ORIGINAL ARTICLE

ASSOCIATIONS BETWEEN PERSONALITY TRAITS AND AGGRESSION AMONG MALAY ADULT MALE INMATES IN MALAYSIA

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Abstract

Objective: A sizable body of criminology literature has suggested that personality factors are critical to the development of aggressive behaviour. While research on personality focusing on aggression often revolves on "Eynseck Three Factor Model" and "Big Five Model", research on "Alternative Five Factor Model" (AFFM) is rather inadequate. *Objective*: The present study aimed to examine the association between five types of personality traits and subscales of aggression. *Methods*: This observational cross-sectional study was conducted in two prisons in Peninsular Malaysia among 198 Malay adult male inmates. The participants were selected based on the purposive sampling method from those who were convicted for various types of crime. Two psychometric instruments adapted to the Malaysian context were used: Malay version of Zuckerman-Kuhlman Personality Questionnaire-40-Cross Culture (ZKPQ-M-40-CC) and Aggression Questionnaire (AQ-M). Pearson correlation coefficient test was conducted to determine the association between five types of personality traits and subscales of aggression. *Results*: The results showed that there was a significant association between certain types of personality traits and subscales of aggression. The results were discussed in relation to theory and the context of crime. *Conclusion*: There is evidence that personality traits are linked to aggressive behaviour which may lead a person to commit offenses. *ASEAN Journal of Psychiatry, Vol. 15 (2): July – December 2014: 176-185.*

Keywords: Aggression, Alternative Five Factor Model, Inmates, Personality Traits

Introduction

Human aggression and violence are perceived as major public health problems [1] capable of tearing the structure of communities and eroding the well-being of society. Many national and global researches on violence have evidenced the impact of violence, notably domestic violence and child abuse, on health and social indicators. Examples include a

study on the types of violence present worldwide [2], country-specific economic estimations of injuries due to interpersonal violence [3], and the impact of violence on low and middle income countries [4].

Violence which is perceived as a social mirror [5] is often addressed as the product of aggression [6-8]. In the context of social application, theories categorise violence as

individualized choice, a characteristic of social sub-groups, or a reaction against governmental legalisations of acceptable social conduct. However, Anderson and Bushman [8] claimed that although violence is described as aggression, in many instances it is not considered to be violent.

In social psychological terms, aggression is defined as a broad category of behaviour which intends to harm others using physical or verbal attacks [9]. While studies related to aggression are prolific, the underlying factors of aggressive behaviour have always been the long-standing interest among social scientists including criminologists. A study by Berkowitz [10] had noted that aggressive behaviour seems to be the outcome of frustration due to hindrances in goal attainment.

From a neurobiological perspective, aggression has been linked with high levels of testosterone and low levels of certain neurotransmitters such as serotonin [11]. Aggression has also been linked to genetics [12-13] and social learning [14-15]. However, it was argued that there is no single factor credible enough to determine the root of aggression [16].

Though aggression has been said to be multi-determined [1], personality aspects are known to be more useful in predicting offensive behaviour since it is relatively stable, which can guide [17] and provide explanations [18] for the behavior of a particular person. Along this line of thought, Ferguson et al. [19] evidenced that personality factors are more critical than environmental factors in developing aggressive traits in an individual. Other researchers for example Ramírez and Andreu [20], Bettencourt et al. [21], and Cuomo et al. [22] have provided more support for this assertion.

Within the framework of "Eynseck Three Factor Model", aggression was found to be the trait of the psychoticism factor [23-25]. A direct significant relationship was established between neuroticism and aggression [26]. Similarly, a research by Ferguson et al. [19] displayed aggressiveness as the common trait among males with a neurotic personality, marked by worry and pessimism. Wiebe [27]

found that the personality traits of agreeableness and conscientiousness in the "Big Five" were found to be predictive of criminal and aggressive behaviour.

While studies on aggression based on personality models such as "Big Five" [28-29] and "Eynseck Three Factor Personality Model" [30] have become subjects for scientific research, little is known about the "Alternative Five Factor Model" (AFFM) [31] in identifying aggression among test takers. Therefore, the present study focuses on the Zuckerman personality traits which were formulated to measure the dimensions that constitute the AFFM.

A few modifications were made to the AFFM compared to "Big Five" in which agreeableness was replaced with aggression, and impulsive sensation seeking replaced conscientiousness [32]. In addition, the broad dimension of extraversion in "Big Five" was further classified into two separate domains: activity and sociability [33], since activity level deserves a distinctive assessment as a major trait. Moreover, the distinction between hostility and anxiety also played vital roles in the modification because both traits are said to have different psychobiological ground [34] and should not be confined under a single domain as can be seen in the domain of neuroticism in the "Big Five" [32].

