

RELIGIOUS FACTOR COVARIATE ON SUBSTANCE ABUSE AMONG UNIVERSITY STUDENTS : A COMPARATIVE ANALYSIS BETWEEN GENDER

Khaidzir Hj. Ismail, Azizan Ahmad, Shaharuddin Ahmad

Dosen UKM

Abstract: *This research examines the issue of substance abuse among first year students of National University of Malaysia. A total of 1000 students aged 18 until 23 years old comprising 271 male and 729 female students were involved in the study. To measure the level of tendency to abusedrugs, SASSI-2(Substance Abuse Subtle Screening), a psychology measuring instrument was used, containing 8 scales which are Family friends risk, Attitude, symptom, Obvious attributes, subtle attributes, Defensiveness, Supplemental addiction measure dan Correctional. Meanwhile, religiosity instrument is used for the purpose of measuring the practice of religious duties. From the independent sample t-test and Multivariate Analysis of Variance (MANOVA) conducted, differences in the pattern of substance abuse among male and female students were identified. The result of multivariate analisis covariate test (MANCOVA) showed that religiosity can be a determining factor in the tendency of students to be involved in substance abuse.*

Keywords: *Substance abuse, university student, gender, SASSI-2, religiosity*

1. Introduction

The increase of moral-decadency related cases in Malaysia, especially among Muslims is certainly a cause of worry. To date, among the pressing issue is abuse of drugs. Abuse of drugs is a huge problem for the country. Every year, the number of addicts keep increasing whilst the existing statistics showing no sign of improving. Fast becoming a national agenda, the government is now putting their best effort to tackle the problem. Utmost concern is especially put on the risk of being infected by the Human Immunodeficiency Virus (HIV) and AIDS (Aquired Immune Deficiency Syndrome). The government all these years have utilized all its resources to work for the rehabilitation of drug addicts with the hope that they will realize their mistakes and change for the better (Ruzita binti Mokhtar, 2004).

In Malaysia, the issue of drugs abuse is not new. It has become a threat not only to individuals or families but also the country (Syed Amin 1995; Mahmood et al., 2005; Abdul Ghafar 1992; Ruslina 2004, Blau, 1994; Brown & Campbell, 1994). In western countries, abuse of drugs is a critical problem. The increasing statistics of drugs abuse year by year signals the need for serious, concerted effort to be taken by all parties. Another cause of worry is the involvement of students of higher learning institutions in drugs abuse cases as seen from the 2002 to July 2008 statistics. The involvement of the cream-of-the-society group increases the call for educational institutions to work hand-in-hand in looking for solutions to combat the problem. Among the most prominent solution is to increase the religiosity mental-cognitive level in all disciplines of study as a foundation

The term 'drugs' is commonly associated with medicines. Drugs is also a material, whether original or artificial that can modify the way our body and mind works. Drugs that originate from natural resources are those that were reproduced using plants, for example heroin which is a by-product of poppy flower. Heroin can also be artificially manufactured in laboratories as synthetic drugs. Synthetic drugs cause the same effects as original drugs (Dewan Bahasa Pustaka, 2000).

According to Webster's Third New International Dictionary, drugs is defined as 'something used in dying or chemical operation, or substance used as a medicine or in making medicines for internal or external use' (Webster 1969). Besides that, it is also defined as "*.....any chemical substances that alter mood, perception or consciousness and is abused, to the apparent detriment of society*" (Weaver 1970 in Mahmood Nazar Mohamed, 2005). The term abuse meanwhile, refers to the activity or action that violates the actual purpose of something. In this context, abuse of drugs is usually a label put on the action done by drug addicts. With the rising number of drug addicts in the country, an easy solution for the complex problem seems no longer available (Lindesmith 1968 in Abdullah Al-Hadi Haji Muhammad & Iran Herman, 1992).

Particularly in this study, the term 'drugs abuse' is understood as : students who are prone to abuse drugs will experience problematic relationship with other students, lecturers, peers and parents. Students who are prone to abusing drugs will also affect their health and well-being and/or affecting the health and well-being of other students, lecturers, peers and parents.

