

ANTISOCIAL BEHAVIOUR AMONG MALAYSIAN ADOLESCENTS

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## APPROVAL FORM

This research paper attached hereto, entitled “Antisocial behaviour among Malaysian adolescents” prepared and submitted by “T’ng Soo Ting” in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

\_\_\_\_\_

Supervisor

Ms Low Sew Kim

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## ABSTRACT

There was an alarming increase of violent crimes among juveniles within these few years in Malaysia that jeopardized the healthy development of the future generation. Hence, this study was aimed to examine the demographic variables (age, sex, racial, and religious groups) in antisocial behaviour among Malaysian adolescents. Survey method with stratified random sampling was implemented in this study by controlling three variables that consisted of age, sex and racial groups, but not religious groups. In this research population, participants ( $N=120$ ) were students from three secondary schools: Sekolah Menengah Jenis Kebangsaan Krian, Sekolah Menengah Kebangsaan Methodist, and Sekolah Menengah Kebangsaan Panglima Bukit Gantang. The result revealed that there was a significant difference between sex and antisocial behaviour,  $t(114) = 3.563$ ,  $p < 0.05$ . Male participants ( $M=12.652$ ,  $SD=6.067$ ) showed higher tendency in antisocial behaviour compared to female participants ( $M=9.255$ ,  $SD=3.884$ ). Nevertheless, there was no significant correlation of age in antisocial behaviour and no significant difference of racial groups or religious groups in antisocial behaviour. Importantly, sex differences served as the fundamental pathway for future researches to investigate in depth and to establish effective intervention programs.

## DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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## LIST OF ABBREVIATIONS

ASPD	Antisocial Personality Disorder
FYP	Final Year Project
IAD	Instrumental antisocial decision-making
ICCs	Intra Class Correlations (ICCs)
Km	Kilometer
PCL-R	Psychopathy Checklist- Revised
PCL: YV	Psychopathy Checklist Revised: Youth Version
SMJK Krian	Sekolah Menengah Jenis Kebangsaan Krian
SMK Methodist	Sekolah Menengah Kebangsaan Methodist
SMK Panglima Bukit Gantang	Sekolah Menengah Kebangsaan Panglima Bukit Gantang
SPSS	Statistical Package for Social Science
STI	Sexual Transmitted Infections
UTAR	Universiti Tunku Abdul Rahman

## CHAPTER I

### INTRODUCTION

Gangsterism case that happened recently at Rawang, Selangor was perpetrated by students of Sekolah Menengah Kebangsaan Seri Garing. They belonged to secret societies known as 08, 21, and 36. Moreover, they were alleged in committing in several criminal activities such as taking and peddling drugs, alcoholism, extortion and rape (Harinderan, 2010). In another case, there were two teenagers (aged 14 and 16) charged with murdering 14 years old girl, Siti Mazni Abdul Rahman, whose body was found hidden under a pile of oil palm left in the plantation at Batu Pahat, Johor Bharu (Hammim, 2010).

According to the above mentioned burning issues, antisocial behaviour among adolescents was usually perceived by society as malignant and destructive behaviour, which crippled the strength of the system, economy, culture and society of a nation. Individual that involved in antisocial behaviour performed rape, kidnap, robbery, drugs and substances abuse, possessing weapons, vandalism and more. Antisocial behaviour among adolescents was predicted to bring detrimental impacts to the sustenance of future generation in leading the country development. Thus, this study aims to examine the different demographic variables such as age, sex, racial and religious differences in antisocial behaviour among Malaysian adolescents.

#### *Context of Study*

Antisocial behaviour is referred as the indifference attitude towards other people which violate the rights of one's human being (Alloy, Riskind, & Manos, 2005). Antisocial Personality Disorder (ASPD) is emerged when there is a chronic pattern of irresponsible behaviour with little or no concern for the rights of others, society norms, law and conscience (Canada Mental Health Association, 2006). Furthermore, American Psychiatric Association

(2000) stated that people with ASPD performed pervasive pattern of disregard and violation of the rights of others which occurred since age of 15 but being diagnosed only the age of 18.

The question emerged whether ASPD was separated from psychopathy or whether psychopathy merely explained the severe type of ASPD. Psychopathy had conventionally been viewed as personality disorder. It covered the interpersonal, affective, and impulsive personality domains of psychopathy, but emphasized on criminal behaviours (Coid, & Ullrich, 2009). There was no denying, antisocial behaviour was often related to criminal behaviour, and it generated the issue of the relationship between abnormal behaviour and crime (Alloy, Riskind, & Manos, 2005).

In Malaysia, statistics revealed that there were 14,691 juveniles who were arrested as the result of committing in different offences from year 2002-2004. In other words, average of 420 cases per month and 14 cases per day. In addition, there was an increase of juvenile cases from 5,114 cases in 2007 to 6,048 juvenile cases in 2009. This accounts for an average of 497 cases per month and 16 cases per day. Offences that related to property losses were ranked the highest with 6,234 cases or 63%. It included house breaking, theft of motor vehicle, snatch theft, dealing in stolen property and more (Hussin, n.d.).

Thus, this context of study also focused on the aspect of age, sex, racial and religious differences in antisocial behaviour among adolescents. A study by Chauhan, and Reppucci (2009) described that older adolescents were less likely to engage in violent acts which explained that adolescents “grow out” of antisocial behaviour. However, older American Black girls showed significant positive relationship to delinquency behaviours. It could be explained when criminal activities served as the means for their financial support.

Moreover, significant result between age and antisocial behaviour among adolescents could be explained through social neuroscience perspective. It was because the changes of dopaminergic activity during puberty increased the level of sensation seeking which led to

risk-taking behaviours. Thus, the biological changes increased the vulnerability to risky and reckless behaviours from age 10 until the peak of mid-adolescence and declined thereafter (Steinberg, 2008).

In addition, Baker (2006) explained that boys were more likely than girls to manifest the disturbance of delinquency. Nevertheless, there was a marked increase of girls' involvement in delinquency. Boys were more likely to perform their antisocial behaviour overtly while girls performed more covertly (Gorman-Smith, & Loeber, 2005). Girls exhibited relational aggression as a form of covert type of antisocial behaviour that rarely existed in males. These behaviours consisted of lying, cheating, manipulating others, showing hostility and suspiciousness (Ostrov, & Houston, 2008).

Furthermore, the relationship between psychopath and racial or ethnics differences showed that the mean total score for non-Caucasians was almost three points higher ( $M=26.07$ ,  $SD=8.30$ ,  $n=479$ ) than Caucasians ( $M=23.38$ ,  $SD=7.17$ ,  $n=931$ ). Nevertheless, they were still categorized under medium scoring group (score of 20-30) (Forth, Kosson, & Hare, 2003). However, another study by Walker-Banes, and Mason (2001) reported that there was a negative association for American Black adolescents compared to positive association for American White adolescents in antisocial behaviour. The discrepancy was possibly due to the dissimilarity of the attribution of affective meaning on their parental controlling behaviour. American Black adolescents were more likely to describe the parental behavior with more positive traits such as caring and supportive (Zimmer-Gembeck, & Helfand, 2007).

For religious aspect, a study by Herrenkohl, Tajima, Whitney, and Huang (2005) described that involving in religious institution and perceiving religion as important domains did reduce the chance of violence and delinquency. This was due to the fact that religious institution served as the place for adolescents to receive social support. But, the most

fundamental was the positive messages that received for resolving issues positively. Another study conducted by Prison Department of Malaysia found that religious knowledge could be the protective factor from juvenile misconduct. In this study, 80% of the juveniles had a poor religious knowledge, whereas 18% had secondary level religious education and only 2% had tertiary level religious education. Hence, religious education improved healthy personality development in adolescents (as cited in Kassim, n.d.).

### *Research Problem*

There is an alarming increase of violent crimes among juveniles within these few years in Malaysia. The crimes included cases of rape, molest, armed robbery and murder which triggered the alarm bells that led to public's fear of crime. However, the cases that were reported maybe the tip of the iceberg as there were many cases still not reported or turned a blind eye by school and parents (Letchumanan , 2010).

Adolescents nowadays are obsessed in pursuing material gains which led to a rift in family bond and spiritual ties among family members. Thus, some individuals suffered from emptiness in life which attributed to severe and detrimental social problems (Letchumanan , 2010).

Therefore, the rise in the juvenile delinquencies is an issue that must not be ignored as it jeopardized the healthy development of the future generation. Hence, identification of the research problems served the important pathway to investigate the issue in adolescents nowadays.

### *Significance of Study*

Since antisocial behaviour is common among adolescents from different age, sex, racial and religious, it is especially relevant to conduct investigations into these few aspects that linked to antisocial behaviour development in Malaysia cultural context.

First, the study aimed to reveal the connection between age differences and antisocial behaviour. It is worth to examine the age onset which is increasingly significant especially for parents and educators to monitor adolescents' problematic behaviour.

Second, it gives an idea to understand about the relationship between sex differences and antisocial behaviour. Thus, it allows better future assessment for those at-risk male and female adolescents who exhibiting antisocial behaviour.

Third, this research study also investigates the relationship between racial differences and antisocial behaviour. It is significant to understand how adolescents from different racial background behave in an antisocial manner.

Lastly, this study will give an idea about the connection between religious differences and antisocial behaviour. It is worthwhile to examine and understand the religiosity influences on behavioural and emotional development. Significantly, this research study provides information for government, educators and parents to gain more understanding about antisocial behaviour in adolescents.

#### *Purpose of study*

This study aims to unravel the demographic variables such as age, sex, racial and religious differences in antisocial behaviour among Malaysian adolescents. In addition, this research study received the great impetus when there were only few studies been carried out to examine adolescents' antisocial behaviour in Malaysia or Asia context. Hence, this research provided an essential tool for future research to establish and enlarge the picture of how antisocial behavior was initiated and maintained by generating a more complete perspective.



### *Research Questions*

The specific research questions of this study had been displayed as follow:

- (i) Is there any significant correlation between age of adolescents and antisocial behaviour?
- (ii) Do male adolescents have higher tendency to involve in antisocial behaviour than female adolescents?
- (iii) Which racial group has more antisocial behaviour tendency?
- (iv) Which religious group shows higher possible involvement in antisocial behaviour?

### *Definitions and Key Concepts*

*Antisocial behaviour.* Several factors such as context, location, community tolerance and quality of life expectations shaped people's understanding about antisocial behaviour (Nixon, Blandy, Hunter, & Reeve, 2003). Therefore, different people might either perceive the same behavior as acceptable or unacceptable. The Crime and Disorder Act (1998) defined it as: "Acting in a manner that caused or was likely to cause harassment, alarm or distress to one or more persons not of the same household as (the defendant)." (p. 3) (as cited in Research, Development and Statistics Directorate, 2004).

However, there is another approach drew up a list of antisocial behaviours that cause specific problems within the locality (see Appendix S, p. 92). Practitioners might find it beneficial to adopt this approach through the practical framework and guidance. It consisted of four core areas such as misuse of public space, disregard for community or personal well-being, acts directed at people and environmental damage (Research, Development, and Statistics Directorate, 2004).

*Antisocial Personality Disorder (ASPD).* ASPD is the indifferent an attitude toward other people that violated the rights of others in a chronic pattern. According to

American Psychiatric Association (2000), the criteria for ASPD diagnosis could be summarized in five basic points which consisted of (1) socially disapproved activity beginning the age of 15 and continuing into adulthood, (2) failure to show constancy and responsibility in work, sexual relationships, parenthood or financial obligations, (3) irritability and aggressiveness, (4) reckless and impulsive behaviour, and (5) disregard for the truth.

*Psychopathy.* It is a disorder that similar to ASPD which include affective, interpersonal and behavioural characteristics. Some of the traits of a psychopath consist of lack of empathy or guilt, manipulative, lack of depth of emotion and persistent violation of social norms (Hare, 1993). These traits seem similar to the diagnosis of ASPD. However, Hare (1996) proposed that most psychopaths met the criteria for ASPD, but majority with ASPD were not psychopaths (as cited in Everett, 2006).

*Adolescent.* Individual encounters the developmental period of transition from childhood to adulthood. It involves biological, cognitive, and socioemotional changes. Adolescence begins at around 10-13 years old and ends in the late teens. Early adolescence period emerges roughly during junior high school years and experiences pubertal change. Late adolescence period appears approximately to the latter half of the second decade of life (Santrock, 2010).

*Age.* The term “age” refers to chronological age which explained the number of years that people lived (Dictionary.com, 2011). Adolescents in this study ranged from the aged of 13-18 years old.

*Sex.* The term “sex” refers to biological characteristics that distinguish humans as female or male. Whereby, gender refers to the economic, social and cultural attributes and chances which connect with being male or female at a specific point in time. It classified

human to be masculinity or femininity (World Health Organization, 2011). Thus, the term “sex” is most appropriate to be used in this study.

*Race.* It refers to all humans belonging to the species of *Homo sapiens*, biological differences of human due to interactions between hereditary factors and environmental factors and the non-existence of homogenous population. Genetic component of a population was subject to change as a result of diverse factors, history of migration in the past prevented the used of domination of certain geographical area to serve as basis for race and no national, religious, linguistic, cultural group or economic class that constitutes a race (American Association of Physical Anthropologists, 1996). The examples of dominant racial groups in this study consisted of Malay, Chinese, and Indian.

*Religion.* There are no accurate interpretations of specific definitions of religion. However, in this study the definitions of religion consists of a (1) strong belief in a supernatural power which controlled human destiny, (2) an institution that expressed belief in a divine power, (3) belief that concerning the supernatural, sacred or divine, and the religious practices and institutions connected with the belief, and (4) gave the sum total of answers about the humankind’s relationship with universe (All about religion, 2011). The examples of religious groups in this study are Islam, Buddhism, Hinduism, Taoism, and Christianity.

## CHAPTER II

### LITERATURE REVIEW

#### *Age and Antisocial Behaviour*

Pardini, Fite, and Burke (2007) revealed that during the transition from late childhood to the early teenage years, parents reduced their reinforcement on their misbehaved children. It was shown that parents provided positive reinforcement for their children who displaying misbehaviour before age of nine with the expectation of prosocial behaviour change. However, during early adolescence parental reinforcement had decreased due to the increased level of behavioural problems. Subsequently, in middle and late adolescence period, parental reinforcement was no longer affected by the children behavioural problems. It is possibly because adolescent are increasingly being embarrassed by the expressions of parental affection. No doubt, the level of parental reinforcement in different period determined the level of children behavioural problems.

Moreover, another study from Zimmer-Gembeck, and Helfand (2007) drew an analogy between sexual behaviour and antisocial behaviour that linked to age onset. Individual who initiated sexual intercourse during early adolescence were being expected to have tremendous history of behavioural problems compared to those in mid-adolescence. It was because later onset of sexual behaviour connected to less alcohol use and delinquency, better parental monitoring, less involvement in dating, and less permissive attitudes.