The above rationales indicate that there is a need to address the usage of AFFM as an alternative measurement to the "Big Five" and "Eynseck Three Factor Model" to predict the association with aggression. Another added value of this study is that it focused on inmates since problems with aggression are prevalent among forensic populations [1]. Determining personality traits underlying aggression are perceived to be of higher significance among criminals rather than among members of the normal population. This is because high aggression levels among members of the normal population may not be indicative of criminality. However, among criminals high aggression levels may be indicative of aggressive personalities.

Therefore this present study aims to examine the associations between five types of personality traits and subscales of aggression

among the male inmates. The findings of this present study add to the existing body of knowledge in Malaysian criminology.

Methods

Study Design and Participants

The present study utilised an observational cross-sectional study design for data collection. The source population was the adult male inmates incarcerated in two prisons within Peninsular Malaysia. A series of selection criteria were fixed by the researcher prior to the recruitment of participants. The inclusion criteria were males aged 19 years and above, Malaysian citizen, and voluntarily consented to this study. Inmates who were mentally unfit and unable to read and understand the Malay language were excluded from this present study.

Due to access restraints, the level of risk and dangerousness of this vulnerable group, the selection of participants were made by the prison authorities based on the predetermined selection criteria set by the researchers. Therefore, the recruitment of the participants in this study was based on the purposive sampling method. This type of sampling method was also to assure the safety of the researchers and prevent any possible opportunities to escape and perpetrate violence by the inmates. After considering the adequate sample size, the present study recruited 198 adult male inmates.

Data Collection Procedures

Guided self-administered Malay language versions of the Zuckerman-Kuhlman Personality Questionnaire-40-Cross Culture (ZKPQ-M-40-CC) and Aggression Questionnaire (AQ-M) were used. Proper instructions were given verbally and in writing to the participants. Participants were allowed to retract their involvement at any time during the collection of data. They were also assured of secrecy and anonymity of their responses in order to maintain the honesty and validity of their responses.

Written and signed consent was obtained from the participants prior to their recruitment in this study. The participation was on a voluntary basis and the participants were also informed regarding the disposal of the given information at the end of this study. The questionnaires were administered in a group format and monitored by prison officers to ensure safety of both researchers and participants. The total completion time of both questionnaires averaged between 20 to 30 minutes for each respondent.

Measures

Section One: This section gathered sociodemographic information of the respondents which included age, marital status, occupation, and educational status. Additional information about alcohol and drug abuse history were collected as well.

Section Two: This instrument was the simplified original version of ZKPQ-50-CC which consisted of 50 items [35] to measure AFFM personality traits. However, only 40 items were included in the Malay version of ZKPQ as the outcome of the validation study. The ZKPQ-M-40-CC assessed five types of personality traits: Activity (Act), Sociability (Sy), Aggressiveness-Hostility (Agg-Host), Impulsive Sensation Seeking (ImpSS), and Neuroticism-Anxiety (N-Anx). The overall internal consistency of ZKPQ-M-40-CC was 0.75 [36]. Items were answered on a five–point Likert-type scale ranging from 1 (not at all like me) to 5 (completely like me).

Section Three: This section contained all items of Buss and Perry's [37] AQ. The AQ has been acknowledged as a definitive screening instrument for aggressiveness [38]. This instrument contains 29 items which measure four scales of aggression namely physical aggression, verbal aggression, anger, and hostility. Items were answered on a five–point Likert-type scale ranging from 1 (not at all like me) to 5 (completely like me). In AQ-M, nine items indicate physical aggression, whereas five items were designed to indicate verbal aggression. Seven items represent anger and eight items represent hostility. The internal consistency of AQ-M for the Malaysian criminal population was 0.80 [39].

Analysis

Data were organised, entered, and analyzed

using Statistical Package for Social Sciences (SPSS) version 20.0. Descriptive statistics were employed to summarise the sociodemographic information of the respondents. A bivariate analysis of correlation was performed to determine the associations between variables. Since data were normally distributed, the Pearson correlation coefficient test was performed to determine the correlations among the subscales of the variables.

