

ORIGINAL ARTICLE

Quality of Life and Tendency to Aggression Among Relapsed and First Time Substance Abusers: A Comparative Assessment Study

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ABSTRACT

Introduction: Drug abuse is a prevalent issue in Malaysia, and a constant struggle to eradicate even among substance abusers who have received prior rehabilitation. Drug abuse has also been known to affect the quality of life of an individual, due to the stigma it carries. This research emphasized on studying the life quality of relapsed and first-time substance abusers in rehabilitation centres including their tendency towards aggression. **Methods:** A cross-sectional study was conducted to evaluate the current inpatients in Cure & Care Rehabilitation Centres (CCRC) in Peninsular Malaysia. Primary data was acquired using a self-administered questionnaire consisting of socio-demographic (Part A), quality of life (Part B) and aggression related questions (Part C). 417 individuals were selected through purposive sampling from five different centres. A statistical analysis was conducted using independent t-test, single linear regression and Kruskal-Wallis using SPSS version 25.0. **Results:** An analysis of the data presented no significant association between quality of life and tendency of aggression among relapsed and first time substance abusers ($p>0.05$). Based on the analysis and the outcome, age influences the level of aggression ($p=0.018$) while quality of life is affected by education level ($p=0.017$). Marital status is a factor that affects both the level of aggression ($p=0.015$) and quality of life ($p=0.043$). **Conclusion:** The findings may contribute to law enforcements in reducing violent crimes committed by drug abusers and rehabilitation efforts by rehabilitation centres, by establishing demographic profiles in relation to quality of life and aggression.

Keywords: Drug abuse, Relapsed, Quality of life, Aggression

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INTRODUCTION

Substance abuse has been an ongoing problem which is still being faced in the society as it is easily available and is smuggled into the country. According to National Anti-Drugs Agency (NADA), drugs are psychoactive chemical substances that are misused for purposes other than medical treatments (1), and are commonly misused for recreational use or coping with stress instead of medical purposes. The risks of substance abuse could lead to worse conditions such as human immunodeficiency virus (HIV) and eventually death. Addiction towards substances will affect them both physically and psychologically and if abused for a long period it may cause over dependence or develop tolerance towards substances (2).

Individuals who abuse drugs can be classified into two categories; namely first time drug abusers or relapsed drug abusers. First timers are those who are doing something for the first time and relapse is defined as the action of returning to consuming or abusing drugs after undergoing rehabilitation to treat their addiction (3).

Relapsed and first time substance abusers tend to have various levels of quality of life ranging from poor to good depending on the individuals recognition of their position in life in the context of value systems in which they live and are related to their goals, standards and concerns (4). The relapsed abusers may have developed tolerance against substance(s) abused as the body learns to tolerate with the substance (5). Substance abuse reduces the quality of life of a person as it affects their daily life. The after effects of the substance changes a person in terms of their lifestyles, behaviours, and physically (6). The quality of life of substance abusers deteriorates leading to them needing proper care and cure. The World Health Organization (WHO), has refined an assessment

on the quality of life to study only relevant areas of the individual to help with understanding post-effects of substance abuse. There has been studies that argued on the subjective nature of an individual's "quality of life" as it is a challenging theory to define and measure but it may be perceived as an intricate concept accentuating the individual's impression on the present state of mind (7). Aggression is a form of behaviour, which aims to harm or injure an individual who is propelled to avoid such treatments. In the context of law, the term "violence" is used commonly for individuals who have involved themselves with drug consumptions, whereas, in researchers or studies, the term "aggression" is used in studies that exploits drug regulation and laboratory measures (8). Aggression is known as a reaction that leads to harmful consequences to another individual (9).

The post-effects of substance abuse could cause changes psychologically which could make them aggressive (8, 10). Some research findings shows that aggressive behaviour occur from the use of vast varieties of deadly drugs. Another research also concluded similar findings that psychopharmacological effects of morphine use may result in aggression (11). The rate of aggressive behaviours among drug users are results of an increase in the levels of ecstasy users (12). Based on these two statements, it can be observed that the use of drugs affects their daily life and affects them psychologically. Between the year 2011 and 2015, a total of 20,731 individuals were registered for treatment at the Cure and Care Rehabilitation centres based on statistics provided by the NADA drug abusers' profile management. About 9,563 were new cases of drug addicts, which is 46% of the total amount and in 2015, about 41% or 1,973 from 4,838 drug abusers relapsed (13). The government has made efforts into making Malaysia a drug free country by 2015, but even with laws enforced, there has been an increase in the total of first time and relapsed drug abusers (14, 15). Therefore study compared the quality of life and tendency to aggression among relapsed and first time substance abusers in rehabilitation centres. Through this study, the relationship of the quality of life and their tendency towards aggression among the relapsed and first time substance abusers can be studied. The level of quality of life and aggression based on socio demographic background for the relapsed and first time substance abusers can be compared. Studying these parameters, will help in understanding the steps that can be taken to reduce the number of substance abusers in Malaysia. The WHOQOL-BREF and Buss Perry assessments were carried out in Cure and Care Rehabilitation Centres (CCRC) under NADA to study the problem. Through this research, it is hoped that better programs and/or treatments can be suggested for the purpose to enhance the quality of life and reduce the tendency towards aggression of both first time and relapsed substance abusers.

