province. Data was collected using self-administered questionnaires, respondents were given freedom to respond, and data was obtained without any impact.

4. DATA ANALYSIS

4.1 Reliability Analysis

Most of the variables in the research instrument were presented by binary, nominal variables. Therefore, a special case of Cronbach's alpha Kuder-Richardson formula (KR-20) was used to check the reliability.

Chronbach's alpha minimum value of 0.7 would be considered acceptable. The results of Chronbach's alpha value for this study was taken by KR-20, suggests that the internal reliability of each instrument is satisfactory in a 0.945 significant level.

4.2 Distribution of Demographic Information

Table 4.1: Demographic Information.

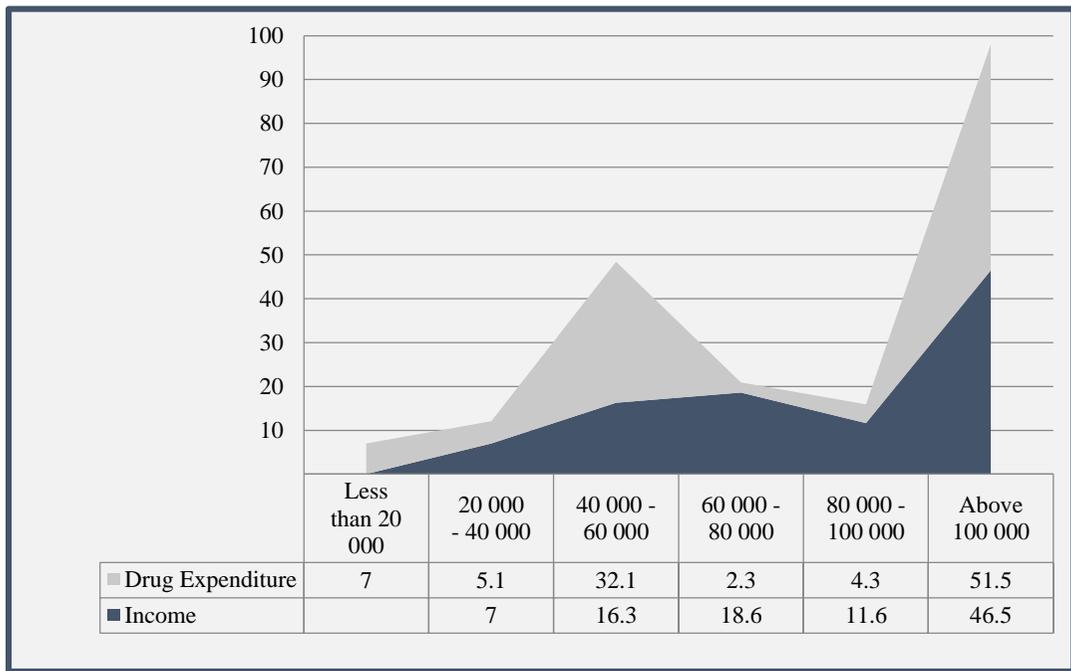
Demographic Characteristic	Factors	Percentage (%)
Residential Area	Rural	62
	Urban	38
Age	16-20	16
	21-24	54
	25-29	26
	30-34	4
Ethnicity	Sinhala	86
	Muslim	14
Religion	Buddhism	84
	Islam	12
Educational Level	Catholic	4
	Give up	14.3
	Has Completed Primary education	6.1
	Has Completed O/L	63.3
Marital Status	Has Completed A/L	16.3
	Never been Married	31.9
	Unmarried	31.9
	Married	31.9
Current Status	Divorced	2.1
	Other	2.1
	Doing a Job	81.6
	Not Doing a Job	18.4

Source: Sample Survey (2019)

As mentioned in table 4.2 drugs had influenced both the rural and urban areas in the country. However, no one was recorded from the estate area at the moment the researcher was collecting data.