Given the strong empirical link between substance use and a variety of problems that adversely impact adolescent health (e.g., motor vehicle accidents, school problems, delinquency, violence), researchers have invested considerable effort in the identification of risk and protective factors for the use and abuse of alcohol, tobacco, and other drugs. Despite the fact that past research has found religion to be one of the most consistently replicated correlates of nonabuse, it is seldom acknowledged in the risk/protective factor research literature (Gorsuch, 1988). For example, an extensive review of key risk and protective factors, published by the federal Office of Substance Abuse Prevention (OSAP), listed over 100 specific risk and protective factors but omitted any reference to religion (Gopelrud, 1992).

Research that includes religion (e.g., attendance, salience, denomination) often treats it as a non-focal or “control” variable, as evidenced by the failure to discuss its relationship with substance use in either the abstract or the text of published articles—even when it has been found to be the most significant variable in the study (Gorsuch, 1988). Although there has been an increase in the amount of research on the relationship between religion and substance use in recent years (see Johnson et al., 2002, for a review), much of the literature that recognizes religion as an important correlate of substance use focuses on the “lack” of religion as a *risk factor* for increased use (e.g., Bry et al. 1982; Newcomb et al., 1987; Maddahian et al., 1988; Hawkins et al., 1992). Although researchers have used a variety of samples, research methods and measures of substance use and religiosity, the data generally suggest that young people who are more religiously inclined (e.g., attend religious services, say religion is important) are less prone to use drugs than their less religiously inclined counterparts (see Gorsuch, 1995 and

Johnson et al., 2002, for reviews). Accordingly rather than focusing on the lack of religion as a risk factor, the present study conceptualizes the presence of religion as a protective factor. Specifically, it is hypothesized that religion will 1) predict abstinence from substance abuse among youth, irrespective of their race, and 2) help to account for the consistent finding of race differences in substance use.

Research has indicated that the pathways leading to careers related to drugs abused differ for men and women. Relationship with men is related more significantly to the beginning of women's drug-using careers (Rosenbaum 1980). Women more often exit drug careers for family reasons than men. Meanwhile, Anderson (1998) discovered that gender socialization and stratification can partially explain the processes leading to drug abuse and termination from it. Using an identity-based approach, she found gender socialization to be a crucial explanation of the acquisition of drug-related identities. Anderson's findings support Henderson and Boyd's (1992) research with gender scripts and addiction; departure from masculine and feminine scripts early on accounted for early and troubling marginalization experiences. Gender deviations accounted for an important source of identity dissatisfaction. Moreover, experiences with sexual and physical abuse may play a fundamental role in the substance abuse process, especially for females, given the now substantial literature on this topic. It is currently difficult to ascertain the degree to which sexual and physical abuse plays a role in male drug abuse, since it is far less documented. However, correlates of female substance use include inappropriate sexual activity with an adult when they were children (e.g., child abuse), caretaker responsibilities for siblings and other relatives, rigid and regular domestic

responsibilities (e.g., cleaning the house, cooking for members, earning money to support family-see Anderson 1998), and early parenthood. Anderson and Bondi (1998) uncovered gender differences in terminating drug abuse or in exiting the drug addict role. Once again, these differences closely parallel cultural norms and socialization experiences regarding femininity and masculinity. Women's exit processes centered more on the personal and emotional aspects of drug-related experiences while men focused more on external and financial ones. Pilkington's (forthcoming) research on recreational cocaine use shows that men's and women's patterns of use differed and paralleled their social positions. Women were more likely than men to stop cocaine use if it hindered their work or family responsibilities. They also paid for the drug less often than men.

Studies on drugs abuse are not limited to medical and legal research but also socio-religious studies, especially from the perspective of psychology. Two levels are involved in this perspective, which are data collection using questionnaires with a psychometric psychology instrument and intervention programs. The medical perspective also involves two levels. The first level is laboratory testings – blood test or urine test while the second level is self report. (Winters et al., 2002).