Finally, Chauhan, and Reppucci (2009) reported that age directly influenced antisocial behaviour was partially supported. It could be seen in which older girls were less likely to engage in violent behaviours which suggested the adolescents “grow out” of antisocial behaviour. On the other hand, this study had shown that there was a positive relationship between age and delinquency behaviour among American Black girls. Older American Black girls engaged in delinquency behaviours such as selling drugs, breaking and entering, auto

theft and prostitution. It was indicated that delinquency behaviours serve as the mean for their financial support.

### *Sex and Antisocial Behaviour*

In the study of sex and antisocial behaviour, Willoughby, Kupersmidt, and Bryant (2001) proposed that there were two types of antisocial behaviour: overt and covert form. Overt behaviour involved certain form of direct confrontation with victim whereas covert behaviour explicitly avoided it. Nevertheless, both overt and covert behaviours showed the potential to harm or damage to victim or property.

There was an argument saying that females might exhibit different form of antisocial behaviours than males which suggest that the level of sex differences were smaller than the previously proposed (Willoughby, Kupersmidt, & Bryant, 2001). In addition, this finding was also consistent with the study by Gorman-Smith, and Loeber (2005) which explained that boys were more anti-social overtly and girls were more anti-social covertly. Then, Baker (2006) described that boys were more likely than girls to manifest the disturbance of delinquency behaviour, but there was a marked increase for the proportion of girls affected. In addition, research that focused on sex differences in antisocial behaviour without including covert form had been challenged (Schoot, Velden, Boom, & Brugman, 2009). It was indicated that sex differences in delinquency had been narrowed in recent years. Thus, those earlier studies findings were being supported by the late studies.

Proactive relational aggression was more relevant for female than male which provided insight on the relational forms of aggression and antisocial behaviour. It was consistently indicated when relational aggression was highly connected with psychopathic features for female more than male (Miller, & Lynam, 2003). Then, this finding was supported by Ostrov, and Houston (2008) who suggested that proactive relational aggression and impulsive antisocial behaviours were linked closely by an interaction with gender.

Females exhibited relational aggression which was an impulsive antisocial behaviours, but this was not disclosed by males. Impulsive antisocial behaviours and feelings included lying, cheating, rebelliousness, exploited others, lacked of concentration, hostility and suspiciousness.

In contrast, Ma's study (2005) explained that femininity was a major gender-role characteristic of girls and was associated negatively with delinquency behaviour. Girls were usually thought to be caring and conforming toward family compared to boys. Masculinity was more connected positively with delinquency behaviour by showing the characteristics for instance dominance, rudeness and aggressiveness. However, femininity was not associated significantly with delinquency behaviour. It was due to gender-role stereotype matched one's biological sex was more significant and predictive in antisocial behaviour compared to the mismatching of biological sex.

Finally, Rhee, and Waldman (2002) revealed that the magnitude of genetic and environmental influences on antisocial behaviour was similar for both sexes. However, Tuvblad, Eley, and Lichtenstein (2005) described that there was significant sex differences connected to the magnitude of genetic and environmental influences on adolescent delinquency. It was because heritability was higher in girls than boys. The dissimilarities in the literature suggested that sex should be taken into consideration in studies associated to the antisocial behaviour in adolescent.

#### *Race and Antisocial Behaviour*

In the study of race and antisocial behaviour by Tosh, and Simmons (2007) revealed that Asian-American adolescents involved in fewer risk-taking behaviours than United States races. Then, Jang (2002) also found that Asian American adolescents generally were more likely to exhibit less deviant behaviour compared to non-Asian American counterparts. For example, Asian-American adolescents showed lower level of sexual intercourse than other

groups. However, once they were sexually active, they were still at the equal risk as all other American adolescents for teenage pregnancy and Sexual Transmitted Infections (STI) (Tosh, & Simmons, 2007).

Furthermore, mixed-race Asians who claimed themselves as Asian but from another racial background were more likely to appear higher prevalence of risk-taking behaviours, compared to Asian who claimed themselves as single race. Majority of mixed-race Asians claimed as a Caucasian heritage, not surprisingly that their risk-taking behaviours were highly associated to Caucasians and consistent with the effect of acculturation (Tosh, & Simmons, 2007).

Parental monitoring and controlling had different influences on children delinquent behaviours with regard to their racial differences. Schmitz (2003) revealed that Americans Black adolescents displayed significantly greater increases in antisocial behaviour than Americans White adolescents. In contrast, another study by Walker-Barnes, and Mason (2001) reported that there was a negative association among American Black adolescents but a positive association of problematic behaviour and parental control among Hispanic and American White adolescents. The explanation of this finding was related to the attribution of different affective meaning on parental controlling behaviour for adolescents who from different racial or ethnic background. For example, American Black adolescents and American White adolescents had different perception towards the same parental controlling behaviour. American Black adolescents were more likely to describe these as caring and supportive (Zimmer-Gembeck, & Helfand, 2007). Thus, racial differences in parental behaviour played significant role in adolescents' behaviour.

A study of Chauhan, and Reppucci (2008) described that parental physical abuse was a stronger predictor of antisocial behaviour for American White girls. This could be explained vividly especially for those living in more disadvantaged neighbourhoods by

displaying aggressive parenting style as the tool to keep the girls at home and out of trouble. However, witnessing violence was a stronger predictor of antisocial behaviour for American Black girls. It was related to the severity of violence that witnessed especially for those who resided in more disadvantaged neighbourhoods. Surprisingly, the effect of race alone in predicting violence behaviour disappeared after statistically controlling neighbourhood disadvantage. It could be explained when individuals living in highly disadvantaged neighbourhoods were more violent, no matter American Whites or American Blacks (Silver, 2000).

### *Religion and Antisocial Behaviour*

In the study of religiosity influences on antisocial behavioural and emotional development, Herrenkohl, Tajima, Whitney, and Huang (2005) proposed adolescents that have involvement in religious institution and perceiving religion as significant element decreased the risk of violence and delinquency. The finding was consistent from the study by L. G. Simons, R. L. Simons, and Conger (2004) which described that the negative relationship between religiosity and deviant behaviour as religious adolescents perceived delinquency behaviours as morally unacceptable. Religious adolescent was more likely than non-religious adolescent to report behaviours such as drinking alcohol, shoplifting, truancy, and premarital sex as morally deviant. This could be explained when religious settings provided adolescents to receive social support from others within an easily accessible environment. However, the most fundamental was the positive information that adolescents receive within such settings led to tolerance and peaceful resolution of their issue (Herrenkohl, Tajima, Whitney, & Huang, 2005).

Moreover, a study by Cao (2005) noticed that church-attending adolescents were able to establish positive relationships with pastors and teachers as they understood adolescents' struggles and issues. It also described that frequent church attendance and theological



conservatism led to adolescents to be volunteer in the community and more likely to help others out of their personal initiative (Gibson, 2008).

In another study by Kang, and Romo (2010) revealed that personal spirituality mediated the association between church engagement and adolescent outcomes. It was indicated through the explanation in which church engagement provided a place for personal spirituality to grow in boys and girls. The finding also suggested that church engagement in boys and girls were more likely to make commitments and decisions regarding the religious aspects of their lives. Thus, daily spiritual experiences, beliefs and religious practices served as the strong indicators to build up personal spirituality which might prevent adolescents to commit in delinquent behaviours.

Finally, Douki, Zineb, Nacef, and Halbreich (2007) in their study revealed that Muslim women were usually raised up under close surveillance in the issue of sexuality. The conservative upbringing pattern developed the sense of fear toward sexual intercourse. In fact, they were being unconcerned to sexual abstinence. Surprisingly, they were exposed to female genital mutilation for the purpose to reduce their sexual desire and to enforce premarital sexual chastity which was common in some countries. There were 61% of these women perceived that having sex was only an obligation towards their husband and 30% strongly disagreed to have premarital sex. This was due to Muslim woman accepted the duty of virginity and illegitimate pregnancy was absolutely prohibited.

#### *Different Perspectives on Antisocial Behaviour*

*Social development model.* The social development model asserted that the more bonded children with their parents they were more likely to apply their parents' norms and values. Poor family management practices such as unclear expectations, poor monitoring, changeable or severe discipline contribute to delinquency and substance abuse. However, proactive family management practices with clear rules, child monitoring and consistent

discipline were able to prevent the child from those criminal behaviours. This model revealed good parental bonding was expected to correlate positively with prosocial beliefs, but negatively correlate with antisocial behaviour (Haggerty, Kosterman, Redmond, & Spoth, 2004).

*Interactional theory.* This theory explained that individual who involved in antisocial behaviour during adolescence had significant developmental impacts that consequently compromised the life chances of his or her next generation. Among the impacts were the adolescents might have disruption of the formation of social bonds. For instance, there was possibly an increased level of school withdrawal. No doubt, it led to higher level of adolescent antisocial behaviour and lower level of prosocial bonds. It was predicted that an increase of disorderly transitions from adolescence to adulthood might take place. Therefore, with the presence of these factors it increased the likelihood of the person to be involved in a higher level of structural adversity stress that finally lead to antisocial behaviour (Thornberry, Freeman-Gallant, & Lovegrove, 2009).

*Social cognition theory.* Social cognition theory provided an important framework to understand the association between individual, peers and parental factors and antisocial behaviour which was moderated by depressive symptoms. This theory emphasized that individuals proactively had involvement in their own development and actions. According to Bandura (1986), adolescents established their self-beliefs system that enables them to manage and control their own actions. Individuals were considered as a product and producers of their own environments. But, environment did not place influence to the individual behaviour directly; rather, environment effects behaviour to the degree that environment affects thoughts, beliefs and emotions (as cited in Nebbitt, & Lombe, 2008).

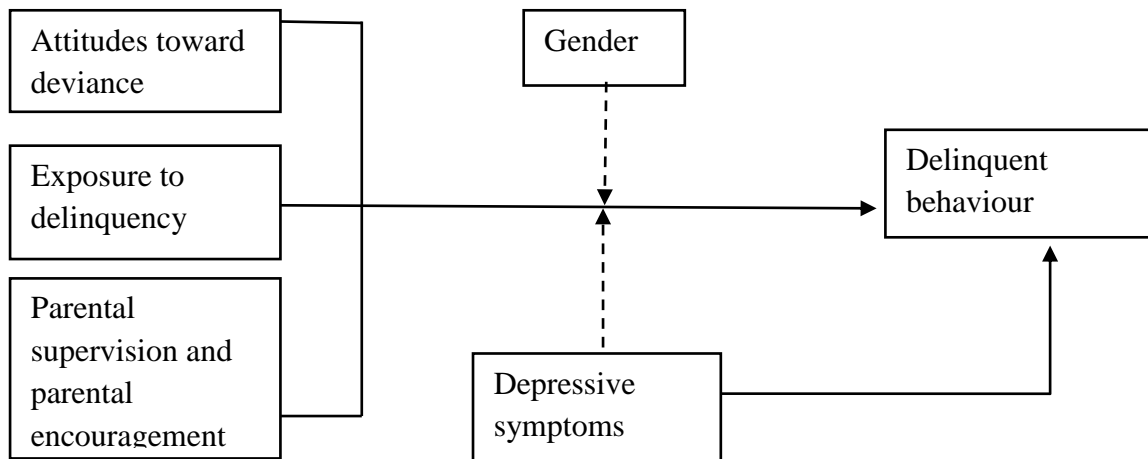


Figure 1.0 Analytic model from Social Cognition Theory that explained about how delinquent behaviour was formed

*Analytic model.* In social cognition theory, analytic model had been developed (Figure 1.0, p.16). In this model revealed that an adolescent's own attitudes towards deviance generated the direct impacts on their antisocial behaviour experiences. This model also postulated that peers' and parents' behaviour affected an adolescent's behaviour. Furthermore, Bandura (1986) argued that behaviour had been indirectly influenced by the environmental conditions via psychological mechanisms and that environmental influences differed according to gender. This model also hypothesized that depressive symptoms was affected by the environmental conditions and moderated the relevant attitudes towards deviance. It increased the likelihood to explore themselves to delinquent peers and parental supervision and encouragement on this antisocial behaviour (as cited in Nebbitt, & Lombe, 2008).

Attitudes toward deviance and parental behaviour were predicted to be oppositely related to delinquent behaviour, whereas exposure to delinquent peers and depressive symptoms were predicted to be positively correlated to delinquency. The opposite associations between attitudes towards deviance and parental behaviour, and antisocial behaviour were predicted to be less strong for boys and older adolescents. However, the positive association between exposure to delinquent peers and antisocial behaviour were

predicted to be stronger for boys and older adolescents. In addition, when an adolescent reported depressive symptom with scores of 24 and above, it was expected there would be a weaker negative relationship between attitudes towards deviance and parental behaviour, and antisocial behaviour. In contrast, the positive relationship between exposure to delinquent peers and delinquent behaviour were predicted to be stronger when an adolescent had depressive symptoms with scores of 24 and above (Nebbitt, & Lombe, 2008).



Figure 2.0 A representation of Instrumental Antisocial Decision-Making (IAD) processes that are potentially active during a youth's consideration of acting upon deviant goals and desires.

*Instrumental antisocial decision-making (IAD).* Fontaine (2007) in his study proposed that IAD framework consisted of five domains of behavioural evaluation which specifically determined adolescents' instrumental antisocial choices and behavioural (Figure 2.0, p. 17). Instrumental antisocial behaviour is defined as calm, deliberate, harmful behaviours that are performed out for goal attainment. It was usually driven by the internal desires and goals that perceived as positive or attractive.

Firstly, in the stage of goal assessment, the adolescent (1) identified the subject goal, (2) assessed its overall valence to be more important than a fleeting thought, (3) determined

the degree which the goal was consistent or opposed to the social norms and rules and (4) evaluated the feasibility (Fontaine, 2007).

Secondly, the adolescent established one or more behavioural approaches as possible ways by which the antisocial goal might be realized. This was known as strategy and opportunity realization. The first two sets of processes were significant to the types of antisocial-goal-striving behaviours in adolescent which differentiated IAD from other behavioural models (Fontaine, 2007).

Thirdly, adolescent evaluated a well-generated means whether it was congruent to sociomoral identity. This stage was known as sociomoral congruence. At this stage, adolescents perceived themselves as moral agent or members of their specific social network, subculture and society-at-large. Thus, actor evaluated the sociomoral congruence to “fit” into their behavioural plan and social and moral identity (Fontaine, 2007).

Fourthly, adolescent identified possible negative and positive consequences as the result of direct or indirect consequences by implementing the strategy that generated. Adolescent predicted that the antisocial behaviour would either lead to actualizing the subject motive successfully or undesired outcomes. This process was known as outcome and risk appraisal. Risk appraisal served as essential element to discourage performing in antisocial manner when the great risk was perceived as a deviant behavioural choice and was assessed to be tolerable (Fontaine, 2007).