Majority of the sample demonstrated 54% within the age group 21-24. No Tamils or Burgers were recorded. The highest percentage of 62% of the entire number of responses indicated those that have completed Ordinary Level. Among the 50 respondents, 81.6% have a job and this category includes a software engineer and a manager from a private company. 18.4% of jobless people were recorded and the use of drugs and other antisocial activities have been mentioned as reasons. When examining the distribution of the married age of drug addicts, the mean age can be identified as 16. Among the respondents, 30% never been married and 60% of married have children.

Figure 4.1: Monthly Income vs. Drug Expenses.



Source: Sample Survey (2019)

Respective to the figure 4.1 the monthly incomes were approximately calculated by collecting data on monthly expenses. As the figure illustrates there is a big gap between monthly income and the drug expenses of a family. According to the responses, 51.5% spend more than 100 000 lakhs for drugs. It is the category where the highest numbers of respondents were included. The least number of respondents were included in the 60 000 - 80 000 categories and the second-highest was recorded in the 40 000 - 60 000 category. As an overview, it can be said that more than 95% of respondents spend more than 40 000 per month for drugs.

4.3 Factors Influencing Drug Addiction

As mentioned, dealing with family members faithfully, having a good understanding among the family members, giving love and affection, and interfering with life are those. The number of variables recorded was more than 50 per cent. Contradictory values that were (Mentioned as "No") recorded were less than 50 per cent.

Table 4.3: Relationship with Family Members.

	Yes	No
Dealing Faithfully	52	48
Having a Good Understanding	60	40
Giving Love and Affection	70	30
Interfering with Life	84	16

Source: Sample Survey (2019)

64% of respondents have spent more time with their friends. The least number of respondents was recorded to having spent time with parents and relations, with only 10 and 12% respectively. 14% of drug addicts have spent their time with their spouse.

Table 4.4: The Person with whom More Time is Spent.

	Per cent
With Spouse	14
With Parents	10
With Friends	64
With Relations	12

Source: Sample Survey (2019)

According to the results, 100% of the sample were daily users and the highest numbers of respondents consist of people who use drugs more than three times per day and it is 38 per cent. 28% use drugs twice a day while 24% use thrice a day. The least number of people use drugs only once and it is 10 per cent. However, most of the respondents showed reluctance to answer the question from whom they buy drugs. No family members of 68% of respondents use drugs. From the 32% of family members who use drugs, 12% were fathers and 10% were brothers. Other 10% were mentioned as relatives.

Table 4.5: Other Members Who Use Drugs in the Family.

		Per cent
Other People who use Drugs in the family	Yes	
	Father	12
	Brother	10
	Other	10
	No	68

Source: Sample Survey (2019)

Table 4.6: The First Usage of Drugs and How to Raise Money for Drugs.

Factor		Per cent
Method of Raising Money to Buy Drugs	From Own Salary	86
	From Parents	36
	From a Friend	34
	By Loans	26
	By Mortgage or Sale of belongings	24
	Other	10
First awareness of Drugs	Advertisements	6
	Friends	84
	Mother or Father	10
	Relations	8
	Neighbours	12
	Others	14
Reason for the initial usage of Drugs	Curiosity	72
	The motivation of Friends or Relatives	32
	Desire to behave as an Adult	4
	Other	16

Source: Sample Survey (2019)

For methods of raising money to buy drugs, the way of first becoming aware of drugs and the reason for the initial usage of drugs, variables collected data as multiple choices. Therefore, 86% of the highest number of respondents spend their own salary to buy drugs. 36% gain money from parents and 34% from friends. 26 and 24% of

respondents raise money by loans and mortgage or sales of belongings respectively. Other 10% raises money by anti-social activities.

The highest number of drug addicts are made aware of drugs for the first time by friends. It is 84 as a percentage. The least number of people have gained awareness of drugs by advertisements and it is 6 per cent. 10% of addicts who were made aware of drugs by their parents is also included the sample. And 12% from neighbours, 8% from relations and 14% from other methods were recorded as other methods and they have mentioned that, by seeing how other people were enjoying using drugs in movies and in working places have encouraged them to use drugs. 72% of people who have used drugs in the first time have done it for curiosity. 32% by the motivation of friends or relatives and 4% have first used drugs for the desire of behaving like an adult. The respondents of 16% mentioned that they have used drugs for the first time as an experiment.