Realizing religion as an important yardstick, this research enjoins religious factor with symptoms of drugs abuse. Plenty of research have been done to observe the connection between behaviours related to drugs abuse with religiosity. Findings of previous research display a similar trend - religion acts as an internal controlling-force crucial to avoid an individual from getting involved drugs abuse (Nik Mohd. Zaini, 1991. Paulo Dalgalarondi et al, 1998. Nazrul, 2000. Merri!! Ray M et all, 2001). Research done by Melissa S. S., Eric A. S., Gary R. G.,

Erin M. K. & Audrey L. B. (2004) meanwhile identified the relationship between religiosity and alcohol and drugs abuse. The impacts of religion on efforts to combat drugs and alcohol abuse are already documented. The National Center on Addiction and Substance Abuse at Columbia University – CASA (2001) has found that religion and spirituality possess huge potential in reducing the risk of drugs abuse among teenagers and adults, especially when combined with professional treatment for rehabilitation purpose (in Kasmini Kassim et.al, 2002).

2. Methode

This research used the SASSI-2 (*The Substance Abuse Subtle Screening Inventory*) psychometric designed by Dr. Glenn A. Miller (1997) to identify abuse of drugs. The SASSI-2 instrument consists of 72 items measuring 8 scales related to intake of drugs. Among the scales are:

- a. *Family-Friends Risk* is the concept of drug intake influenced by family and friends
- b. *Attitudes* is the concept in one's mind on the good or bad of taking drugs
- c. *Symptoms* is the cause or general matters relating to abuse of drugs
- d. *Obvious attributes* is the scale which shows the level of an individual's *impulsiveness, low tolerance for frustration and impatience* which lead to abuse of drugs
- e. *Subtle attributes* is a scale that is not directly related to intake of drugs. Psychologically, the scale measures an individual's internal attributes.

- f. *Defensiveness* means self-defence, and according to SASSI scale as the desire of an individual to recognize a problem and works his best to solve it
- g. *Supplemental addiction measure* is the scale that is used to predict whether a person possesses defensiveness traits or is tempted easily to take drugs
- h. *Correctional* is the scale designed to predict the potential of an individual to violate law in the future.

To measure religiosity level, an instrument designed by Asmahan Mokhtar (2008) was adapted to suit the research. The instrument was used to measure the level of religious practice and appreciation among teenagers according to their individual religious beliefs. The instrument contains 15 items. The research was done in National University of Malaysia using 1000 first-year undergraduate students of the 2009/2010 academic session as sample of study. The samples were chosen using random sampling and were still in their teenage years. Questionnaires were administered in residential colleges in stages. Data collected were analysed using descriptive statistics' quantitative and inferential approaches with the help of SPSS version 18 package.

3. Results

Table1. Difference in SASSI-2 Scale between male and female

Scale	Gender	N	Mean	S D	t	p
SASSI-2					df	
Family-Friends	Male	271	1.55	1.39	997	3.85 .000
					4	

Risk	Female	728	1.21	1.19		
Attitude	Male	271	2.15	1.66	997	2.004 .045
	Female	728	1.93	1.53		
Symptoms	Male	271	1.89	1.09	997	2.844 .005
	Female	728	1.68	1.07		
Obvious	Male	271	4.35	1.59	997	6.807 .000
Attributes	Female	728	3.67	1.32		
Subtle	Male	271	2.18	1.64	997	4.614 .000
Attributes	Female	728	1.69	1.44		
Defensiveness	Male	271	6.69	2.22	997	-2.688 .007
	Female	728	7.09	2.11		
Supplemental	Male	271	1.44	1.26	997	4.117 .000
Addiction	Female	728	1.11	1.11		
Correctional	Male	271	9.45	1.82	997	-2.303 .021
	Female	728	9.76	1.94		

p<0.05*

As shown in the table above, analysis using independent sample t-test shows that there are differences between male and female in all 8 scales of SASSI-2. At the *family friends risks* scale, $t=3.854$, $p<0.05$, it is recorded that male (mean=1.55 and SD=1.39) shows higher value compared to female (Mean=1.21 and SP=1.19) while for *Attitude* scale, $t=2.004$, $p<0.05$ male (mean=2.15 and SD=1.66) also records higher value than female (Mean=1.83 and SD=1.53).