Ultimately, the actor decided to act upon his or her antisocial interest by determining to pursue goal attainment with a behavioural strategy. This process is known as behavioural decision. However, the degree to which these processes of IAD were utilized varies according to how impulsive and mindful the actor was during the course of instrumental deliberation. Thus, instrumental antisocial behaviour was socially unacceptable in which purposefully performed out for realizing one’s desire or goal (Fontaine, 2007).

*Twin and adoption studies.* This biological view of antisocial behaviour been supported from twin and adoption studies that revealed the genetic influence on Antisocial Personality Disorder (ASPD). Furthermore, genetic factors influences account for 18-43% of the variance in children who were under the age of 18 with conduct problems and delinquency issues (Taylor, McGue, Iacono, & Lykken, 2000). Thus, individual differences in antisocial behavior or impulsivity that generally found in children, adolescents, and adults were positively related with genetic factors (Taylor, Loney, Bobadilla, Iacono, & McGue, 2003)

*Amygdala dysfunction.* The relationship between antisocial behaviour and amygdala dysfunction could be explained by the number of findings in adults and adolescents. The deficit features due to dysfunction of amygdala included failure to recognize fearful facial expressions, poor fear condition and decreased amygdala responsive to adverse emotional stimuli. In addition, biological marker might help to identify subgroups with a distinct neurobiological profile even during early childhood. It was due to greater plasticity of the brain in childhood that led to the rapid changes in behaviour (Sterzer, 2010).

*Poor fear conditioning.* A study by Gao, Raine, Venables, Dawson, and Mednick (2010) revealed that fear conditioning was the mechanism in which people learned to associate antisocial behaviours with negative consequences such as punishment or social rejection. Individual with failure in such social learning by having poor fear conditioning that increases the likelihood had involvement in antisocial behaviour. If this poor fear conditioning was the main role in crime, then it should be detectable in early life before the antisocial behaviours had been manifested. The deficiency of amygdala function in an individual had the inability to recognize cues that signal threat, making the individual relatively fearless. They became less sensitive to negative consequences and fearless trait made them easily engage in antisocial behaviour.

## CHAPTER III

### METHODOLOGY

This chapter focused on the aspect of research design, participants and location, instrument, research procedures, and data analysis. In this study, survey method with stratified random sampling was being implemented for obtaining data. Participants were students from three secondary schools: Sekolah Menengah Kebangsaan Krian, Sekolah Kebangsaan Methodist, and Sekolah Panglima Bukit Gantang that located at Parit Buntar, Perak. Psychopathy Checklist Revised: Youth Version (PCL: YV) served as the instrument to access the antisocial behaviour level among adolescents.

#### *Research Design*

*Survey.* Research design was the basic structure of a scientific study which consisted of different types of designs to acquire information from the research sample (Spector, 2008). In this survey research, samples were selected to answer a predetermined set of questions. By using the same systematic phrasing of questions, it was possible to summarize the views of all respondents concisely (Shaughnessy, B. Zechmeister, & S. Zechmeister, 2009).

This research was conducted by implementing probability sampling with stratified random sampling through controlling the size of strata. Hence, the result would not easily be influenced by chance factor. In stratified random sampling, sample was randomly selected from each of the subpopulation which known as strata (Shaughnessy, B. Zechmeister and S. Zechmeister, 2009). There were five strata in this research, namely Stratum 1, Stratum 2, Stratum 3, Stratum 4, and Stratum 5 from three secondary schools students that being controlled with predetermined of sample size in term of their age, racial, sex differences but not religious differences (see Appendix V, p.98). Religious differences were not controlled as

majority of students belonged to main religions groups (Islam, Buddhism or Hinduism) but only small number of participants belonged to other religions groups (Taoism or Christianity).

Multiple samples were selected from the population at one time making this research a cross-sectional design. Cross-sectional design was chosen as this research aimed to predict and to examine antisocial behaviour of Malaysian adolescents at one time. In addition, cross-sectional design was perfectly suited for descriptive and predictive goals of survey research (Shaughnessy, B. Zechmeister, & S. Zechmeister, 2009). Other than that, this research was conducted by using self report measure of survey method. The reason was this method had several advantages such as low cost, time-saving and self-reflection from participants.

#### *Participants and Location*

Participants were students from Sekolah Menengah Jenis Kebangsaan Krian (SMJK Krian), Sekolah Menengah Kebangsaan Methodist (SMK Methodist) and Sekolah Menengah Kebangsaan Panglima Bukit Gantang (SMK Panglima Bukit Gantang). Participants' age ranged from 13-18 years old and they were also Form 1, Form 2, Form 3, Form 4 and Form 5 secondary school students.

For SMJK Krian, the population was 1674 students. There were 399 Form 1 students, 355 Form 2 students, 351 Form 3 students, 355 Form 4 students and 214 Form 5 students. This secondary school was selected as there were majority Chinese occupied in this school.

Next, there were 717 students in SMK Methodist. There were 151 Form 1 students, 152 Form 2 students, 152 Form 3 students, 131 Form 4 students and 131 Form 5 students. This school was selected as Indians was the biggest racial group in this population.

Lastly, the population of SMK Panglima Bukit Gantang was 1046 students. There were 196 Form 1 students, 206 Form 2 students, 239 Form 3 students, 228 Form 4 students, 177 Form 5 students. This school had been chosen as there were Malays being occupied in this secondary school.



These three secondary schools were chosen due to the similarity of environmental factors shared. Apart from that, proximity was also served as an important factor as the schools were not far apart from each other for less than 2 kilometer (km).

In sum, there were 120 students participated in this research. There were 25 students aged 13, 22 students aged 14, 21 students aged 15, 22 students aged 16, 21 students aged 17 and two students aged 18. Generally, there were 61 male students and 59 female students in this research. Then, there were 40 Malay, 40 Chinese and 40 Indian. As for religion, there were 40 in Islam, followed by 36 in Buddhism, 39 in Hinduism, four in Taoism and one in Christianity.

Finally, the survey research was conducted in the compound of SMJK Krian, SMK Methodist and SMK Panglima Bukit Gantang. All these secondary schools were located at Parit Buntar town, Kerian district, Perak state, Malaysia.

#### *Instrument*

Hare Psychopathy Checklist: Youth Version (PCL: YV) was specifically designed for adolescents aged 13-18 years old. PCL: YV was adapted from the Hare Psychopathy Checklist- Revised (PCL-R) which was the most widely use of instrument to measure psychopathy in adult (PCL-R; Hare, as cited in Forth, Kosson and Hare, 2003). PCL: YV had been used for assessing psychopathic traits in forensic settings including juvenile institutional and community, correctional facilities and forensic psychiatric hospitals (Forth, Kosson and Hare, 2003).

PCL: YV had 20 items which were scored on a three point ordinal scale 0 (no), 1 (maybe or in some aspects), 2 (yes). PCL: YV generated a total score of four factor scores and the total score was the sum of all 20 items. A high scoring group (30 and above), medium scoring group (score 20-30) and low scoring group (score of 20 and lower) were being categorized. Items of PCL: YV covered from impression management (item 1), grandiose

sense of self-worth (item 2), stimulation seeking (item 3), pathological lying (item 4), manipulation for personal gain (item 5), lack of remorse (item 6), shallow affect (item 7), callous/lack of empathy (item, 8), parasitic orientation (item 9), poor anger control (item 10), impersonal sexual behaviour (item11), early behavioural problems (item 12), lacks goals (item 13), impulsivity (item 14), irresponsibility (item 15), failure to accept responsibility (item 16), unstable interpersonal relationships (item 17), serious criminal behaviour (item 18), serious violation of conditional release (item 19) and criminal versatility (item 20) (Forth, Kosson and Hare, 2003).

All the items in PCL: YV were categorized into four factors which consisted of Factor 1, Factor 2, Factor 3 and Factor 4. Factor 1 reflected interpersonal that consisted of item 1, 2, 4 and 5. Factor 2 reflected affective dimension that consisted of item 6, 7, 8 and 16. Factor 3 reflected behavioural or lifestyle features that consisted of item 3, 9, 13, 14, and 15. Factor 4 reflected antisocial that consisted of item 10, 12, 18, 19 and 20. Item 11 and item 17 were not part of any factors.

In addition, the original items in PCL: YV had been modified from phrase form to sentence form and translated into Bahasa Malaysia to adapt Malaysian cultural context (see Appendix U, p. 96). Then, item descriptions had been displayed vividly (see Appendix T, p. 94).

The PCL: YV had adequate levels of inter-rater reliability and internal consistency for total scores. Intra Class Correlations (ICCs) were used to assess inter-rater reliability by three researchers in 15 cases, and these generated ICCs for the PCL: YV total score of .93, .92, and .87 with an average of .90. The internal consistency of the PCL: YV was acceptable, ranging from .85 to .94 across the settings (Forth, Kosson and Hare, 2003).

### *Research Procedure*

Before the commencement of questionnaire distribution, research proposal had been revised and approved by research supervisor, Ms Low Sew Kim. Pilot testing was being utilized for identifying possible problems from the translated version of Bahasa Malaysia in PCL: YV and the modified statement items. Some corrective adjustments had been done before collecting data from target participants. There were 30 samples selected to complete the modified version of PCL: YV and were required to complete the same instrument again after two weeks. The value of mean was computed from these two groups and compared. The mean from the first pilot testing was 10.670 and the second pilot testing was 11.270 with the difference of 0.600 (see Appendix C, p.67). Therefore the modified version of this PCL: YV instrument was proven to be consistent, reliable and accurate.

The research was conducted on 17 May, 2010 Monday, 9.00am at SMJK Krian where eight Chinese students (four males and four females) randomly selected from each stratum. Next, eight Indian students (four males and four females) from each stratum of SMK Methodist were randomly selected. Finally, eight Malay students (four males and four females) from each stratum were selected from SMK Panglima Bukit Gantang. The procedure ended at 1.00pm on the same day.

Subsequently, on 21 May, 2010 at 10.00am, all questionnaires were successfully collected from 120 participants with 100% response rate. Finally, the responses were tallied and assessed for answering the research questions in Chapter IV Findings and Analysis. The results had been analyzed in Chapter V Discussion and Conclusion.

### *Data Analysis*

For demographic characteristics (age, sex, racial and religious groups), item scores, factor scores and total scores had been measured in descriptive statistics (mean, standard deviation, frequency and percentage). Statistical Package for Social Science (SPSS) program

was being used with several statistical methods consisted of Pearson Correlation, ONE WAY ANOVA, and t-test for obtaining the statistical result between four independent variables (age, sex, racial, and religious differences) and dependent variable (antisocial behaviour).

CHAPTER IV  
FINDINGS AND ANALYSIS

Findings and analysis of this research study focused on two main parts: descriptive statistics and inferential statistics. For descriptive statistics, the statistical result of participants' demographic variables, item scores, factors scores, and total scores were shown in percentage, frequency, mean, and standard deviation. Then, for inferential statistics, the statistical results of four independent variables (age, sex, racial, and religious groups) and dependent variable (antisocial behaviour) had been computed with appropriate statistical methods such as Pearson correlation, *t*-test, and ONE WAY ANOVA.

*Descriptive Statistics*

Table 1.0

*Descriptive statistics for participants' age, sex, race and religion*

Age	%	Sex	%	Race	%	Religion	%
13	20.833	Male	50.833	Malay	33.333	Islam	33.333
14	20.000	Female	49.617	Chinese	33.333	Buddhism	30.000
15	18.333			Indian	33.333	Hinduism	32.500
16	18.333					Taoism	3.333
17	18.333					Christianity	0.833
18	1.667						

The result above reported that there were 120 participants selected from three secondary schools (SMJK Krian, SMK Methodist and SMK Panglima Bukit Gantang). There was 100% response rate with the full cooperation from participants. Among all the participants, the highest percentage of participants were in 13 years old (20.833%), followed by 14 years old (20.000%), 15 years old (18.333%), 16 years old (18.333%), 17 years old (18.333%), and 18 years old (1.667%).

In addition, there were a higher number of male participants (50.833%) than female participants (49.167%) in the whole population. The stratified random sampling method in this research had equally controlled the number of participants in different races that represented into Malay (33.333%), Chinese (33.333%), and Indian (33.333%). Finally, as for the participants' religion, the most popular religion was dominated by Islam (33.333%), followed by Hinduism (32.500%), Buddhism (30.000%), Taoism (3.333%), and Christianity (0.833%) in this research.

Table 2.0

*Descriptive statistics for Psychopathy Checklist: Youth Version (PCL:YV) factors scores*

	Factor 1 Interpersonal	Factor 2 Affective	Factor 3 Behavioural	Factor 4 Antisocial
<i>M</i>	3.748	1.852	2.995	1.639
<i>SD</i>	1.308	1.636	1.756	1.842

The table above revealed that PCL:YV was categorized by four factors that included Factor 1 Interpersonal, Factor 2 Affective, Factor 3 Behavioural and Factor 4 Antisocial. Factor score will not be calculated if there was more than one omitted item in each factor and would be considered as missing data. Among all the factors, the highest mean score was achieved by Factor 1 ( $M= 3.748$ ,  $SD=1.308$ ), followed by Factor 3 ( $M=2.995$ ,  $SD=1.756$ ), then Factor 2 ( $M=1.852$ ,  $SD=1.636$ ), and Factor 4 ( $M=1.639$ ,  $SD=1.842$ ). Despite of that, the item scores of PCL:YV had been shown (see Appendix H, p.72).

Table 3.0

*Descriptive statistic for Psychopathy Checklist: Youth Version (PCL:YV) total score by age*

Age	N	M	SD
13	25	10.156	4.809
14	22	11.914	6.361
15	21	11.011	4.016
16	22	10.282	4.158
17	21	11.000	3.728
18	2	27.000	18.385
Missing	7		

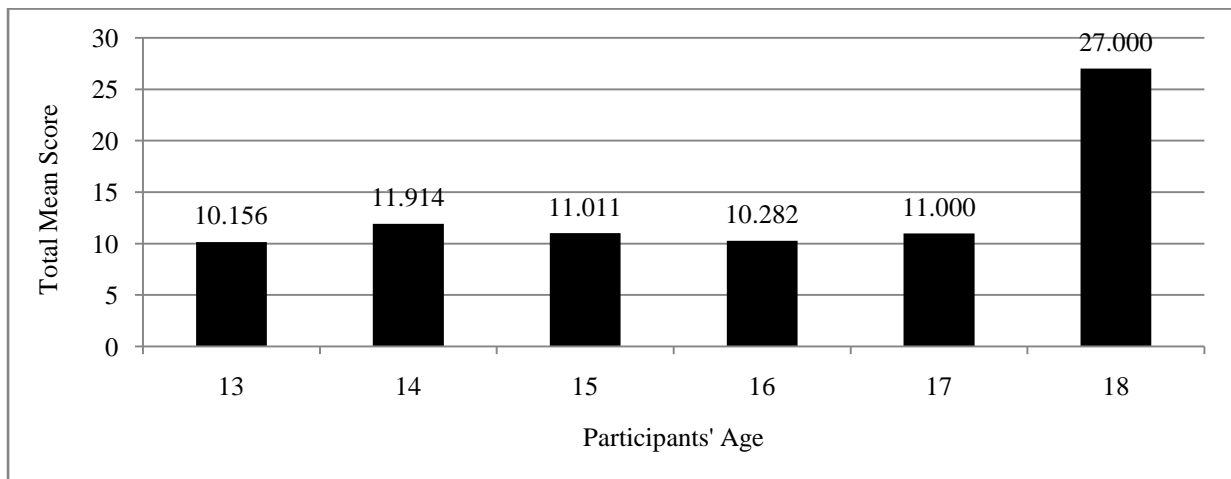


Figure 3.0: *PCL: YV total mean score by age (13-18 years old). Those with the higher mean score signified the higher likelihood to involve in antisocial behaviour.*

Based on the result that shown above, participants with aged 18 ( $M=27.000$ ,  $SD=18.385$ ) achieved the highest score of PCL: YV, followed by 14 years old ( $M=11.914$ ,  $SD=6.361$ ), 15 years old ( $M=11.011$ ,  $SD=4.016$ ), 17 years old ( $M=11.000$ ,  $SD=3.728$ ), 16 years old ( $M=10.282$ ,  $SD=4.158$ ) and 13 years old ( $M=10.156$ ,  $SD=4.809$ ). The higher mean score by age revealed the higher likelihood to involve in antisocial behaviour, vice versa.