MATERIALS AND METHODS

To compare the quality of life and tendency to aggression among relapsed and first time substance abusers, a cross-sectional study was designed. In this research, data was collected from 417 respondents who were male individuals aged 18 years and above from five CCRC in Peninsular Malaysia through questionnaires in order to fulfil the research objectives which was to study the quality of life and tendency to aggression among the substance abusers in rehabilitation centres. Purposive sampling, which satisfies the objectives of this study based on certain criterias, was employed. The criterias were Malaysian individuals of any race; and are able to read and understand Malay or English language. Individuals that does not meet these criteria were excluded. The research instrument used in this study for data collection was a self-administered questionnaire. The questionnaire consisted of three parts. The first part of the questionnaire was used to obtain the socio demographic information of the respondents. The second part was to study the quality of life of the respondents using questions, which were adapted from the World Health Organisation-Brief (WHOQOL-BREF) in 1997 and the updated version of the WHOQOL-BREF (16). The WHO, has refined an assessment on the quality of life to study only relevant areas of the individual to help with understanding post-effects of substance abuse. The assessment is known as WHOQOL-BREF which is the simpler version of WHOQOL 100 that contains psychometric contents which are tested in adults (16). The assessments comprises certain areas of an individual such as their satisfaction with life, health and daily routine (17). The questions in WHOQOL-BREF are divided into four different domains such as physical health, psychological health, social relationship and environmental health (18). Aggression was studied in the third part using questions that were adapted from Buss Perry Aggression Questionnaire, where this assessment covers four fields which are physical aggression (PA), verbal aggression (VA), anger (A) and hostility (H) (9). The research instruments used were readily available in English. For this study, the research instrument was translated into the Malay Language. The content of the research items were maintained during the translation process to ensure its consistency. Face validity by an expert and a pilot test was conducted to validate the questionnaire.

The statistical tests used to analyze the data were independent t-test to compare the quality of life and tendency to aggression among relapsed and first time substance abusers, single linear regression were used to study the relationship of the quality of life and tendency to aggression among relapsed and first time substance abusers. Kruskal-Wallis analysis were used to compare the level of quality of life and aggression based on socio

demographic background for the relapsed and first time substance abusers. An ethical approval was gained from the MSU Ethics Committee (MSU-RMC-02/FR01/08/L1/257). For data collection at the CCRC, consent and approval was acquired from the National Anti-Drugs Agency (AADK 900-9/2).

RESULTS

Table I represent the demographic data of the relapsed and first time substance abusers. Table II, III and IV presents the Kruskal-Wallis analysis of quality of life and tendency to aggression among relapsed and first time substance abusers by age, marital status and educational level. Table II shows that there was a statistically significant difference in aggression between individuals of different range of age, $X^2(3)= 10.038$, $p\text{-value}=0.018$ which indicates that the tendency of aggression of an individual is influenced by their age. Table III on the other hand shows that there is a statistically significant difference in quality of life between individuals of different marital status, $X^2(3)= 8.146$, $p\text{-value}=0.043$.

Table I: Demographic data

DEMOGRAPHIC	RELAPSED	FIRST TIMER	TOTAL
AGE			
18-29	144	48	192
30-39	105	30	135
40-49	60	9	69
>50	18	3	21
WEIGHT (kg)			
<50	49	11	60
51-60	150	33	183
61-70	95	33	128
>70	33	13	46
MARITAL STATUS			
Single	227	67	294
Married	55	15	70
Divorced	12	0	12
Widowed	33	8	41
EDUCATIONAL LEVEL			
No formal education	8	5	13
Primary school	40	13	53
Secondary school	253	69	322
Diploma	18	2	20
Degree	5	1	6
Master/PhD	3	0	3
DURATION IN CENTER			
<1 month	44	11	55
1-6 months	168	46	214
6 months - 1 year	80	13	93
>1 year	29	20	49
<2 years	6	90	6

Table II: Kruskal-Wallis test analysis of quality of life and tendency to aggression among relapsed and first time substance abusers by age

Variable	Age	Mean rank	p-value
QOL	18-29	214.15	0.235
	30-39	210.28	
	40-49	207.90	
	>50	157.26	
Aggression	18-29	190.80	0.018*
	30-39	221.78	
	40-49	220.06	
	>50	256.90	

Table III: Kruskal-Wallis test analysis of quality of life and tendency to aggression among relapsed and first time substance abusers by marital status

Variable	Marital status	Mean rank	p-value
QOL	Single	218.27	0.043*
	Married	200.43	
	Divorced	157.33	
	Widowed	172.26	
Aggression	Single	201.77	0.015*
	Married	238.88	
	Divorced	142.17	
	Widowed	229.40	