The same trend is seen for scales *symptom* with $t=2.844$, $p<0.05$, male (mean=1.89 and SD=1.09) and female (Mean=1.68 and SD=1.07) and *Obvious attributes* $t=6.807$, $p<0.05$ male (mean=4.35 and SD=1.59) and female (Mean=3.67 and SD=1.32). For *subtle attributes* scale, the t value recorded is

$t=4.614$, $p<0.05$ with male (mean=2.18 and SD=1.64) higher than female (Mean=1.69 and SD=1.44) while *supplemental addiction* $t=4.117$, $p<0.05$ where male (mean=1.44 and SD=1.26) still overpowering female (Mean=1.11 and SD=1.11). A different pattern however can be seen on scales *Defensiveness* and *Correctional*. For *Defensiveness* scale, the t value recorded is $t=-2.688$, $p<0.05$ with male (mean=6.69 and SD=2.22) lower than female (Mean=7.09 and SD=2.11) while for *Correctional* scale, $t=2.303$, $p<0.05$ where male (mean=9.45 and SD=1.82) is also lower than female (Mean=9.76 and SD=1.94).

Table 2: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III SS	df	MS	F
Gender		23.094	1	23.094	14.851
	B. Attitude	9.879	1	9.879	4.017
	C. Symptoms	9.395	1	9.395	8.089
	D. Obvious Attributes	90.756	1	90.756	46.340
	E. Subtle Attributes	47.659	1	47.659	21.289
	F. Defensiveness	33.014	1	33.014	7.226

	G.	22.433	1	22.433	16.947	
	Supplemental					000
	Addiction					
	Measure					
	H.	19.246	1	19.246	5.305	
	Correctional					021
Error	Family-	1550.397	997	1.555		
	Friends Risk					
	Attitude	2452.057	997	2.459		
	Symptoms	1157.893	997	1.161		
	Obvious	1952.613	997	1.958		
	Attributes					
	Subtle	2231.981	997	2.239		
	Attributes					
	Defensiveness	4554.842	997	4.569		
	Supplemental	1319.719	997	1.324		
	Addiction					
	Measure					
	Correctional	3616.966	997	3.628		

A. $R^2 = .015$ (1.5%), B. $R^2 = .004$ (0.4%), C. $R^2 = .008$ (0.8%),

D. $R^2 = .044$ (4.4%), E. $R^2 = .021$ (2.1%), F. $R^2 = .007$ (0.7%),

G. $R^2 = .017$ (1.7%) Dan H. $R^2 = .005$ (0.5%) Dengan $P < 0.05$

$p < 0.05^*$

Using multivariate analysis of variance (MANOVA) as shown in table 2, it was determined that there was a significant

influence of gender on Family-Friends Risk, 1.5% ($R^2 = .015$ with $F_{(1,997)}=14.851$, $p<0.05$), Attitude, 0.4% ($R^2 = .004$ with $F_{(1,997)}= 4.017$, $p<0.05$), Symptoms, 0.8% ($R^2 = .008$ with $F_{(1,997)}= 8.089$, $p<0.05$), Obvious Attributes, 4.4% ($R^2 = .044$ with $F_{(1,997)}= 46.340$, $p<0.05$) and Subtle Attributes, 2.1% ($R^2 = .021$ with $F_{(1,997)}= 21.289$, $p<0.05$). Meanwhile Defensiveness scale records a value of 0.7% ($R^2 = .007$ with $F_{(1,997)}= 7.226$, $p<0.05$), Supplemental Addiction Measure, 1.7% ($R^2 = .017$ with $F_{(1,997)}= 16.947$, $p<0.05$) and Correctional, 0.5% ($R^2 = .005$ with $F_{(1,997)}= 5.305$, $p<0.05$). To further extend the analysis of Multivariate analysis of covariance (MANCOVA), a correlation test between religiosity and SASSI-2 sub-scales is needed.