The Pearson correlation coefficient measures the strength of linear dependence between two variables, in this instance personality traits and types of aggression. Rodgers and Nicewander [40] offered guidelines for the interpretation of a correlation coefficient depending on the context and purposes. In general for social science purposes, correlations between -0.09 to 0.0 and 0.0 to 0.09 denotes no correlation, -0.3 to -0.1 and 0.1 to 0.3 denotes small

correlation, -0.5 to -0.3 and 0.3 to 0.5 denotes medium correlation, and finally -1.0 to -0.5 and 0.5 to 1.0 denotes strong correlation [40].

Results

Sociodemographic Information

Sociodemographic information of the respondents was collected and presented in the form of descriptive statistics. Table 1 below provides a summary of sociodemographic information of the respondents. Incidentally, all the participants in this study happened to be Malay adult inmates. The participant's age ranged between 19 and 51 years old with a mean age of 27.18 years (SD = 8.12). Regarding marital status, the majority of respondents were single (66.7%). This was followed by married respondents (20.2%) and 5% of them were divorced.

Table 1. Summary of demographic information of the respondents (n = 198)

Demographic information	Frequency	%
Marital status		
Single	132	66.7
Married	40	20.2
Divorcee	10	5.0
Widower	16	8.1
Highest education level		
Never been to school	6	3.0
Primary	6	3.0
Lower secondary (Form 1-Form 3)	72	36.4
Upper secondary (Form 4-Form 5)	96	48.5
Pre-Univeristy/ Matriculation	8	4.0
Diploma/ Degree	10	5.1
Occupation prior to conviction		
Unemployed	30	15.2
Self employed	70	35.4
Semiskilled-unskilled	64	32.2
Clerical	20	10.1
Professionals/Managers	14	7.1
Alcohol-drug abuse history		
No alcohol or drug consumed	34	17.2
Alcohol consumption only	8	4.0
Drug consumption only	94	47.5
Both alcohol and drug consumption	58	29.3
Intoxicating substance consumption	4	2.0

As to the highest level of education, 48.5% of the participants achieved upper secondary education. A small percentage of respondents had diplomas or degrees (5.1%). 3% of the respondents had primary education and another 3% of the respondents never went to

school. Prior to conviction, most of the respondents were self-employed (35.4%) and 32.2% of the respondents had worked in unskilled or semiskilled professions such as security guards, general labourers, drivers, and odd job workers. In addition, information on

alcohol-drug abuse history was obtained from the respondents. 47.5% of the respondents had a history of drug misuse. 29.3% of participants admitted to consuming both drugs and alcohol. Meanwhile, four participants admitted consuming and sniffing intoxicating substances such as *'Kuda'* pills and 'inhalants'.

Bivariate Analysis

The associations between the five personality traits and four aggression traits were established using a Pearson correlation coefficient test. The correlation matrix for the subscales of both measures is presented in Table 2. The result showed that ImpSS showed a significant positive relationship with all the subscales of aggression. The personality traits of Agg-Host and N-Anx showed a significant positive association with all the subcales of aggression except for verbal aggression.

Table 2. Correlation between the subscales of aggression with overall self control

	r^a (p-value)			
	Verbal aggression	**Anger**	**Hostility**	**Physical aggression**
Activity	0.24 (0.018)*	0.07 (0.498)	0.10 (0.316)	-0.06 (0.540)
Aggressive-Hostility	0.03 (0.801)	0.55 (0.001)**	0.40 (0.001)**	0.59 (0.001)**
Sociability	0.13 (0.240)	-0.15 (0.145)	-0.23 (0.025)*	-0.14 (0.171)
Impulsive Sensation Seeking	0.21 (0.038)*	0.33 (0.001)**	0.30 (0.003)*	0.35 (0.001)**
Neuroticism-Anxiety	0.04 (0.683)	0.30 (0.002)*	0.41 (0.001)**	0.20 (0.048)*

[a]Pearson correlation coefficient; * Correlation is significant at 0.05 level (2-tailed); ** Correlation is significant at 0.001 level (2-tailed)

The personality trait Aggressive-Hostility was significantly correlated with anger, hostility and physical aggression in the sample of Malaysian inmates at the 0.01 level. The personality trait Impulsive Sensation Seeking was significantly correlated with anger and physical aggression at the 0.01 level and verbal aggression and hostility at the 0.05 level. The personality trait Neuroticsm-Anxiety was significantly correlated with hostility at the 0.01 levels and anger and physical aggression at the 0.05 level.

The highest value of correlation coefficient was observed in the subscale Agg-Host with subscale physical aggression (r = 0.59, p < 0.001) with 95% confidence interval (CI): 0.49, 0.67. This was followed by subscale Agg-Host and Anger (r = 0.55; CI: 0.44, 0.64; p < 0.001). It is worth noting that the subscale Activity was found to be not statistically correlated with any of the aggression traits, except for verbal aggression. The subscale Sociability seemed to be inversely correlated with the subscale hostility.