Table IV: Kruskal-Wallis test analysis of quality of life and tendency to aggression among relapsed and first time substance abusers by educational level

Variable	Educational level	Mean rank	p-value
QOL	No formal education	244.96	0.017*
	Primary school	222.33	
	Secondary school	210.58	
	Diploma	161.58	
	Degree	188.83	
Aggression	Master/PhD	4.33	0.208
	No formal education	199.42	
	Primary school	211.98	
	Secondary school	208.85	
	Diploma	172.20	
	Degree	268.17	
	Master/PhD	340.50	

There is also a statistically significant difference in aggression between individuals of different marital status, $X^2(3)= 110.481$, $p\text{-value}=0.015$. Table IV shows that there is a significant difference in the quality of life between individuals of different educational level, $X^2(5)= 13.836$, $p\text{-value}=0.017$ which shows that the quality of life of an individual is influenced by their educational level. The results from independent t-test in Table V shows no significant difference in the scores for quality of life (QOL) among relapsed ($M=3.68$, $SD=0.58$) and first timers ($M=3.72$, $SD=0.63$); $t(415)=-0.480$, $p\text{-value}=0.632$. There was also no significant difference in the scores for aggression among relapsed ($M=1.67$, $SD=0.22$) and first timers ($M=1.67$, $SD=0.22$); $t(415)=0.262$, $p\text{-value}=0.794$. Based on the results of the single linear regression in table VI, it is observed that

Table V: Independent t-test analysis among relapsed and first time substance abusers

		N	Mean	SD	t	df	p-value
QOL	Relapse	327	3.6847	0.5816	-0.480	415	0.632
	First time	90	3.7185	0.6328			
Aggression	Relapse	327	1.6735	0.2169	0.262	415	0.794
	First time	90	1.6667	0.2222			

N: number; SD: standard deviation; df: degree of freedom

Table VI: Regression test to predict relationship of quality of life and tendency to aggression among relapsed and first time substance abusers

	R Square	Sig.
Regression	0.006	0.106

there is no significant difference found ($p > 0.05$) which means that there is no relationship between quality of life and tendency to aggression among relapsed and first time substance abusers.

DISCUSSION

In the sociodemographic data, the total number of relapsed substance abusers were 327 and first time substance abusers were 90. The range of age with the highest percentage were aged between 18 and 29 years old, followed by age 30 to 39, aged 40 to 49 and 50 years old above in both relapsed and first time substance abusers. Studies showed that individuals aged between 25 and 29 years old are financially productive (19). Younger adults are mostly involved in substance abuse due to curiosity, rebellious against the social norms and also lack of knowledge (14, 20). This statements can further be justified by the results obtained from this research.

The tendency to aggression among relapsed and first time substance abusers is influenced by the different range of age. This statement can be supported by a study (21) which mentions that the level of aggression in an individual changes throughout their life span as the individual grows from a child to an adult where their maturity level develops. On the other hand, the marital status of an individual affects the quality of life and tendency to aggression among relapsed and first time substance abusers. Majority of the substance abusers were single individuals and research findings shows that single individual's abuses drug to seek for pleasure and that getting married actually lowers the likelihood of drug use (22). Married people have an improved mental health compared to those who are single (23). The quality of life among relapsed and first time substance abusers is influenced by different educational level. In this research, the highest percentage is the secondary school level which is when teenagers are easily influenced by their peers (24) and uses drugs as a coping mechanism against stress (20). Individuals with higher educational level are less likely to be exposed to risk factors of drug abuse like HIV (25).

In the independent t-test analysis, results showed no difference in the quality of life and tendency to aggression among relapsed and first time substance abusers. A study also justified that abusing substance does not affect the quality of life of an individual but their irresponsible behaviour are the ulterior motive to why they misused drugs (26). As for the regression test, it is observed that there is no association between the quality of life and tendency to aggression among relapsed and first time substance abusers. Both variables do not affect each other as they are independent and there could be other factors that may influence the quality of life or tendency to aggression.

For further improvements, the target population should be balanced for both first time abusers and relapsed abusers for better comparison in order to obtain a better measurement of quality of life and tendency to aggression by including more rehabilitation centres. Since limited variables were chosen in this study where it is proven that quality of life and tendency to aggression do not have an association with each other, more elements can be added to provide a more significant result.

CONCLUSION

Through this study, it was observed that there was no significant correlation found between the quality of life and tendency to aggression among relapsed and first time substance abusers ($p > 0.05$). Additionally, it was also indicated that quality of life and tendency to aggression does not have an association with each other ($p > 0.05$). Nevertheless, age and marital status was found to instigate the tendency to aggression in first time and relapsed substance abusers. The finding of this research can help authorities to have a better approach in combating drug related crimes and improve the effectiveness of programs that is conducted for the drug abusers within the centres.

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