Table 3. Relationship between religiosity and SASSI-2 scales

Dependent variable	Religiosity (Independent variable)	
	<i>r</i>	<i>p</i>
Family-Friends Risk	-.226**	.000
Attitude	-.116**	.001
Symptoms	-.160**	.000
Obvious Attributes	-.136**	.000
Subtle Attributes	-.266**	.000
Defensiveness	.271**	.000
Supplemental Addiction Measure	-.246**	.000
Correctional	.344**	.000

As shown in Table 3 above, using Pearson correlation, it can be seen that there is a significant relationship between religiosity factors as an independent variable with all 8 SASSI-2 measuring scales. It is identified that religiosity is negatively related significantly with *Family-Friends Risk* scale with r value of $r = -2.26$, *attitude* at $r = -.116$, *symptoms* at $r = -1.60$, *Obvious Attributes* at $r = -.136$, *Subtle Attributes* at $r = -.266$ and *Supplemental Addiction Measures* scale at $r = -.246$ with significance level of $k < 0.05$. The negative relationship implies that the higher religiosity level an individual possesses, the lower the risk of family influence (*Family-Friends Risk*), tendency in attitude to take drugs (*Attitudes*), general symptoms of drug intake (*Symptoms*), obvious behaviours to take drugs (*Obvious attributes*), internal negative drive (*Subtle attributes*) and ease of drug intake (*Supplemental addiction measure*).

It can also be seen from the above table that religiosity is also positively related significantly with *Defensiveness* scale with $r = 2.71$ and *Correctional* with $r = .344$. The positive relationship implies that the more religious an individual is, the more he is able to defend himself from being involved in drugs abuse (*Defensiveness*) and the higher the awareness he possesses on the rules and laws concerning drugs abuse (*Correctional*). The results of correlation test fulfill the conditions of MANCOVA test, that is to determine the influence of religious covariate on SASSI-2 sub-scale.

Table 4: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III SS	df	MS	F
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Religiosity	A.	69.955	1	69.955	47.064	
	Family- Friends Risk					000
	B.	12.670	1	12.670	5.173	
	Attitude					023
	C.	44.300	1	44.300	39.622	
	Symptom s					000
	D.	22.730	1	22.730	11.731	
	Obvious Attributes					001
	E. Subtle	138.200	1	138.200	65.741	
	Attributes					000
	F.	315.346	1	315.346	74.085	
	Defensive ness					000
	G.	70.312	1	70.312	56.052	
	Suppleme ntal Addiction Measure					000
	H.	412.537	1	412.537	128.22	
	Correctio nal				5	000
Gender	Family- Friends Risk	11.864	1	11.864	7.982	
	Attitude	6.505	1	6.505	2.656	
						103

	Symptoms	3.964	1	3.964	3.546	
	Obvious	75.132	1	75.132	38.775	060
	Attributes					000
	Subtle	24.884	1	24.884	11.837	
	Attributes					001
	Defensive	8.468	1	8.468	1.989	
	ness					159
	Suppleme	11.374	1	11.374	9.067	
	ntal					003
	Addiction					
	Measure					
	Correction	1.369	1	1.369	.426	
	al					514
Error	Family-	1480.443	99	1.486		
	Friends		6			
	Risk					
	Attitude	2439.387	99	2.449		
			6			
	Symptoms	1113.593	99	1.118		
			6			
	Obvious	1929.884	99	1.938		
	Attributes		6			
	Subtle	2093.781	99	2.102		
	Attributes		6			
	Defensive	4239.496	99	4.257		
	ness		6			
	Suppleme	1249.407	99	1.254		
	ntal		6			
	Addiction					
	Measure					