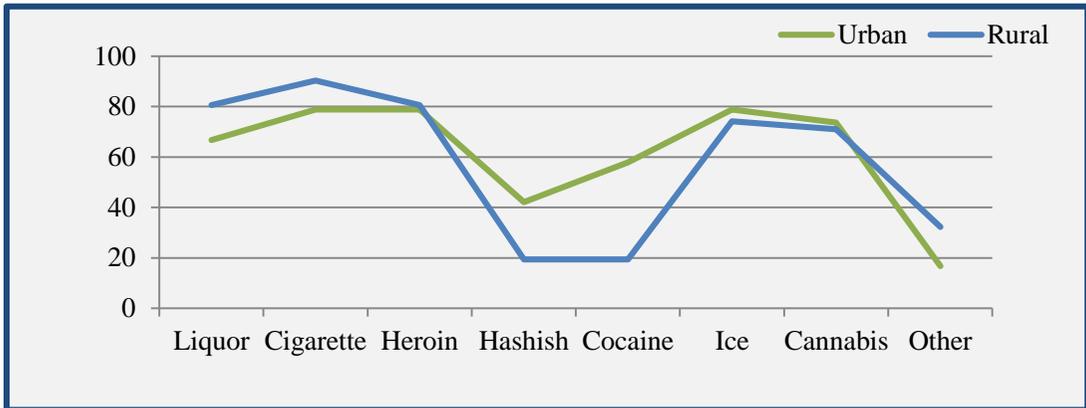
Table 4.7: Types of Drugs and Methods of Use.

Attributes		Per cent
Drugs	Liquor	75.5
	Cigarette	87.8
	Heroin	81.6
	Hashish	28.6
	Cocaine	34.7
	Ice	77.6
	Cannabis	73.5
	Other	26.5
Methods of Use	Drink	63.3
	Inhalant	81.6
	Inject	22.4

Source: Sample Survey (2019)

It can be determined that liquor, cigarette, heroin, ice and cannabis are used by more than 75 per cent. Highly used drugs are cigarettes and heroin which are 87.8 and 81.6% respectively. Ice is used by 77.6 per cent, cannabis by 73.5 per cent, and liquor is used by 75.5% from the sample. 26.5% of other kinds of drug uses were recorded and varieties of drugs that were used are tablets, opium, syrups, magic mushroom, morphine, LSD, mandy, MDMA and pill. When considering the methods of using drugs, 63.3% drink drugs and 81.6% use the inhalant method. 22.4% of drug users inject the drugs. No one who used other methods for using drugs were found.

Figure 4.2: Varieties of Drug vs. Residential Type.



Source: Sample Survey (2019)

As the chart elaborates, the distribution of the usage of varieties of drugs were significantly in both rural and urban areas. Cigarette usage shows the highest percentage in the rural area. The lowest usage of varieties of drugs are recorded in the rural areas where Hashish and Cocaine are used. Ice usage in rural areas depicts 75 per cent.

Table 4.8: Difficulties Face as a Result of Drug Use.

Factor	Per Cent
Social Isolation	61.2
Neglected from the Family	34.7
Disruption of Education	42.9
Loss of Employment	75.5
Neglected from Friends	42.9
Involved in Crimes	28.6
Imprisonment	55.1
Other	12.2

Source: Sample Survey (2019)

As the results shown in the table 4.8, 61.2% are socially isolated. The highest percentage difficulty that has been met is the loss of employment, which is 75.5 per cent. And 55.1% have been incarcerated to jail as a result of drugs. 34.7 were neglected from the family while 28.6% involved in crimes due to drug use. 12.2% of people mentioned as other and stated that they feel guilty in front of the society and face a lot of setbacks in life.