Table 4.0

*Descriptive statistics for Psychopathy Checklist: Youth Version (PCL: YV) total score by sex*

Sex	N	M	SD
Male	60	12.562	6.067
Female	56	9.256	3.884
Missing	4		

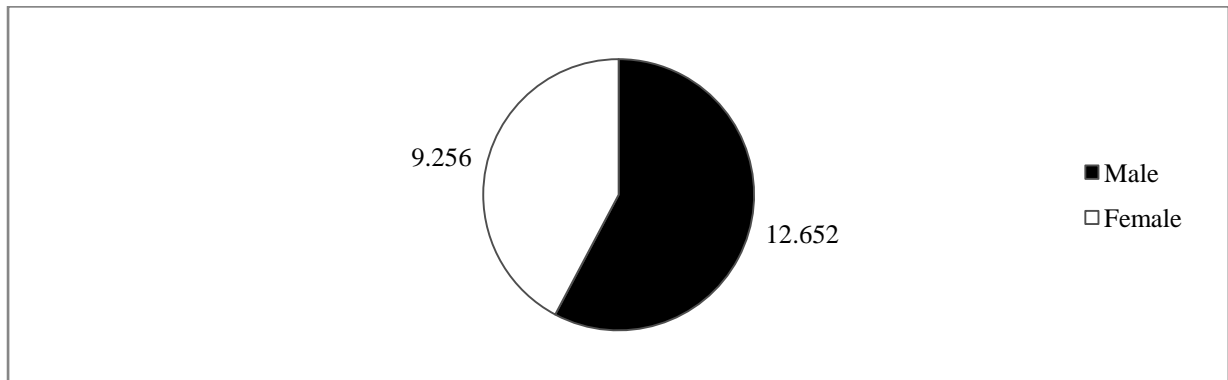


Figure 4.0: *PCL: YV total mean score by sex. For male or female with the higher mean score indicated the higher tendency to involve in antisocial behaviour.*

The result above exhibited that those male participants ( $M=12.652$ ,  $SD=6.067$ ) scored higher than female participants ( $M=9.256$ ,  $SD=3.884$ ) in PCL:YV. The higher the mean score revealed the higher tendency for adolescents to involve in antisocial behaviour, vice versa.



Table 5.0

*Descriptive statistics for Psychopathy Checklist: Youth Version (PCL: YV) total score by racial groups*

Racial Group	N	<i>M</i>	<i>SD</i>
Malay	38	9.574	4.203
Chinese	38	12.066	6.991
Indian	40	11.378	4.378
Missing	4		

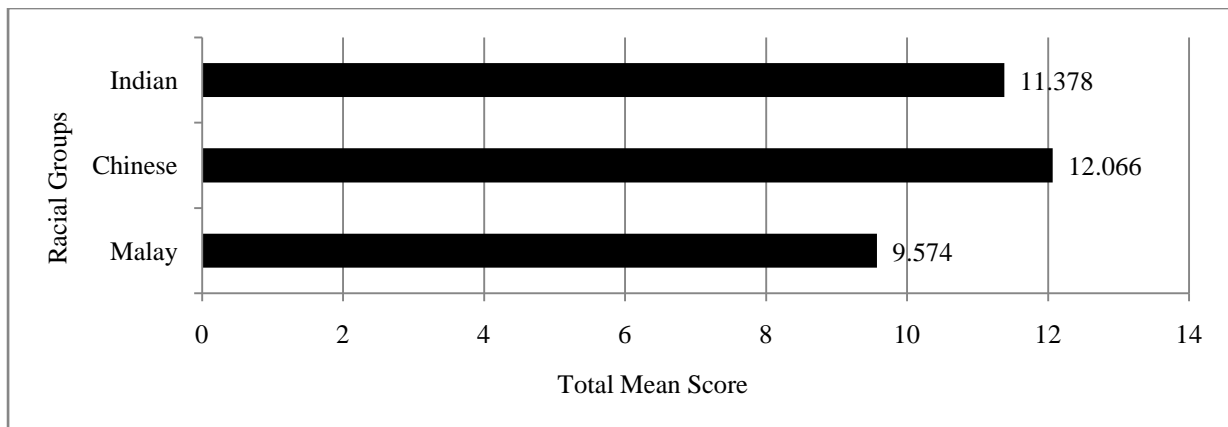


Figure 5.0: *PCL:YV total mean score by racial groups (Malay, Chinese, and Indian). For racial group with the higher mean score exhibited the higher tendency to involve in antisocial behaviour.*

The result above found that Chinese participants had the highest score ( $M= 12.066$ ,  $SD=6.991$ ) continued by Indian participants ( $M=11.378$ ,  $SD=4.378$ ) and Malay participants ( $M=9.574$ ,  $SD=4.203$ ) in PCL: YV. The higher the mean score by racial differences signified the higher tendency to involve in antisocial behaviour, vice versa.

Table 6.0

*Descriptive statistics for Psychopathy Checklist: Youth Version (PCL: YV) total score by religious groups*

Religious Group	N	M	SD
Islam	38	9.574	4.203
Buddhism	34	12.338	7.257
Hinduism	39	11.414	4.430
Taoism	4	9.750	3.948
Christianity	1	10.000	-
Missing	4		

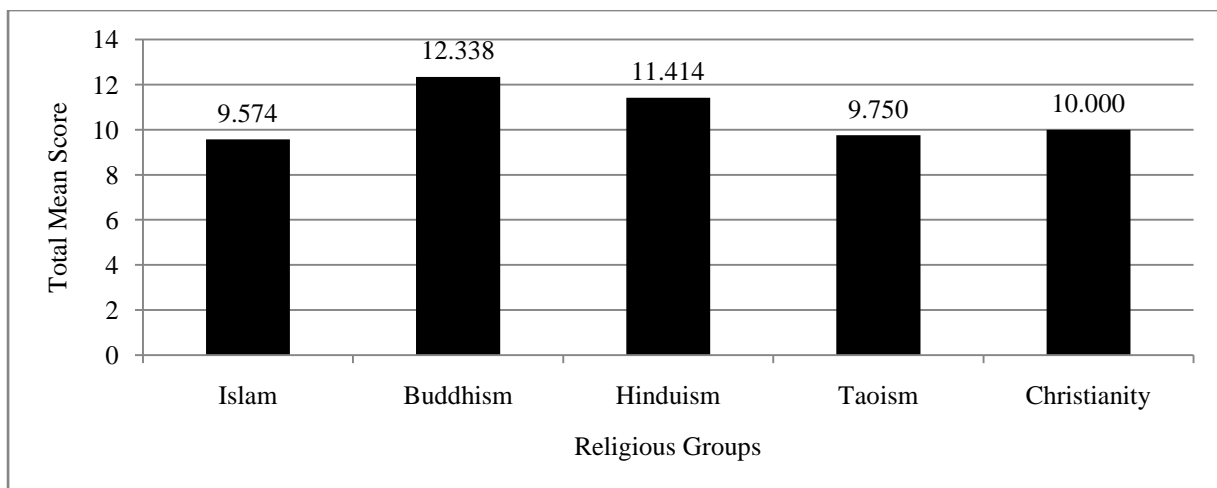


Figure 6.0: *PCL: YV total mean score in different religions. Religion group with the higher mean score revealed the higher possibility of involvement in antisocial behaviour.*

The result above exhibited that participants in Buddhism showed the highest score ( $M=12.338$ ,  $SD=7.257$ ), then followed by the participants in Hinduism ( $M=11.414$ ,  $SD=4.430$ ), Christianity ( $M=10.000$ ), Taoism ( $M=9.750$ ,  $SD=3.948$ ) and Islam ( $M=9.574$ ,  $SD=4.203$ ). Religious group with the higher mean score indicated the higher possibility of involvement in antisocial behaviour.

*Inferential statistics*

Research question 1: Is there any significant correlation between age of adolescents and antisocial behaviour?

Table 7.0

*Pearson correlation between age and antisocial behaviour*

		Total Score
Participants' age	Pearson Correlation	0.114
	Sig. (2-tailed)	0.227
	N	113

Note:  $p > 0.05$

Research Hypothesis 1: There is a significant correlation between age and antisocial behaviour among Malaysian adolescents.

Null Hypothesis 1: There is no significant correlation between age and antisocial behaviour among Malaysian adolescents.

The result of *Pearson correlation* showed that there is no significant correlation between age and antisocial behaviour,  $r(111, n=113) = 0.114, p > 0.05$ . Null hypothesis is failed to reject.

Nevertheless, 18 years old participants ( $M=27.000, SD=18.385$ ) score the highest in PCL:YV, then follow by 14 years old ( $M=11.914, SD=6.361$ ), 15 years old ( $M=11.011, SD=4.016$ ), 17 years old ( $M=11.000, SD=3.728$ ), 16 years old ( $M=10.282, SD=4.158$ ) and 13 years old ( $M=10.156, SD=4.809$ ) ( see Table 3.0 & Figure 3.0, p. 28).

Research question 2: Do male adolescents have higher tendency to involve in antisocial behaviour than female adolescents?

Table 8.0

*Differences between sex and antisocial behaviour*

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Sex			3.563	114	<0.05
Male	12.652	6.067			
Female	9.255	3.884			

Note:  $p < 0.05$

Research Hypothesis 2: There is a significant difference between sex and antisocial behaviour.

$$H_2 : \mu_1 \neq \mu_2$$

Null Hypothesis 2: There is no significant difference between sex and antisocial behaviour.

$$H_{02} : \mu_1 = \mu_2$$

The result of *Independent Sample t-test* shows that there is a significant difference between male participants and female participants in antisocial behaviour,  $t(114) = 3.563$ ,  $p < 0.05$ . Male participants significantly show higher tendency to involve in antisocial behaviour ( $M=12.652$ ,  $SD=6.067$ ) than female participants ( $M=9.255$   $SD=3.884$ ). Therefore, null hypothesis is rejected (see Table 4.0 & Figure 4.0, p. 29).

Research question 3: Which racial group has more antisocial behaviour tendency?

Table 9.0

*Source table for ONE WAY ANOVA between racial differences and antisocial behaviour*

Source	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Between	126.183	2	63.092	2.221	> 0.05
Within	3209.516	113	28.403		
Total	3209.516	115			

Note:  $p > 0.05$

Research Hypothesis 3: There is a significant difference between racial groups and antisocial behaviour.

$$H_3 : \mu_1 \neq \mu_2$$

Null Hypothesis 3: There is no significant difference between racial groups and antisocial behaviour.

$$H_{03} : \mu_1 = \mu_2$$

The result of ONE WAY ANOVA showed that there is no significant difference between racial groups (Malay, Chinese, and Indian) and antisocial behaviour,  $F_{(2,113)} = 2.221$ ,  $p > 0.05$ . Null hypothesis is failed to reject.

However, among all the racial groups, Chinese participants ( $M=12.066$ ,  $SD=6.991$ ) exhibit higher score in PCL: YV than Indian ( $M=11.378$ ,  $SD=4.378$ ) and Malay ( $M=9.574$ ,  $SD=4.203$ ) (see Table 5.0 & Figure 5.0, p. 30).

Research question 4: Which religious group shows higher possible involvement in antisocial behaviour?

Table 10.0

*Source table for ONE WAY ANOVA between religious differences and antisocial behaviour*

Source	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Between	152.108	4	38.027	1.326	> 0.05
Within	3183.592	111	28.681		
Total	3335.700	115			

Note:  $p > 0.05$

Research Hypothesis 4: There is a significant difference between religious groups and antisocial behaviour.

$$H_4 : \mu_1 \neq \mu_2$$

Null Hypothesis 4: There is no significant difference between religious groups and antisocial behaviour.

$$H_{04} : \mu_1 = \mu_2$$

The result of ONE WAY ANOVA showed that there is no significant difference between religions groups (Islam, Buddhism, Hinduism, Taoism, and Christianity) and antisocial behaviour,  $F_{(4,111)} = 1.326$ ,  $p > 0.05$ . Null hypothesis is failed to reject.

Nevertheless, participants in Buddhism ( $M=12.338$ ,  $SD=7.257$ ) show the highest score in PCL: YV than participants in Hinduism ( $M=11.414$ ,  $SD=4.430$ ), continued by participants in Islam ( $M=9.574$ ,  $SD=4.203$ ), participants in Taoism ( $M=9.750$ ,  $SD=3.948$ ) and participants in Christianity ( $M=10.000$ ,  $SD=0.000$ ) (see Table 6.0 & Figure 6.0, p. 31).

## CHAPTER V

## DISCUSSION &amp; CONCLUSION

This chapter aimed to analyze the statistical result of antisocial behaviour among Malaysian adolescents in terms of age (13-18 years old), sex (males and females), racial groups (Malay, Chinese, and Indian) and religious groups (Islam, Buddhism, Hinduism, Taoism, and Christianity). Limitations of study, recommendations of study and conclusions were included as well.

*Age and Antisocial Behaviour*

The result of this study revealed that there was no significant correlation between age (13-18 years old) and antisocial behaviour,  $r(111, n=113) = 0.114, p > 0.05$ . It was consistent with the previous research findings by Forth, Kosson, and Hare (2003) reported that PCL: YV total score did not appear to be affected by adolescents' age as the correlation was less than .20. It was reported that, PCL: YV total score and age were generally small by reaching significance result in only three out of 19 samples ( $N=2,438$ ). Then, the pooled correlation across the samples was  $-.11, p < .01$ .