Discussion

Aggression and violence detrimentally affects daily life routines and it is viewed as one of the most perplexing global problem. A number of factors including personality traits are identified as underlying factors for aggressive behaviour. Along this line of thought, the present study was carried out to explore the associations between AFFM personality traits and aggression subscales among male inmates in Malaysia.

As displayed in Table 2, Sociability was negatively correlated with the subscale hostility. According to Zukerman et al. [31], individuals who are sociable are characterized as socially active and have a preference to be with a circle of friends as opposed to self-isolation. Social withdrawal which is described as the absence of sociability [41] is often perceived as a predictor of hostility. Indeed, there are strong parallels between hostility and sociability and behaviour patterns of aggression i.e. hostility and social withdrawal [42].

It is important to note that the personality trait ImpSS seemed to be positively significant with all the subscales of aggression. This is consistent with previous findings as impulsivity is related to a wide range of troubles [43] such as childhood conduct problems and prediction of adult criminality

[44], aggressive behaviour [45], and non-psychopathic murder [46]. As expected, Agg-Host showed highest correlation value with physical aggression and anger subscales. This is in agreement with the theoretical perspective of AFFM in which individuals with Agg-Host are described as physically aggressive, rude, thoughtless and have a quick temper with other wide range of aggressive behaviour [31].

The personality traits Agg-Host and N-Anx showed significant positive correlation with all the subscales of aggression except for verbal aggression. These results are congruent with previous studies. Sharpe and Desai [47] for example, found that the personality traits agreeableness and neuroticism were predictors of aggression. Hellmuth and McNulty [48] indicated that neuroticism may predispose partners to increased risk of intimate partner violence.

Verbal aggression which includes shouting, threatening, and insulting others [49] were found to be insignificant with Agg-Host and N-Anx personality traits. This result was in accordance with a previous study by Sharpe and Desai [47] in which the personality trait neuroticism was more highly related to anger and hostility than physical and verbal aggression. However, Fechter and Snell [50] evidenced that neurotic personality traits were found to be correlated with verbal aggression. Getachew and Sintayehu [51] also found that high scores on neuroticism positively predicted verbal aggression. Nevertheless, based on the results, it can be concluded that relationships were determined between specific personality traits and types of aggression. In other words, the results herein suggested that personality traits were related to the type of aggression portrayed by an individual. Inmates with personality traits of aggressive-hostility, impulsive sensation seeking and or neuroticism-anxiety are likely to exhibit one or more types of aggression. As far as we know, the present study is the first one in Malaysia that focused on the AFFM personality traits and aggression of male inmates.

As mentioned earlier, criminological studies using AFFM seem to be very little. As such, the present study which focused on AFFM and relating it to aggressive behaviour adds to the criminology literature. This current study provides some evidence that AFFM can be used as an alternative screening tool to the "Big Five Model" and "Eynseck Three Factor Model" to predict aggressive behaviours among the test takers since dimensions in AFFM suggested potential associations with types of aggressive behaviour.

Furthermore, in addressing crime prevention in terms of reducing crime opportunities, it appears that there are specific personality traits that require early attention. The findings herein agree with several previous researches. In this study, it is recommended that early signs of Agg-Host, ImpSS and N-Anx should be detected among people with high risk of criminal involvement. This is to enable proactive intervention and reduce their exposure to risky activities that may trigger behaviours that grievously harm others.

Conclusion

In conclusion, this study achieved its aims by examining the associations between five types of personality traits with subscales of aggression. The results of this study provided some evidence that AFFM may be a viable alternative to other models. The analyses revealed significant relationships between certain personality traits and subscales of aggression, suggesting the role of personality in increasing the likelihood of aggressive behaviour among the Malaysian male inmates.

Limitations and Recommendations

The present study had several limitations. Since the participants of this study were limited to only two prisons in Peninsular Malaysia, the results cannot be generalised to the overall population of inmates. As for future direction, it is necessary to conduct studies focusing on several prisons which may yield a better result to infer the whole forensic population. In addition, a comparative study is essential to compare the relationships between AFFM personality traits and aggressive behaviour among different types of offenders. This should be done in order to obtain a clearer picture on the role of AFFM personality traits in shaping aggressive behaviours among different types of offenders

such as sexual, violent, and property crime offenders.

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Conflict of interest

There is no conflict of interest in this study.

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