Table 4.9: Attitudes towards Results of Consequences of Drug Use.

The Results of Considering drugs as Good		The Results of Considering drugs as Bad	
Forgotten the Problems	79.5	Physical/ Mental Illness	61.4
Built Self-Confidence	31.8	Lead to do Illegal Activities	63.6
Strengthened the Body	50	Broken Down the Unity of the Family	59.1
Felt Like a Hero	4.5	Couldn't Depend without Drugs	61.4

Source: Sample Survey (2019)

Consequences of considering drugs as good to forget the problems, build self-confidence, strengthen the body, feel like a hero and those who have considered the consequences as bad are caused physical and mental illness, do illegal activities, break down the unity of the family and cannot depend without drugs. Accordingly, the highest number of people who have considered the consequences as positive have forgotten the problems and it is 79.5% the highest number of users who have considered the consequences negatively have been lead to do illegal activities which is 63.9 5. Those with occurrences of physical or mental illnesses and those that could not depend without drugs are 61.4 %

4.4 Factor Analysis

Table 4.10: Communalities Table.

Attributes	Extraction
The Motivation of Friends.	0.731
Genetic Influence.	0.807
Conflicts with of Parents.	0.807
Conflicts with Spouse.	0.617
Divorce.	0.754
Social Isolation.	0.821
Mental/ Physical Illnesses.	0.673
Unemployment.	0.775
Availability of Drugs.	0.577
Setback in Quality of Life.	0.779
Poverty.	0.746
Death of Close Family Member/ Friend.	0.788
Loneliness.	0.825

Source: Sample Survey (2019)

What Principal Axis Factoring does is, instead of guessing 1 as the initial commonality, it chooses the squared multiple correlation coefficient R^2 . In here all most all the values are enabled with the high extraction value (> 0.5) and it means that values are well represented in the common factor space. However, genetic influence, conflicts with parents; social isolation and loneliness have shown a higher extraction than the other factors.

Table 4.11: Factor Analysis.

Attributes	Factor Loading				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Family & Social Issues					
Conflicts with Parents	.732				
Conflicts with Spouse	.750				
Divorce	.813				
Setbacks in Quality of life	.859				
Poverty	.828				
Availability of Drugs	.489				
Deprivation					
Unemployment		-.870			
Death of a close friend/ family member		.882			
Physical Issues					
Genetic Influence			.859		
Mental/Physical illness			.574		
Companionship					
Motivation of Friends				.732	
Loneliness					
Psychological Issues				.853	
Social Isolation					.801
Kaiser-Mayer-Olkin Measure of Sampling Adequacy 0.684					
Burtlett's Test of Sphericity $p = 0.000$ (270.855, Df = 78)					

Source: Sample Survey (2019)

The results of principal component factor analysis identified five factors among thirteen variables, defined by the eighteen variables.

Among those eighteen variables, four variables were avoided since they were no respondents stating that they were influenced. Those variables are parents' influence, religious influence, lack of children and a prescription medicine used for a long time. As mentioned in the table Bartlett's Sphericity value is 270.855 and the significance value is 0.000. This number indicates data for Principle Component Analysis performing 74.615% of the cumulative variance of the data and 0.945 of Cronbach's Alpha values shows the reliability of factors.