In addition, the non-significant result or poor correlation was probably due to the confounding factor in which the particular area examined in this study is not being typical of high-density areas in other developed countries. Adolescents who typically grew up in higher-density areas, self-reported higher involvement in delinquent behaviours across 10-17 years old (Harden et al., 2009). However, this study was conducted in a relatively low density area which located at Kerian district, and the population was only 193,000 inhabitants or 213 inhabitants per square kilometer (Department of Statistics Malaysia, 2009).

A report by Sidhu (2005) found that urbanization and population density affects the crime rate rather than population per se. It was typically existed in the states of Kuala Lumpur, Selangor, Penang and Johor that revealed a higher crime index per 100,000 than the

mean national index of 612 cases. In addition, Sabah, Sarawak, Perak and Kedah states had displayed lower index crime per 100,000 although showing a higher population than Kuala Lumpur and Penang. It was possible that the less densely populated area fostered adaptive mental health development among adolescents (Harden et al., 2009).

On the other hands, research findings reported that significant result between age differences and antisocial behaviour among adolescents could be explained through the social neuroscience perspectives. It was because the changes of dopaminergic activity during puberty increase the level of sensation seeking which primarily led to risk-taking behaviours among adolescents. It was explained as dopaminergic activity played the role in affective and motivational regulation which significant for social processing information. Thus, adolescents who were in the pubertal period became sensitive to various rewards during exposure to social stimuli as well as in the presence of peers. Ultimately, these biological changes increased the vulnerability to risky and reckless behaviours among adolescents from age 10 until the peak of mid-adolescence and decline thereafter (Steinberg, 2008).

#### *Sex and Antisocial Behaviour*

This research finding showed that there was a significant difference between sex and antisocial behaviour,  $t(114) = 3.563, p < 0.05$ . Male participants ( $M=12.652, SD=6.067$ ) had higher score in PCL: YV compared to female participants ( $M=9.255, SD=3.884$ ). However, both sexes were still categorized under the low scoring group (score of 20 and lower).

This research finding was consistent to the previous research findings from Ma (2005) which proposed that the femininity and masculinity as gender-role stereotypes in biological sex differences. Femininity was obviously displayed among girls who were usually thought to be caring and conform toward family norms compared to boys. On the other hands, masculinity was more connected positively with delinquent behaviours among boys. It could be shown when boys displayed some traits such as dominance, rudeness and aggressiveness.



Therefore, gender-role stereotypes that matched to one's biological sex were more significant and predictive especially in social behaviours rather than mismatching of gender-role.

Furthermore, sex differences in antisocial behaviour could be explained through the development of social cognitive skills as in the study of Bennett, Farrington, and Huesmann (2005). Females developed social cognitive skills earlier in life, so there were less neurological deficits that deteriorate their social cognitive development. Thus, it led to better maturation rate and greater positive socialization chances for developing prosocial skills than males in early age that explained gender differences in crime and violence.

Subsequently, a research by Liljeberg, Eklund, Fritz, and Klinteberg (2011) revealed that poor school attachment and commitment for boys were more likely to be predicted in delinquency involvement. It was probably due to negative relation towards school as well as lack of motivation for achievements at school were more predictive in boys' misconduct. Surprisingly, girls did not exhibit delinquent behaviours neither due to negative attitudes towards school nor poor achievement at school.

At the counter point, previous studies that focused on sex differences in antisocial behaviour without including covert form had been challenged (Schoot, Velden, Boom, & Brugman, 2009). There was an argument saying that females may exhibit different form of antisocial behaviours than males which suggesting that the level of sex differences are smaller than the previously proposed (Willoughby, Kupersmidt, & Bryant, 2001). Moffitt, Caspi, Rutter, and Silva (2001) also found that the gap between boys' and girls' behaviours had been narrowed at age 15. It could be explained by the study of Gorman-Smith, and Loeber (2005) which reported that boys performed antisocial more overtly whereby girls performed antisocial more covertly. Ultimately, this was probably because females displayed proactive relational aggression and impulsive antisocial behaviours which rarely existed in males (Ostrov, & Houston, 2008).

*Race and Antisocial Behaviour*

The result in this study showed that there was no significant difference between racial groups (Malay, Chinese, and Indian) and antisocial behaviour among adolescent participants,  $F_{(2,113)} = 2.221, p > 0.05$  in PCL: YV.

This result was consistent with the research finding by Cooke, Kosson, and Michie (2001) that focused on the Psychopathy Checklist-Revised (PCL-R) in two different ethnic groups (Caucasian and African American) in assessing psychopathy level among adult forensic populations (Forth, Kosson, & Hare, 2003). Importantly, this result explained that PCL:R did not show significant differences between race and ethnicity groups and psychopathy level. Similarly, O'Neill, Lidz, and Heilbrun (2003) proposed no significant differences in modified PCL: R or PCL: YV between Caucasians and African-American adolescents. This result could be explained when the geographic distribution of participants in the region were dominated by their own ethnic or racial group in which the majority samples reside within similar communities (Fishbein, & Pérez, 2000). Therefore, it probably explained the reason of the non significant result between racial differences and antisocial behaviour in this current study.

In Malaysia context, Indians (7.7%) considered as small minority group compared with Malays (65.1%) and Chinese (26%). It was found that Indians adolescents received much stereotyped reputation of being involved in criminal and gang activities and also alcohol and other drugs addiction cases. The main causal factor of violent crime and gang related activities was due to poverty. Indians had usually been linked with plantation labours who received lower wages as a result of commercialization, increasing sale of plantation land, inflow of foreign workers, and unattractive plantation employment. Indians were lacking of affordable housing facilities caused them to reside in densely populated low cost flats. In addition, absence of neighbourhoods' social development and dysfunctional families also led

to the breakdown on social support system. Therefore, adverse environmental factors provided platforms for criminal development as well as other new deviant behaviours (Sidhu, 2005).

However, the current finding of this study was contradicted with previous findings by revealing the significant differences between ethnic or racial groups and antisocial behaviour. Schmitz (2003) reveals that African Americans display significantly greater increases in antisocial behaviour than European Americans. Similarly, a research study by Felson, Deane, and Armstrong (2008) also reported that Black adolescents were more likely than White adolescents to engage in violent crime but not for property or drug crime. It showed that racial differences in violence crimes were mediated by demographic variables, nevertheless the size of race effects reduced after controlling family structure, urban residence, and socioeconomic status.

At the counter point, another study from Walker-Barnes, and Mason (2001) reported that there was a negative relationship among Black adolescent but a positive relationship of problematic behaviour and parental control among Hispanic and White adolescents. This discrepancy could be explained due to the attribution of different affective meaning on parental controlling behaviour particularly for those adolescents who were from different racial or ethnic background. For example, Black and White adolescents had different perception towards the same parental controlling behaviour as Black adolescents described these as caring and supportive (Zimmer-Gembeck, & Helfand, 2007).

#### *Religion and Antisocial Behaviour*

The research finding showed there was no significant difference between religious groups (Islam, Buddhism, Hinduism, Taoism, and Christianity) and antisocial behaviour,  $F_{(4,111)} = 1.326, p > 0.05$ . PCL: YV total mean score by religious groups was in the range of 9.754 to 12.338 and categorized under low scoring group (Score of 20 and below).

This non significant result was probably due to religious beliefs and practices served as protective factor to prevent adolescents involving in antisocial behaviours. Religion and religious organizations were served to promote prosocial effect and develop resilience especially for those high-risk adolescents who lacked of positive influences from external environment (Regnerus, & Elder, 2003). Next, adolescents who showed good attendance in worship services and participation in religious youth support group had importantly contributed to reduce the rate of risk-taking behaviours (Sinha, Cnaan, & Gelles, 2007).

Study by L. G. Simons, R. L. Simons, and Conger (2004) reported there was a significant association between religiosity and adolescents' perception towards deviant behaviour as morally unacceptable. As, religious adolescents were more likely than non-religious adolescents to report acts such as drinking alcohol, shoplifting, truancy, and premarital sex as morally deviant.

Moreover, a study by Kang, and Romo, (2010) revealed that personal spirituality mediated the association between church engagement and adolescent outcomes. The higher level of church engagement was associated closely to higher level of personal spirituality for adolescents. It was due to church engagement served as a place for personal spirituality to grow among adolescents. Then, church-attending adolescents were able to establish positive relationships with pastors and teachers who understood the minority adolescents' struggles and issues (Cao, 2005).

Ultimately, Muslim women developed sense of fear toward sexual intercourse as they were usually brought up under close surveillance in the sexuality issue. Muslim women held the belief to fulfill the duty of virginity and perceived that illegitimate pregnancy was strongly prohibited. The Islamic beliefs and practices shaped Muslim attitudes and behaviours which reduced the opportunities of involving in prohibited behaviours (Douki, Zineb, Nacef, & Halbreich, 2007).

*Limitations of Study*

This study made an essential contribution on the findings between antisocial behaviour in different variables such as age, sex, race and religions differences. However, there were important limitations that being found in this study.

The first limitation of this study was the five strata that being controlled only limited to Form 1- Form 5 students in terms of their race, sex and age differences. However, religious differences were not being controlled as targeted participants had been categorized unevenly in their own religious groups. It was obviously found that majority participants were belonged to the main religious groups such as (Islam, Buddhism, or Hinduism), but only small number of participants in other religious groups (Taoism or Christianity). Therefore, the minority of students in other religious groups did not meet the expected number of percentage and allocated into stratum that predetermined.

Second, this research might not able to generalize to whole population of adolescents due to poor external validity. It is because all participants are located in the similar communities and small sample size, ( $N=120$ ) that involved in this study. Thus, they might share the similar environmental characteristics in terms of cultural and racial backgrounds which might not as similar as other areas.

Third, this study was solely based on self-report survey method. Therefore, this method had its disadvantages, which subject to systematic errors, such as leniency or severity in ratings, halo effects due to positive or negative slants, logical errors, and contrast errors (Achenbach et al., 2008) which affected the reliability of items that answered.

Forth, the reliability and validity of the modified version of PCL: YV from phase form to sentence form might be affected. Although, there was pilot testing conducted before carrying out the actual testing. The modification of items was done for the purpose to match into Malaysian cultural context which might not as similar as Western cultural context.

Fifth, this research was only focusing on the demographic variables, such as age, sex, racial groups and religious groups. However, there were other variables that might affect the level of antisocial behaviour among adolescents. For example, socioeconomic status (SES), parent-child attachment styles, parental behaviour, urban or rural area, peer pressure, neighbourhood and more.

#### *Recommendations of Study*

In order to establish a good confidence level of 95%, it was essential to have adequate number of participants by reducing the rate of margin of error. Margin of error was a common summary of sampling error that measured the survey result (American Statistical Association, 1998). The formula of margin of error in a sample =  $\frac{1}{\sqrt{N}}$ ,  $N$  was the number of participants (Niles, 2006). In this study, there were only 120 participants with about 10% margin of error existed. Thus, to establish a confidence level of 95%, it was recommended for future research to conduct survey with at least 500 participants (Niles, 2006).

Future research was recommended to implement different research methods such as interview, observation, experiment, or longitudinal study for generating a more precise and accurate research findings. It was also suggested to apply different reliable instrument for assessing antisocial behaviours. For instance, Youth Self Report (YSR) by Achenbach (1991) which strongly focused on the measurement of antisocial behaviour.

Ultimately, this study was aimed to participants who located at school setting. Hence, future research is advisable to study about adolescents at the institutionalized setting as well as community setting for presenting a bigger picture about antisocial behaviour. In addition, other variables have to be taken into account such as socioeconomic status (SES), parent-child attachment styles, parental behaviour, urban or rural area, peer pressure, neighbourhood and more for gaining better understanding on the associations between these variables and antisocial behaviour among adolescents.

*Conclusion*

This study revealed that there was no significant correlation between adolescents' age (13-18 years old) and antisocial behaviour. Then, current study showed the significant difference result between sex and antisocial behaviour. Finally, there were no significant differences between racial groups (Malay, Chinese, and Indian) and antisocial behaviour; religious groups (Islam, Buddhism, Hinduism, Taoism, and Christianity) and antisocial behaviour among Malaysian adolescents.

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Appendix A

Sample of Psychopathy Checklist Revised: Youth Version (PCL: YV)



Good day. I am undergraduate students from Bachelor of Social Science (HONS) Psychology, Year 3 Trimester 1. I am conducting a Final Year Project (FYP) about **antisocial behaviour among Malaysia adolescents**. Rest assures that all your answers will be kept in confidential and will be used solely for academic purpose only. **Please answer the following items honestly and sincerely**. Thank you for your valuable time and effort.

*Selamat sejahtera. Saya penuntut Universiti Tunku Abdul Rahman (UTAR) dari kursus Bachelor of Social Science (HONS) Psychology, Tahun 3 Trimester 1. Saya sedang menjalankan Projek Akhir Tahun yang berkaitan dengan **perlakuan antisosial di kalangan remaja Malaysia**. Semua jawapan akan dirahsiakan dan untuk tujuan akademik sahaja. Sila menjawab soalan berikut dengan jujur dan tulus. Terima kasih atas masa dan usaha yang berharga.*

Please **circle** the items which best suit you.