Correction 3204.429 99 3.217
al 6

A. $R^2 = .059$ (5.9%), B. $R^2 = .009$ (0.9%), C. $R^2 = .046$ (4.6%),
D. $R^2 = .056$ (5.6%), E. $R^2 = .082$ (8.2%), F. $R^2 = .076$ (7.6%),
G. $R^2 = .069$ (6.9%) Dan H. $R^2 = .119$ (11.9%) dengan $p < 0.05$

p < 0.05*

Using the multivariate analysis of covariance (MANCOVA) as shown in table 4, the gender multivariate test on SASSI-2 sub-scales with religious factor on SASSI-2 can be compared. Findings of the research show that religious factor increased the influence of *Family-Friends Risky* 5.9% ($R^2 = .059$ with $F_{(1,996)} = 47.064$, $p < 0.05$), *Attitude* by 0.9% ($R^2 = .009$ with $F_{(1,997)} = 5.173$, $p < 0.05$) and *Symptoms* by 4.6% ($R^2 = .046$ with $F_{(1,997)} = 39.622$, $p < 0.05$). The same trend is also seen on other scales. An improvement of 5.6% ($R^2 = .056$ with $F_{(1,997)} = 11.731$, $p < 0.05$) is seen on *Obvious Attributes*, 8.2% ($R^2 = .082$ with $F_{(1,997)} = 65.741$, $p < 0.05$) on *Subtle Attributes*, 7.6% ($R^2 = .076$ with $F_{(1,997)} = 74.085$, $p < 0.05$) on *Defensiveness*, 6.9% ($R^2 = .069$ with $F_{(1,997)} = 56.052$, $p < 0.05$) on *Supplemental Addiction Measure* and 11.9% ($R^2 = .119$ with $F_{(1,997)} = 128.225$, $p < 0.05$) on *Correctional scale*.

4. Discussion

Using the psychometric approach, the most interesting finding of the research as seen in Table 1 above is how the phenomenon measured using SASSI-2 was able to display religious factor as a covariate factor to SASSI-2 scale. This finding is in line with those found in previous research. Chitwood, Weiss and Leukefeld (2008) did a study on the

relationship between abuse of drugs and religion focusing on the theme *Organizational religiosity* (e.g., Benda et al., 2006; Bowie et al., 2006; Drumm et al., 2001; Wallace et al., 2003).

Religious coping refers to religious behaviors and activities that people engage in to cope with stress or difficult life situations. Examples of religious coping include praying to God for assistance or emotional support, reading scriptures for comfort, and discussing problems with ministers or chaplains. Religious coping was investigated in two articles (Bazargan, Sherkat, & Bazargan, 2004; Cecero & Fried, 2005). *Religious belief* is a cognitive dimension of religiosity. Twentytwo articles examined religious belief. At its most basic level, this dimension can be tapped with questions such as “do you believe in God?” (Sutherland & Shepherd, 2001) or “do you believe in life after death?” (Humphrey Taylor 2003). Several articles, however, measured religious belief in terms of adherence to and/ or respect for specific religious teachings, principles, and rituals. Some articles referred to this dimension as “fundamentalism” (e.g., Brown, Parks, Zimmerman, & Phillips, 2001; Galen & Rogers, 2004; Miller et al., 2001).

Religion is a crucial mental representative for an individual to counter all negative influences and elements in his or her surrounding. It is a supranatural controlling instrument that assists human in discriminating between good and evil. It is assumed that religious education conveyed to students were limited to intellectual intelligence and did not sink into shaping an individual's religious mental-cognitive (read : religion-based thinking style), which guides him in believing that a person of success is one whose acts and attitudes are those which please God. Materialism, which is the primary motivation for individuals today as a measure of success is the agent of

corrupted values among teenagers, far from what is aimed by the nation and religion itself.

Families with parents living hectic lives and having only limited time for their children's religious education is also among the prominent causes for the occurrence of drugs abuse problem. Offsprings brought up with sufficient material needs but thirsty of religious education often grow up with low self-control. Previous research have shown that working parents who neglect their children's religious education often end up having their children involved in gangsterism.

5. Conclusion and Recommendation

The most prominent discovery of SASSI-2 lies in the strength of the instrument in projecting the internal behaviour of teenagers which contribute the most to their tendency to involve in drugs abuse. This research is hoped to encourage religious education to be given more emphasis as the foundation in shaping attitudes and behaviours of youths, particularly teenagers as the youths are the future of a civilization. The research has significantly justified that the role of religious education in combatting the issue of drugs abuse should not be taken lightly.

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