5. DISCUSSION AND CONCLUSION

According to the, sample majority were represented by the rural area. Ages distributed between 16 to 35 and the highest number of admissions for treatment at the ages between 21-24. Only Sinhalese and Tamils were represented by the sample and Sinhalese were the majority. The highest number of drug addicts have only completed O/L and most of them had not faced the O/L examination. So it can be conveyed that most of the people who have been addicted to drugs have a low education level or a disrupted primary education. Majority of the job holders had careers in the private sector or were labourers and people who were self-employed were also reported. It can be determined that even people who were considered to have a socially accepted status also have been addicted to drugs. Most drug addicts were married at an early age and the mean age of marriage of drug addicts was 16 years. 30% has never been married yet recorded as having children. Mean distribution of the initial age of drug use was 17 and it can be identified that the people get addicted for drugs in their childhood. The highest number of drug users used drugs more than three times and there were some addicts that used drugs nearly seven or eight times per day. Majority of the respondents had been made aware of drugs from friends and they used drugs for the first time because of curiosity and the motivation of friends. Cigarettes are the most commonly used drug. After cigarettes, heroin, ice, alcohol and cannabis can be identified as the most commonly used drugs. According to the Principle Component Analysis, Varimax rotation method was used and 5 factors were extracted. Conflicts with parents, conflicts with the spouse, divorce cases, setbacks in quality of life, poverty and availability of drugs were extracted in areas under 'Family and Social Issues' factor (1). Under the 'Deprivation' (factor 2) unemployment, deaths of a close friend/ family member attributes were extracted. 'Physical issues' (factor 3) were identified as genetic influence and mental/physical illnesses. Factor 'Companionship' (4th factor) include attribute of the motivation of friends and loneliness. 'Psychological factor' (5) consists of the attribute of social isolation.

When considering the relationship between demographic factors and drug addiction, an association between education level and drug addiction has been identified. There is no relationship identified between drug addiction and the residential area, age, religion, marital status and current status.

REFERENCES

- Adeoti, F. (2011). Factors Influencing Substance Abuse among Undergraduate Students in Osun State, Nigeria. *African Research Review*, 4(4). doi:10.4314/afrrrev.v4i4.69233
- American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Washington DC, American Psychiatric Press
- Dharmapriya, J.D.(2001), *Drugs and Society* (1st ed.). Warakapola, Heladiwa Publishers.
- Drug And Alcohol Addiction. (n.d.). *Addiction Campuses*. Retrieved November 12, 2019, from <https://www.addictioncampuses.com/drug-addiction/>
- Handbook of Drug Abuse Information in Sri Lanka - 2018, NDDCB.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Qualitative and Quantitative Approaches*.
- Mushtaq, & Bibi. (2018). Factors contributing to drug addiction among youth of Azad Kashmir. https://www.researchgate.net/publication/322746284_Factors_Contributing_to_Drug_Addiction_among_Youth_of_Azad_Kashmir.
- Nairobi: Acts Press. Mugenda, O. M., & Mugenda, A. G. (1999). *Research methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- National Institute on Drug Abuse (2004). *PhysicalandPsychEffectsSubstanceUse.pdf*. Retrieved November 12, 2019, from [https://ncsacw.samhsa.gov/files/ Training Package/ MOD2/PhysicalandPsychEffectsSubstanceUse.pdf](https://ncsacw.samhsa.gov/files/TrainingPackage/MOD2/PhysicalandPsychEffectsSubstanceUse.pdf)
- O'Brien CP (2003). Research advances in the understanding and treatment of addiction. *Am J Addict* 12 (Suppl 2): S36–S47.
- Orodho, A. & Kombo, D (2002) *Research Methods*, Nairobi, Kenyatta University, Institute of Open Learning.
- Oyundi, J. A. (2015). *Factors influencing drug abuse among the youths in vihiga sub county, kenya*. 100.
- United Nations Office on Drugs and Crime. (2016). Retrieved June 13, 2019, *Terminology and information on drugs*. https://www.unodc.org/documents/scientific/Terminology_and_Information_on_Drugs-3rd_edition.pdf

United Nations Office on Drugs and Crime. (2016). *UNODC.pdf*. Retrieved July 10, 2019
<https://www.unodc.org/prelaunch/WDR18>

Weerakoon, U.W. M. (2003). *Drugs* (Ed.). Jayan Publications. World Health Organization (1992). *International Statistical Classification of Diseases and Related Problems*, 10th ed. Geneva, World Health Organization

Youth and Addiction—The Staggering Reality. (2016). The Cabin Chiang Mai.
<https://www.thecabinchiangmai.com/blog/youth-and-addiction-the-staggering-reality/>