*Sila **bulatkan** jawapan yang bersesuaian.*

**Age/ Umur:** 13/14/15/16/17/18

**Sex/ Jantina:** Male/ Female

*Lelaki/Perempuan*

**Race/Bangsa:** Malay/ Chinese/Indian/ Others, please state \_\_\_\_\_

*Melayu/ Cina/ /India/Lain-lain, sila nyatakan \_\_\_\_\_*

**Religion/Agama:** Islam/ Buddhism/ Hinduism/ Taoism/Christianity/ Others, please state \_\_\_\_\_

*Islam /Buddisme/ Hinduisme/ Taoisme/Kristian/ Lain-lain, sila nyatakan \_\_\_\_\_*

No/ <i>Tidak</i>	Maybe/ <i>Mungkin</i>	Yes/ <i>Ya</i>	Omit/ <i>Abaikan</i>	
0	1	2	X	1. I like to impress others./ <i>Saya suka mengagumkan orang lain.</i>
0	1	2	X	2. I have grandiose sense of self-worth./ <i>Saya mempunyai harga diri yang tinggi.</i>
0	1	2	X	3. I seek for exciting stimulation./ <i>Saya mencari rangsangan yang menyeronokan.</i>
0	1	2	X	4. I feel proud and pleasure to lie./ <i>Saya berasa bangga dan gembira untuk berbohong.</i>
0	1	2	X	5. I cheat others for personal gain/ <i>Saya berbohong untuk kebaikan sendiri.</i>
0	1	2	X	6. I do not feel very regret and guilty for any negative results due to my actions./ <i>Saya tidak sangat berasa kesal terhadap tindakan saya yang membawa kesan buruk.</i>
0	1	2	X	7. I am cold and unemotional./ <i>Saya mempunyai sifat yang dingin dan tiada emosi.</i>
0	1	2	X	8. I am not very concern about others' rights and feelings. <i>Saya tidak sangat prihatin terhadap emosi dan hak orang lain.</i>
0	1	2	X	9. I exploit others to fulfil own needs./ <i>Saya mempergunakan orang lain untuk menunaikan keperluan diri.</i>
0	1	2	X	10. I do not control my anger well./ <i>Saya tidak mengawal emosi kemarahan dengan baik.</i>

No/ <i>Tidak</i>	Maybe/ <i>Mungkin</i>	Yes/ <i>Ya</i>	Omit/ <i>Abaikan</i>	
0	1	2	X	11. I involve in sexual activities freely./ <i>Saya mengamalkan seks bebas.</i>
0	1	2	X	12. I have discipline problems before age 10./ <i>Saya mempunyai masalah disiplin sebelum umur 10.</i>
0	1	2	X	13. I do not plan much for my future./ <i>Saya tidak banyak merancang masa depan.</i>
0	1	2	X	14. I act without thinking of the result./ <i>Saya bertindak tanpa memikirkan kesan tindakanya.</i>
0	1	2	X	15. I am irresponsible./ <i>Saya tidak bertanggungjawab.</i>
0	1	2	X	16. I failed to accept responsibility./ <i>Saya gagal menerima tanggungjawab.</i>
0	1	2	X	17. I do not have stable relationship with others./ <i>Saya tidak mempunyai hubungan yang stabil dengan orang lain.</i>
0	1	2	X	18. I have serious criminal behaviour./ <i>Saya mempunyai kelakuan jenayah yang serius.</i>
0	1	2	X	19. I have broken the conditions set by juvenile court./ <i>Saya melanggar syarat-syarat yang ditetapkan oleh mahkamah juvenil.</i>
0	1	2	X	20. I have involved in different types of criminal behaviours./ <i>Saya terlibat dalam pelbagai jenis kelakuan jenayah.</i> Score of 0 = 3 or fewer types of criminal acts Score of 1= 4-5 different criminal acts Score of 2= at least 6 different types of criminal acts  <i>Markah 0 = 3 atau kurang jenis perbuatan jenayah</i> <i>Markah 1= 4-5 jenis berlainan perbuatan jenayah</i> <i>Markah 2= Sekurang-kurangnya 6 jenis berlainan perbuatan jenayah</i>

----☺Thank you for participation/ Terima Kasih☺----

## Appendix B

## Original Data

Age	Sex	Race	Religion	Total Score	F1 Score	F2 Score	F3 Score	F4 Score	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
13	2	1	1	10	3	1	4	1	1	2	2	0	0	1
13	2	1	1	18.7	4		3.7		2	2	1	0	0	3
13	2	1	1	10.6		2	3	1.2	2	1	2	3	3	0
13	2	1	1	5	2	0	1	2	0	2	1	0	0	0
13	1	1	1	6.3	3	1	0	1	2	1	3	0	0	0
13	1	1	1	10.6	4	1	4		1	2	3	0	3	0
13	1	1	1	24.2	2	6	5	9	1	1	3	0	0	1
13	1	1	1	17.6	2		4	3.7	1	1	1	0	0	3
14	2	1	1	18.7	3	4	5		1	1	1	1	0	3
14	2	1	1		5.3				1	2	3	3	1	3
14	2	1	1		4				1	2	3	0	1	3
14	2	1	1	18.7	3	4	5		1	1	1	1	0	3
14	1	1	1	8.4	3	0	2		1	2	0	0	0	0
14	1	1	1	23.5	5	5		7	1	2	2	1	1	1
14	1	1	1	15.6	4	2	2.5	3.7	1	2	1	0	1	1
14	1	1	1	10	3	1.3	3		1	2	1	0	0	0
15	2	1	1	20	4	4	5	5	1	1	1	1	1	1
15	2	1	1	8	3	2	2	1	1	2	1	0	0	0
15	2	1	1	6.7	4	1	1.2	0	1	2	3	3	0	0
15	2	1	1	11	5	3	2	1	1	2	1	1	1	0
15	1	1	1	8	2	2	3	1	2	0	1	0	0	0
18	1	1	1	40	8	8	10	10	2	2	2	2	2	2
15	1	1	1	9	4	1	2	2	2	1	0	0	1	0

Antisocial behaviour among 58

Item7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Sample
0	0	0	1	1	0	1	1	0	0	0	0	0	0	1
0	3	0	3	2	0	2	3	0	2	0	3	2	1	1
0	2	0	0	3	0	1	0	0	0	0	3	0	1	1
0	0	0	0	0	2	0	0	0	0	3	0	0	0	1
1	0	0	0	0	0	0	0	0	0	1	0	1	0	1
0	1	1	0	1	0	0	2	1	0	0	0	3	3	1
2	1	2	2	1	2	2	1	0	2	1	2	1	2	1
1	3	2	1	2	1	0	1	0	2	1	1	0	3	1
0	0	0	2	3	3	1	1	1	1	1	3	3	3	1
3	3	1	1	3	3	3	3	1	1	1	3	3	3	1
3	3	3	1	3	3	0	1	0	0	0	3	3	3	1
1	1	1	2	3	3	1	1	1	1	1	3	3	3	1
0	0	0	1	0	0	1	0	1	3	1	3	3	3	1
2	1	3	1	3	1	1	3	3	1	3	2	2	1	1
0	1	1	0	2	3	3	1	3	0	1	1	1	1	1
1	0	0	1	0	0	2	1	0	3	0	3	3	3	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	0	1	0	0	1	0	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1	0	0	1	0	0	0	1
1	1	0	1	0	0	0	1	0	1	0	0	0	0	1
1	1	0	1	0	0	1	0	1	0	0	0	0	0	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
0	1	0	1	0	0	1	1	0	0	0	0	0	1	1

Antisocial behaviour among 59

Age	Sex	Race	Religion	Total Score	F1 Score	F2 Score	F3 Score	F4 Score	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
16	1	1	1	18	4	4	7	2	1	1	2	2	0	1
17	1	1	4	13	5	2	3	1	2	2	2	1	0	0
16	1	1	1	9.5	3	0	1	5	1	1	1	0	1	0
17	2	1	1	7	1	0	5	1	0	1	2	0	0	0
16	2	1	1	9.5	2	1.3	4	2	1	1	2	0	0	3
16	2	1	1	8.9	3	1.3	2.5	2	2	1	3	0	0	3
16	2	1	1	6	2	2	2	0	0	2	1	0	0	0
16	1	1	1	11	2	4	4	0	1	1	2	0	0	0
17	1	1	4	13	5	2	3	1	2	2	2	1	0	0
17	1	1	4	8	4	2	2	0	2	2	2	0	0	1
18	1	1	1	14	5	3	3	1	2	2	2	1	0	1
	2	1	4	5	4	0	0	1	1	2	0	0	1	0
17	2	1	1	6	3	1	2	0	1	2	2	0	0	0
17	2	1	1	6	4	1	1	0	2	2	1	0	0	0
	2	1	1	6	3	1	2	0	1	2	2	0	0	0
	1	1	1	8	3	2	3	0	2	1	2	0	0	0
13	1	2	2	10.5	4	0	3	2	2	2	2	3	0	3
13	1	2	2	6	4	0	2	0	2	2	2	0	0	0
13	2	2	2	6	3	0	2	1	1	2	2	0	0	0
13	2	2	2	6	4	1	1	0	2	2	1	0	0	0
13	1	2	2	7	4	0	2	1	2	2	2	0	0	0
13	1	2	2	7	4	0	2	1	2	2	2	0	0	0
13	2	2	2	6	4	0	2	0	2	2	2	0	0	0
13	2	2	2	5	4	0	1	0	2	2	1	0	0	0
14	2	2	2	13	4	1	3	3	1	2	2	0	1	0
14	1	2	2	19	5	4	6	4	2	2	2	0	1	0

Antisocial behaviour among 60

Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Sample
1	1	2	1	1	1	1	1	1	1	0	0	0	0	1
1	1	0	0	0	0	1	0	0	0	2	0	1	0	1
0	0	0	2	0	1	0	0	0	0	1	0	1	3	1
0	0	2	1	0	0	0	0	1	0	0	0	0	0	1
0	1	1	2	0	0	0	1	0	0	0	0	0	0	1
0	1	1	2	0	0	0	1	0	0	0	0	0	0	1
1	0	0	0	0	0	1	0	0	1	0	0	0	0	1
1	2	0	0	0	0	0	1	1	1	1	0	0	0	1
1	1	0	0	0	0	1	0	0	0	2	0	1	0	1
1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	1	0	0	0	0	1	0	0	0	2	0	1	0	1
0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	1	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	2	0	0	0	1	0	0	1	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	0	1	1	0	0	0	0	0	0	2	2	0	0	2

Antisocial behaviour among 61

Age	Sex	Race	Religion	Total Score	F1 Score	F2 Score	F3 Score	F4 Score	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
13	1	2	2	7	4	0	2	1	2	2	2	0	0	0
13	2	2	2	6	4	0	2	0	2	2	2	0	0	0
13	2	2	2	5	4	0	1	0	2	2	1	0	0	0
14	2	2	2	13	4	1	3	3	1	2	2	0	1	0
14	1	2	2	19	5	4	6	4	2	2	2	0	1	0
14	2	2	2	10.5	1.3	4	3	2	0	3	2	0	0	2
14	1	2	2	10	5	2	1	2	2	2	0	0	1	1
14	1	2	2	15.8	6	3	5	1.2	2	2	2	0	2	0
14	2	2	2	7.4	2	3	0	1	0	2	3	0	0	0
14	2	2	2	9	3	1	4	1	2	1	2	0	0	0
14	1	2	2	22.1	6	4	7	2.5	2	2	2	0	2	0
15	1	2	2	14.74	4	4	6.2	1	1	2	2	0	1	1
15	1	2	2	11.8	4	2	2		0	2	2	3	1	0
15	1	2	2	9.5	5	0	1.2	3	2	2	1	0	1	0
15	1	2	2	10	4	1	3	2	2	1	1	0	1	0
15	2	2	2	11	4	1	4	2	1	2	2	0	1	0
15	2	2	2	18.8		6	7.5	2	0	3	3	0	3	0
15	2	2	2	8	3	1	3	1	2	1	2	0	0	1
13	2	2	5	10	3	0	4	2	1	2	0	0	0	0
16	1	2	2	8	4	2	2	0	2	2	1	0	0	2
16	1	2	2	17.9	5.3	5	3.7	3	2	1	3	1	3	2
16	1	2	2	20	7	4	4	3	2	2	2	1	2	2
16	1	2	2	15	6	5	4	0	2	2	1	2	0	1
17	1	2	2	16.7	3	5	2.5	3.7	2	1	3	0	0	2
16	2	2	2	8.4	3	3	2	0	1	2	2	0	0	1
16	2	2	2	8	4	3	1	0	2	2	1	0	0	0
16	2	2	2	11	3	3	2	2	1	2	2	0	0	1



Antisocial behaviour among 62

Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Sample
0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	0	1	1	0	0	0	0	0	0	2	2	0	0	2
2	0	0	2	0	2	2	2	0	2	0	0	0	0	2
0	0	0	2	0	0	1	0	0	2	0	0	0	0	2
1	0	0	2	0	0	0	1	0	0	0	0	0	0	2
1	2	0	1	0	0	1	0	2	0	0	0	3	0	2
2	0	0	1	0	0	0	0	0	1	1	0	0	0	2
1	0	0	1	0	0	0	0	2	0	0	0	0	0	2
2	2	0	2	0	0	1	2	2	0	2	0	3	0	2
0	2		1	0	0	0	2	1	1	3	0	0	0	2
2	0	0	2	3	0	0	0	0	0	0	3	1	3	2
0	0	0	2	0	1	1		0	0	0	0	0	0	2
0	0	1	2	0	0	0	1	0	1	0	0	0	0	2
0	0	0	2	0	0	0	1	1	1	0	0	0	0	2
2	2	0	2	0	0	2	2	2	2	2	0	0	0	2
0	0	0	1	0	0	1	0	0	0	1	0	0	0	2
0	0	0	2	0	0	2	1	1	0	1	0	0	0	2
0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
2	0	0	2	0	0	1	2	0	1	2	0	1	0	2
1	0	0	2	0	0	0	2	0	1	2	0	1	0	2
2	2	1	0	0	0	2	0	0	0	0	0	0	0	2
2	0	0	2	0	0	0	2	0	1	2	0	1	3	2
1	1	0	3	0	0	0	0	0	0	0	0	0	0	2
1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
1	1	0	2	0	0	0	0	0	0	1	0	0	0	2

Antisocial behaviour among 63

Age	Sex	Race	Religion	Total Score	F1 Score	F2 Score	F3 Score	F4 Score	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
17	1	2	2	17	5	4	6	2	2	1	2	0	2	0
16	2	2	2	10	2	3	4	1	0	2	2	0	0	0
17	1	2	2	15	4	3	4	4	2	1	2	1	0	1
17	1	2	2	9	3	2	2	2	1	2	2	0	0	0
17	2	2	2	13	4	5	3	1	2	2	1	0	0	2
17	1	2	2	11	3	1	4	2	1	2	2	0	0	1
17	2	2	2	11	3	2	2	3	1	2	1	0	0	0
17	2	2	2	10	4	2	1	2	2	2	1	0	0	0
13	1	3	3	6	3	1	2	0	1	2	2	0	0	0
13	1	3	3	14	6	1	4	3	2	2	0	1	1	0
13	1	3	3	15.3	6	2.6	5	1.2	2	2	0	1	1	0
13	1	3	3	10.5	6.6	3	2	0	2	2	0	3	1	0
13	2	3	3	11	4	2	4	0	1	2	1	0	1	0
13	2	3	3	12.2	8	2	1.2	2	2	2	3	3	2	0
13	2	3	3	11	4	3	3	1	1	2	0	0	1	1
13	2	3	3	7.4	4	1	2	0	0	2	0	0	2	0
14	1	3	3	6	3	1	1	1	1	2	0	0	0	0
14	1	3	3	8.4	1	1	3	2.5	0	1	2	0	0	0
14	2	3	3	6	2	0	2	0	0	2	2	0	0	0
14	2	3	3	4	2	0	1	1	0	2	1	0	0	0
14	2	3	3	5	3	0	2	0	1	2	2	0	0	0
14	1	3	3	21	4	3	4	7	1	1	1	1	1	0
14	2	3	3	8	5	0	1	1	2	2	1	0	1	0
14	1	3	3	2	2	0	0	0	0	2	0	0	0	0
15	1	3	3	15.3	4	1.3	6.2	3.7	1	2	1	0	1	0
15	2	3	3	8	3	1	3	1	0	2	0	0	1	0
15	2	3	3	9.5	4	1	3	0	1	2	1	0	1	0

Antisocial behaviour among 64

Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Sample
1	2	1	2	0	0	1	1	1	1	0	0	0	0	2
1	2	0	1	0	0	2	0	0	0	0	0	0	0	2
2	0	1	2	0	2	1	0	0	0	0	0	0	0	2
2	0	0	2	3	0	0	0	0	0	0	0	0	0	2
2	1	0	1	0	0	0	2	0	0	0	0	0	0	2
0	0	0	1	0	1	2	0	0	0	1	0	0	0	2
2	0	0	2	0	0	0	0	1	0	1	1	0	0	2
1	0	0	2	0	0	0	0	0	1	1	0	0	0	2
1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	0	1	2	0	1	0	2	1	1	0	0	0	0	3
1	1	3	1	0	0	2	1	1	3	0	0	0	3	3
1	1	0	0	0	0	0	1	1	1	3	0	0	0	3
1	1	0	0	0	0	2	1	0	0	1	0	0	0	3
1	1	0	2	0	0	0	1	0	0	0	0	0	0	3
0	1	0	1	0	0	1	1	1	1	3	0	0	0	3
0	1	0	0	0	0	1	1	0	0	0	0	0	3	3
0	0	0	0	0	0	0	1	0	1	0	0	0	1	3
0	0	0	2	0	0	0	0	1	1	1	0	0	3	3
0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1	1	1	2	1	1	1	0	1	1	2	1	2	1	3
0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	3	3	2	0	1	1	2	1	1	0	0	0	3	3
1	0	1	1	0	0	1	1	0	0	0	0	0	0	3
1	0	0	0	0	0	1	1	0	0	1	0	0	3	3

Antisocial behaviour among 65

Age	Sex	Race	Religion	Total Score	F1 Score	F2 Score	F3 Score	F4 Score	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
15	1	3	3	7	3	1	2	0	1	2	2	0	0	0
15	1	3	3	17.9	4	3	8	1.2	2	2	2	0	0	1
15	1	3	3	11	3	2	4	2	1	2	2	0	0	0
15	2	3	3	7	3	1	1	1	1	2	0	0	0	0
15	2	3	3		3				1	2	3	0	0	3
16	2	3	3	9.4	3	1	3		1	2	2	0	0	0
16	2	3	3	8	4	1	2	1	2	2	2	0	0	0
16	2	3	3	3.3	2	0	1		1	1	1	0	0	0
16	2	3	3	5	2	0	2		0	2	2	0	0	0
16	1	3	3	8.9	4	0	3		2	2	2	0	0	0
16	1	3	3	10.6	4	1	3		2	2	2	0	0	0
16	1	3	3	8	3	0	2.5		1	2	2	0	0	0
16	1	3	3	11.8	5	2	3		1	2	2	1	1	1
17	2	3	3	6	4	0	2	0	2	2	2	0	0	0
17	2	3	3	11.3	4	1.3	5		2	2	1	0	0	0
17	2	3	3	11.6	5	1	3	2.5	2	2	2	0	1	0
17	2	3	3	10.7		0	3		2	2	2	3	3	3
17	1	3	3	8.4	3	1	2.5		2	1	1	0	0	0
17	1	3	3	8.4		1.3	2	0	2	2	1	3	3	3
17	1	3	3	18.9	6	4	6	1.2	2	2	2	1	1	1
17	1	3	3		5.3	2.6			2	2	2	3	0	0

Antisocial behaviour among 66

Item 7	Item 8	Item 9	Item10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Sample
0	0	0	0	0	0	0	0	0	1	1	0	0	0	3
1	1	2	0	0	0	2	1	1	0	1	1	0	3	3
1	1	0	1	0	1	1	1	0	0	0	0	0	0	3
0	0	0	1	0	0	0	1	0	1	1	0	0	0	3
0	3	0	1	0	0	3	0	0	3	1	0	0	3	3
0	1	1	1	0	0	0	0	0	0	0	3	3	3	3
0	1	0	0	0	1	0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
0	0	0	0	0	3	0	0	0	0	0	3	3	3	3
0	0	1	1	0	3	0	0	0	0	0	0	0	3	3
0	1	1	1	0	0	0	0	0	0	0	3	3	3	3
0	0	3	0	0	3	0	0	0	0	1	3	3	3	3
0	1	1	0	0	0	0	0	0	0	0	3	3	3	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
0	3	3	3	0	0	1	1	1	1	0	0	0	3	3
0	1	0	2	0	0	0	1	0	0	0	0	0	3	3
0	0	1	1	0	0	0	0	0	0	0	3	3	3	3
0	0	3	3	0	0	1	0	0	1	1	0	3	3	3
0	0	0	0	0	0	0	0	1	1	0	0	0	3	3
1	1	1	1	0	0	1	1	1	1	1	0	0	3	3
1	1	1	0	3	3	3	3	3	3	3	3	3	3	3

Sex 1= Male; 2= Female

Race 1=Chinese; 2=Indian; 3=Malay

Religion 1=Buddhist; 2=Hinduism; 3=Islam; 4=Taoism; 5=Christianity

Sample 1=SMJK Krian; 2=SMK Methodist; 3=SMK Panglima Bukit Gantang

Appendix C

SPSS Output: Pilot Testing Result

**Means**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \pilot testing.sav

---

<b>Case Processing Summary</b>						
	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Totalscore * Sample	60	100.0%	0	.0%	60	100.0%

---



---

<b>Report</b>			
Totalscore			
Sample	Mean	N	Std. Deviation
First pilot testing	10.670	30	6.3927
Second pilot testing	11.270	30	5.7110
Total	10.970	60	6.0175

---

Appendix D

SPSS Output: Frequency table of Age

**Frequencies**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Statistics**

Participants' age

N	Valid	117
	Missing	3

**Participants' age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13	25	20.8	21.4	21.4
	14	24	20.0	20.5	41.9
	15	22	18.3	18.8	60.7
	16	22	18.3	18.8	79.5
	17	22	18.3	18.8	98.3
	18	2	1.7	1.7	100.0
	Total	117	97.5	100.0	
Missing	System	3	2.5		
Total		120	100.0		

Appendix E

SPSS Output: Frequency Table of Sex

**Frequencies**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Statistics**

Participants' sex

N	Valid	120
	Missing	0

**Participants' sex**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	61	50.8	50.8	50.8
	Female	59	49.2	49.2	100.0
	Total	120	100.0	100.0	



Appendix F

SPSS Output: Frequency Table of Race

**Frequencies**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

<b>Statistics</b>		
<b>Participants' race</b>		
N	Valid	120
	Missing	0

<b>Participants' race</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	40	33.3	33.3	33.3
	Indian	40	33.3	33.3	66.7
	Malay	40	33.3	33.3	100.0
	Total	120	100.0	100.0	

Appendix G

SPSS Output: Frequency Table of Religion

**Frequencies**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

<b>Statistics</b>		
<b>Participants' religion</b>		
N	Valid	120
	Missing	0

<b>Participants' religion</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Buddhist	36	30.0	30.0	30.0
	Hinduism	39	32.5	32.5	62.5
	Islamic	40	33.3	33.3	95.8
	Taoism	4	3.3	3.3	99.2
	Christianity	1	.8	.8	100.0
	Total	120	100.0	100.0	

## Appendix H

## SPSS Output: Frequency Table of Item Scores

**Frequencies**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**I like to impress others**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	15	12.5	12.5	12.5
	Maybe	49	40.8	40.8	53.3
	Yes	56	46.7	46.7	100.0
	Total	120	100.0	100.0	

**I have grandiose sense of self-worth**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	.8	.8	.8
	Maybe	27	22.5	22.5	23.3
	Yes	90	75.0	75.0	98.3
	Omit	2	1.7	1.7	100.0
	Total	120	100.0	100.0	

**I seek for exciting stimulation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	14	11.7	11.7	11.7
	Maybe	35	29.2	29.2	40.8
	Yes	58	48.3	48.3	89.2

	Omit	13	10.8	10.8	100.0
	Total	120	100.0	100.0	

**I feel proud and pleasure to lie**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	91	75.8	75.8	75.8
	Maybe	16	13.3	13.3	89.2
	Yes	3	2.5	2.5	91.7
	Omit	10	8.3	8.3	100.0
	Total	120	100.0	100.0	

**I cheat others for personal gain**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	77	64.2	64.2	64.2
	Maybe	30	25.0	25.0	89.2
	Yes	7	5.8	5.8	95.0
	Omit	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

**I do not feel very regret and guilty for any negative results due to my actions**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	81	67.5	67.5	67.5
	Maybe	20	16.7	16.7	84.2
	Yes	7	5.8	5.8	90.0
	Omit	12	10.0	10.0	100.0
	Total	120	100.0	100.0	

**I am cold and unemotional**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	59	49.2	49.2	49.2
	Maybe	44	36.7	36.7	85.8
	Yes	15	12.5	12.5	98.3
	Omit	2	1.7	1.7	100.0
Total		120	100.0	100.0	

**I am not very concern about others' rights and feelings**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	66	55.0	55.0	55.0
	Maybe	36	30.0	30.0	85.0
	Yes	11	9.2	9.2	94.2
	Omit	7	5.8	5.8	100.0
Total		120	100.0	100.0	

**I exploit others to fulfil own needs**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	83	69.2	69.7	69.7
	Maybe	23	19.2	19.3	89.1
	Yes	6	5.0	5.0	94.1
	Omit	7	5.8	5.9	100.0
Total		119	99.2	100.0	
Missing	System	1	.8		
Total		120	100.0		

**I do not control my anger well**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	42	35.0	35.0	35.0
	Maybe	41	34.2	34.2	69.2
	Yes	33	27.5	27.5	96.7
	Omit	4	3.3	3.3	100.0
Total		120	100.0	100.0	

**I involve in sexual activities freely**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	101	84.2	84.2	84.2
	Maybe	6	5.0	5.0	89.2
	Yes	4	3.3	3.3	92.5
	Omit	9	7.5	7.5	100.0
Total		120	100.0	100.0	

**I have discipline problems before age 10**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	94	78.3	78.3	78.3
	Maybe	12	10.0	10.0	88.3
	Yes	5	4.2	4.2	92.5
	Omit	9	7.5	7.5	100.0
Total		120	100.0	100.0	

**I do not plan much for my future**

		Frequency	Percent	Valid Percent
Valid	No	69	57.5	57.5
	Maybe	34	28.3	28.3
	Yes	13	10.8	10.8
	Omit	4	3.3	3.3
	Total	120	100.0	100.0

**I act without thinking of the result**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	65	54.2	54.6	54.6
	Maybe	38	31.7	31.9	86.6
	Yes	12	10.0	10.1	96.6
	Omit	4	3.3	3.4	100.0
	Total	119	99.2	100.0	
Missing	System	1	.8		
Total		120	100.0		

**I am irresponsible**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	85	70.8	70.8	70.8
	Maybe	27	22.5	22.5	93.3
	Yes	5	4.2	4.2	97.5
	Omit	3	2.5	2.5	100.0
	Total	120	100.0	100.0	

**I failed to accept responsibility**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	76	63.3	63.3	63.3

	Maybe	32	26.7	26.7	90.0
	Yes	7	5.8	5.8	95.8
	Omit	5	4.2	4.2	100.0
	Total	120	100.0	100.0	

**I do not have stable relationship with others**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	70	58.3	58.3	58.3
	Maybe	32	26.7	26.7	85.0
	Yes	12	10.0	10.0	95.0
	Omit	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

**I have serious criminal behaviour**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	94	78.3	78.3	78.3
	Maybe	6	5.0	5.0	83.3
	Yes	4	3.3	3.3	86.7
	Omit	16	13.3	13.3	100.0
	Total	120	100.0	100.0	

**I have broken the condition set by juvenile court**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	86	71.7	71.7	71.7
	Maybe	12	10.0	10.0	81.7
	Yes	4	3.3	3.3	85.0
	Omit	18	15.0	15.0	100.0
	Total	120	100.0	100.0	



## Antisocial behaviour among 78

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	78	65.0	65.0	65.0
	Maybe	8	6.7	6.7	71.7
	Yes	2	1.7	1.7	73.3
	Omit	32	26.7	26.7	100.0
	Total	120	100.0	100.0	

Appendix I

SPSS Output: Frequency Table of Factor Scores

**Frequency Table**

<b>Factor 1 Interpersonal</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1.7	1.7	1.7
	1.3	1	.8	.9	2.6
	2	14	11.7	12.1	14.7
	3	34	28.3	29.3	44.0
	4	40	33.3	34.5	78.4
	5	12	10.0	10.3	88.8
	5.3	3	2.5	2.6	91.4
	6	6	5.0	5.2	96.6
	6.6	1	.8	.9	97.4
	7	1	.8	.9	98.3
	8	2	1.7	1.7	100.0
	Total	116	96.7	100.0	
Missing	System	4	3.3		
Total		120	100.0		

<b>Factor 2 Affective</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	25	20.8	21.7	21.7
	1	30	25.0	26.1	47.8
	1.3	6	5.0	5.2	53.0
	2	19	15.8	16.5	69.6
	2.6	2	1.7	1.7	71.3
	3	13	10.8	11.3	82.6
	4	12	10.0	10.4	93.0

Antisocial behaviour among 80

	5	5	4.2	4.3	97.4
	6	2	1.7	1.7	99.1
	8	1	.8	.9	100.0
	Total	115	95.8	100.0	
Missing	System	5	4.2		
Total		120	100.0		

**Factor 3 Behavioural**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	3.3	3.5	3.5
	1	13	10.8	11.3	14.8
	1.2	3	2.5	2.6	17.4
	2	29	24.2	25.2	42.6
	2.5	5	4.2	4.3	47.0
	3	24	20.0	20.9	67.8
	3.7	2	1.7	1.7	69.6
	4	17	14.2	14.8	84.3
	5	8	6.7	7.0	91.3
	6	3	2.5	2.6	93.9
	6.2	2	1.7	1.7	95.7
	7	2	1.7	1.7	97.4
	7.5	1	.8	.9	98.3
	8	1	.8	.9	99.1
	10	1	.8	.9	100.0
	Total	115	95.8	100.0	
Missing	System	5	4.2		
Total		120	100.0		

**Factor 4 Antisocial**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	27	22.5	27.3	27.3
	1	27	22.5	27.3	54.5
	1.2	5	4.2	5.1	59.6
	2	19	15.8	19.2	78.8
	2.5	3	2.5	3.0	81.8
	3	6	5.0	6.1	87.9
	3.7	4	3.3	4.0	91.9
	4	2	1.7	2.0	93.9
	5	2	1.7	2.0	96.0
	7	2	1.7	2.0	98.0
	9	1	.8	1.0	99.0
	10	1	.8	1.0	100.0
	Total	99	82.5	100.0	
Missing	System	21	17.5		
Total		120	100.0		

Appendix J

SPSS Output: Frequency Table of Total Scores

**Frequencies**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Statistics**

Totalscore		
N	Valid	116
	Missing	4

Total Score					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.8	.9	.9
	3.3	1	.8	.9	1.7
	4	1	.8	.9	2.6
	5	5	4.2	4.3	6.9
	6	12	10.0	10.3	17.2
	6.3	1	.8	.9	18.1
	6.7	1	.8	.9	19.0
	7	5	4.2	4.3	23.3
	7.4	2	1.7	1.7	25.0
	8	11	9.2	9.5	34.5
	8.4	5	4.2	4.3	38.8
	8.9	2	1.7	1.7	40.5
	9	4	3.3	3.4	44.0
	9.4	1	.8	.9	44.8
	9.5	4	3.3	3.4	48.3
	10	7	5.8	6.0	54.3
	10.5	3	2.5	2.6	56.9

Antisocial behaviour among 83

	10.6	3	2.5	2.6	59.5
	10.7	1	.8	.9	60.3
	11	9	7.5	7.8	68.1
	11.3	1	.8	.9	69.0
	11.6	1	.8	.9	69.8
	11.8	2	1.7	1.7	71.6
	12.2	1	.8	.9	72.4
	13	4	3.3	3.4	75.9
	14	2	1.7	1.7	77.6
	14.74	1	.8	.9	78.4
	15	2	1.7	1.7	80.2
	15.3	2	1.7	1.7	81.9
	15.6	1	.8	.9	82.8
	15.8	1	.8	.9	83.6
	16.7	1	.8	.9	84.5
	17	1	.8	.9	85.3
	17.6	1	.8	.9	86.2
	17.9	2	1.7	1.7	87.9
	18	1	.8	.9	88.8
	18.7	3	2.5	2.6	91.4
	18.8	1	.8	.9	92.2
	18.9	1	.8	.9	93.1
	19	1	.8	.9	94.0
	20	2	1.7	1.7	95.7
	21	1	.8	.9	96.6
	22.1	1	.8	.9	97.4
	23.5	1	.8	.9	98.3
	24.2	1	.8	.9	99.1
	40	1	.8	.9	100.0
	Total	116	96.7	100.0	
Missing	System	4	3.3		
Total		120	100.0		

Appendix K

SPSS Output: Frequency Table of Total Scores by Age

**Means**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Totalscore * Participants' age	113	94.2%	7	5.8%	120	100.0%

**Report**

Totalscore			
Participants' age	Mean	N	Std. Deviation
13	10.156	25	4.8092
14	11.914	22	6.3606
15	11.011	21	4.0159
16	10.282	22	4.1576
17	11.000	21	3.7280
18	27.000	2	18.3848
Total	11.137	113	5.3981

Appendix L

SPSS Output: Frequency Table by Sex

**Means**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Totalscore * Participants' sex	116	96.7%	4	3.3%	120	100.0%

**Report**

Totalscore			
Participants			
' sex	Mean	N	Std. Deviation
Male	12.652	60	6.0672
Female	9.255	56	3.8837
Total	11.012	116	5.3857



Appendix M

SPSS Output: Frequency Table of Total Scores by Race

**Means**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Totalscore * Participants' race	116	96.7%	4	3.3%	120	100.0%

**Report**

Totalscore			
Participants'			
race	Mean	N	Std. Deviation
Chinese	12.066	38	6.9913
Indian	11.378	40	4.3781
Malay	9.574	38	4.2026
Total	11.012	116	5.3857

Appendix N

SPSS Output: Frequency Table of Total Score by Religion

**Means**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Totalscore * Participants' religion	116	96.7%	4	3.3%	120	100.0%

**Report**

Totalscore			
Participants'			
religion	Mean	N	Std. Deviation
Buddhist	12.338	34	7.2567
Hinduism	11.414	39	4.4296
Islamic	9.574	38	4.2026
Taoism	9.750	4	3.9476
Christianity	10.000	1	.
Total	11.012	116	5.3857

## Appendix O

## SPSS Output: Pearson Correlation of Age and Antisocial Behaviour

**Correlations**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

<b>Correlations</b>			
		Totalscore	Participants' age
Totalscore	Pearson Correlation	1	.114
	Sig. (2-tailed)		.227
	N	116	113
Participants' age	Pearson Correlation	.114	1
	Sig. (2-tailed)	.227	
	N	113	117

Appendix P

SPSS Output: T-test of Sex and Antisocial Behaviour

**T-Test**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

**Group Statistics**

Participants					
'sex	N	Mean	Std. Deviation	Std. Error Mean	
Totalscore	Male	60	12.652	6.0672	.7833
	Female	56	9.255	3.8837	.5190

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Totalscore	Equal variances assumed	7.573	.007	3.563	114	.001	3.3970	.9534	1.5083	5.2856
	Equal variances not assumed			3.615	101.243	.000	3.3970	.9396	1.5331	5.2609

Appendix Q

SPSS Output: ONE-WAY ANOVA of Race and Antisocial Behaviour

**Oneway**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
 \fyp.sav

Totalscore	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	126.183	2	63.092	2.221	.113
Within Groups	3209.516	113	28.403		
Total	3335.700	115			

## Appendix R

## SPSS Output: ONE-WAY ANOVA of Religion and Antisocial Behaviour

**Oneway**

[DataSet1] C:\Users\Public\Documents\gRac3\FYP\Chapter\FINAL\Appendix & others\SPSS  
\fyp.sav

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<b>ANOVA</b>					
Totalscore	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	152.108	4	38.027	1.326	.265
Within Groups	3183.592	111	28.681		
Total	3335.700	115			

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Appendix S

Antisocial Behaviour List

Research, Development and Statistics Typology of Antisocial Behaviour

Misuse of public space	Disregard for community/personal well-being	Acts directed at people	Environmental change
<p><i>Drug/Substance misuse &amp; dealing</i></p> <ul style="list-style-type: none"> <li>-Taking drugs</li> <li>-Sniffing volatile substances</li> <li>-Discarding needles/drug paraphernalia</li> <li>Crack houses</li> <li>-Presence of dealers or users</li> </ul>	<p><i>Noise</i></p> <ul style="list-style-type: none"> <li>-Noisy neighbours</li> <li>-Noisy cars/motorbikes</li> <li>-Loud music</li> <li>-Alarms (persistent ringing/malfunction)</li> <li>-Noise from pubs/clubs</li> <li>-Noise from business/industry</li> </ul>	<p><i>Intimidation/harassment</i></p> <ul style="list-style-type: none"> <li>-Groups or individuals making threats</li> <li>-Verbal abuse</li> <li>-Bullying</li> <li>-Following people</li> <li>-Pestering people</li> <li>-Voyeurism</li> <li>-Sending nasty letters</li> <li>-Obscene/nuisance phone calls</li> <li>-Menacing gestures</li> </ul>	<p><i>Criminal damage/vandalism</i></p> <ul style="list-style-type: none"> <li>-Graffiti</li> <li>-Damage to bus shelters/phone kiosks/street furniture/buildings/trees/Plants/hedges</li> </ul>
<p><i>Street drinking</i></p>	<p><i>Rowdy behaviour</i></p> <ul style="list-style-type: none"> <li>-Shouting &amp; swearing</li> <li>-Fighting</li> <li>-Drunken behaviour</li> <li>-Hooliganism/loutish behaviour</li> </ul>	<p><i>Can be on the grounds of:</i></p> <ul style="list-style-type: none"> <li>-Race</li> <li>-Sexual orientation</li> <li>-Gender</li> <li>-Religion</li> <li>-Disability</li> <li>-Age</li> </ul>	<p><i>Litter/rubbish</i></p> <ul style="list-style-type: none"> <li>-Dropping litter</li> <li>-Dumping rubbish</li> <li>-Fly-tipping</li> <li>-Fly-posting</li> </ul>
<p><i>Begging</i></p>	<p><i>Nuisance behaviour</i></p> <ul style="list-style-type: none"> <li>-Urinating in public</li> <li>-Setting fires (not directed at specific persons or property)</li> <li>-Inappropriate use of fireworks</li> <li>-Throwing missiles</li> <li>-Climbing on buildings</li> <li>-Impeding access to communal areas</li> <li>-Games in restricted/inappropriate areas</li> <li>-Misuse of air guns</li> <li>-Letting down tyres</li> </ul>		
<p><i>Prostitution</i></p> <ul style="list-style-type: none"> <li>-Soliciting</li> <li>-Discarded condoms</li> </ul>	<p><i>Hoax calls</i></p> <ul style="list-style-type: none"> <li>-False calls to emergency services</li> </ul>		
<p><i>Kerb crawling</i></p> <ul style="list-style-type: none"> <li>-Loitering</li> <li>-Pestering residents</li> </ul>	<p><i>Animal-related problems</i></p> <ul style="list-style-type: none"> <li>-Uncontrolled animals</li> </ul>		
<p><i>Sexual acts</i></p> <ul style="list-style-type: none"> <li>-Inappropriate sexual conduct</li> <li>-Indecent exposure</li> </ul>			
<p><i>Abandoned cars</i></p>			

<i>Vehicle-related nuisance &amp; inappropriate vehicle use</i> -Inconvenient/illegal parking -Car repairs on the street/in gardens -Setting vehicles alight -Joyriding -Racing cars Off-road motorcycling			
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Source: Research Development and Statistics Directorate



## Appendix T

## Item Descriptions

Item	Descriptions
1. I like to impress others	Adolescents' interactional styles were insincere and shallow by telling unlikely but convincing stories that place themselves as superior.
2. I have grandiose sense of self-worth	Adolescents had exaggerated regard for their abilities and lack of embarrassment about their current negative issues
3. I seek for exciting stimulation	Adolescents expressed a strong need in taking opportunities in engaging in exciting and risky behaviours.
4. I feel proud and pleasure to lie	Adolescents who telling lie and deceiving others as a part for their interaction.
5. I cheat others for personal gain	Adolescents used deception to cheat, exploit or manipulate others for personal gain (money, sex, status, power and others).
6. I do not feel very regret and guilty for any negative results due to my actions	Adolescents showed lacking of concern for the negative result of their actions, either criminal or non-criminal.
7. I am cold and unemotional	Adolescents who appeared unable to experience a normal range of emotions which their emotions might not be consistent with their actions.
8. I am not very concern about others' rights and feelings.	Adolescents disregard for the feelings, rights and welfare of others.
9. I exploit others to fulfil own needs	Adolescents who exploited others by using threats which served as intentional lifestyle component.
10. I do not control my anger well	Adolescents easily get irritated and frustrated and responded the feelings with violent behaviour or verbal abuse.
11. I involve in sexual activities freely	Adolescents who formed sexual relations with others were impersonal and might engage in sexual aggressive behaviours.
12. I have discipline problems before age 10	Adolescents had severe behavioural problems during childhood period. The problems might be substance abuse, robbery, bullying and others.
13. I do not plan much for my future	Adolescents' lacked of ability and willingness to carry out planning and commitments.
14. I act without thinking of the result	Adolescents were unlikely to spend time considering about the possible impacts of their actions.
15. I am irresponsible	Adolescents were unable to fulfil their obligations and commitment to others.
16. I failed to accept responsibility	Adolescents failed to accept any personal responsibility as a result of their actions, either criminal or noncriminal.
17. I do not have stable relationship with others	Adolescents had unstable sexual or nonsexual relationship and unable to maintain it.
18. I have serious criminal behaviour	Adolescents had involvement in severe criminal behaviours.

19. I have broken the conditions set by juvenile court	Adolescents had committed serious violations of conditional release from a secure institution
20. I have involved in different types of criminal behaviours	Adolescents have engaged in various criminal behaviours

Source: Forth, Kosson and Hare, 2003.

## Appendix U

## Modified Items

Phrase Form	Sentence Form
Impression Management	I like to impress others. <i>Saya suka mengagumkan orang lain.</i>
Grandiose Sense of Self-Worth	I have grandiose sense of self-worth. <i>Saya mempunyai harga diri yang tinggi.</i>
Stimulation Seeking	I seek for exciting stimulation. <i>Saya mencari rangsangan yang menyeronokan.</i>
Pathological Lying	I feel proud and pleasure to lie. <i>Saya berasa bangga dan gembira untuk berbohong.</i>
Manipulation for Personal Gain	I cheat others for personal gain. <i>Saya berbohong untuk kebaikan sendiri.</i>
Lack of Remorse	I do not feel very regret and guilty for any negative results due to my actions. <i>Saya tidak sangat berasa kesal terhadap tindakan saya yang membawa kesan buruk.</i>
Shallow Effect	I am cold and unemotional. <i>Saya mempunyai sifat yang dingin dan tiada emosi.</i>
Callous/ Lack of Empathy	I am not very concern about others' rights and feelings. <i>Saya tidak sangat prihatin terhadap emosi dan hak orang lain.</i>
Parasitic Orientation	I exploit others to fulfil own needs. <i>Saya mempergunakan orang lain untuk menunaikan keperluan diri.</i>
Poor Anger Control	I do not control my anger well. <i>Saya tidak mengawal emosi kemarahan dengan baik.</i>
Impersonal Sexual Behaviour	I involve in sexual activities freely. <i>Saya mengamalkan seks bebas.</i>
Early Behaviour Problems	I have discipline problems before age 10. <i>Saya mempunyai masalah disiplin sebelum umur 10.</i>
Lack Goals	I do not plan much for my future. <i>Saya tidak banyak merancang masa depan.</i>
Impulsivity	I act without thinking of the result.

	<i>Saya bertindak tanpa memikirkan kesan tindakan</i>
Irresponsibility	I am irresponsible. <i>Saya tidak bertanggungjawab.</i>
Failure to Accept Responsibility	I failed to accept responsibility. <i>Saya gagal menerima tanggungjawab.</i>
Unstable Interpersonal Relationships	I do not have stable relationship with others. <i>Saya tidak mempunyai hubungan yang stabil dengan orang lain.</i>
Serious Criminal Behaviour	I have serious criminal behaviour. <i>Saya mempunyai kelakuan jenayah yang serius.</i>
Serious Violation of Conditional Release	I have broken the condition set by juvenile court. <i>Saya melanggar syarat-syarat yang ditetapkan oleh mahkamah juvenil.</i>
Criminal Versatility	I have involved in different types of criminal behaviours <i>Saya terlibat dalam pelbagai jenis kelakuan jenayah.</i>  Score of 0 = 3 or fewer types of criminal acts Score of 1 = 4 to 5 different criminal acts Score of 2 = at least 6 different types of criminal acts <i>Markah 0 = 3 atau kurang jenis perbuatan jenayah</i>  <i>Markah 1 = 4-5 jenis berlainan perbuatan jenayah</i>  <i>Markah 2 = Sekurang-kurangnya 6 jenis berlainan perbuatan jenayah</i>

## Appendix V

## Strata

Stratum	1	2	3	4	5
Age	13	14	15	16	17 and 18
Sex	12 Males 12 Females	12 Males 12 Females	12 Males 12 Females	12 Males 12 Females	12 Males 12 Females
Racial Groups	8 Chinese 8 Malays 8 Indians	8 Chinese 8 Malays 8 Indians	8 Chinese 8 Malays 8 Indians	8 Chinese 8 Malays 8 Indians	8 Chinese 8 Malays 8 Indians
Religious Groups	Not being controlled				
Total	24	24	24	24	24

Appendix W  
Application Letters