THE INFLUENCE OF RELIGIOSITY ON HIGH RISK BEHAVIOUR AMONG TRAINEES OF NATIONAL SERVICE TRAINING CENTER (PLKN) IN PASIR MAS, KELANTAN AND BESUT, TERENGGANU

By:

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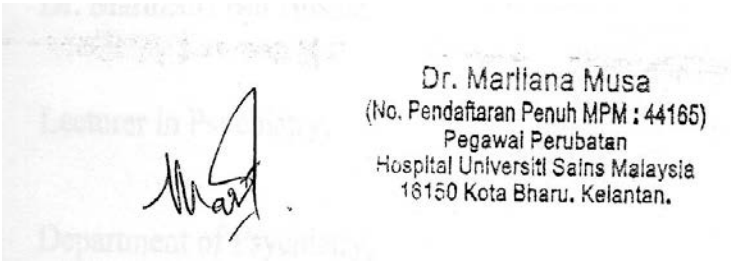
DECLARATION

I hereby declare that the work in this dissertation is on my own effort except quotations and summaries which I have already acknowledged.



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CERTIFICATION

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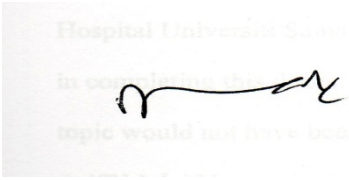

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LIST OF ABBREVIATIONS

AADK	Agensi AntiDadah Kebangsaan
aOR	Adjusted Odds Ratio
CI	Confidence Interval
FELDA	Federal Land Development Authority
HIV	Human Immunodeficiency Virus
HRPZ II	Hospital Raja Perempuan Zainab II
HUSM	Hospital Universiti Sains Malaysia
MLR	Multiple Linear Regression
MRPI	Muslim Religiosity-Personality Inventory
PLKN	Pusat Latihan Khidmat Negara / National Service Training Center
SD	Standard Deviation
SLR	Simple Linear Regression
SPSS	Statistical Package for Social Sciences
USM	Universiti Sains Malaysia
WHO	World Health Organization
YRBS	Youth Risk Behavior Surveillance

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ABSTRAK

Latar Belakang: Alam remaja merupakan tempoh waktu yang sukar dan mencabar untuk anak-anak dan ibu bapa dari segi biologi, emosi, pemikiran dan psikologi. Kematangan usia dan perilaku berisiko tinggi menjadi tajuk yang diminati oleh para pengkaji kerana ia berpotensi memberi kesan yang negatif kepada masyarakat. Keagamaan merupakan satu faktor perlindung yang mengurangkan remaja dari terlibat dengan perilaku berisiko tinggi. Banyak kajian yang menyokong remaja yang lebih beragama dapat melambatkan masa untuk mereka terlibat dengan aktiviti yang berisiko.

Objektif: Kajian ini bertujuan untuk melihat peratus bilangan (*prevalence*) remaja yang terlibat dengan perilaku yang berisiko tinggi dan tahap personaliti keagamaan di kalangan pelatih Pusat Latihan Khidmat Negara (PLKN) di Pasir Mas, Kelantan dan Besut, Terengganu. Dalam masa yang sama, kajian ini bertujuan untuk mengkaji perkaitan antara perilaku yang berisiko tinggi dengan personaliti keagamaan.

Metodologi: Kajian keratan rentas mengikut persampelan mudah ini dijalankan dari bulan Oktober 2014 sehingga bulan Februari 2015 melibatkan 347 pelatih. Soalan kaji selidik mengenai latar belakang, sejarah perilaku yang berisiko tinggi dan borang Skala Personaliti Muslim (Maruzairi H. et al 2015, unpublished) dari *Muslim Religious-Personality Iventory* (MRPI)yang telah divalidasi diberikan. Data di analisa menggunakan SPSS siri 22 dan hubungkait antara perilaku berisiko tinggi dengan latar belakang pelatih dan personaliti keagamaan ditentukan oleh regresi logistik, perbezaan purata (*independent t test*) dan regresi linear pelbagai (MLR).

Keputusan: Bilangan pelatih lelaki ialah 64.8% dan perempuan ialah 35.2%. Kebanyakannya tinggal bersama ibu bapa dan jumlah pendapatan keluarga kurang dari RM1000. Peratus bilangan pelatih PLKN yang terlibat dengan perilaku berisiko tinggi seperti merokok adalah 43.8%, penggunaan alkohol 7.5% dan penggunaan dadah 8.4%. Peratus pelatih yang pernah melihat bahan media lucah, melancap dan melakukan hubungan seksual adalah 54.8%, 49.0% dan 15.0% masing-masing. Analisis regresi logistik menunjukkan faktor pelatih yang dijaga oleh selain dari ibu bapa mereka berkaitan dengan masalah penggunaan alkohol, penggunaan dadah dan melakukan hubungan seksual. Manakala faktor jantina berkaitan dengan masalah melihat bahan media lucah.24.2% pelatih mempunyai personaliti keagamaan yang baik, 62.0% adalah sederhana dan 13.8% mempunyai personaliti keagamaan yang rendah. Bagi MLR, pelatih yang mempunyai pengalaman terlibat dengan perilaku melihat bahan lucah (p=0.033) dan melakukan hubungan seks sebelum berkahwin (p=0.001) mempunyai hubungkait yang signifikan dengan tahap keagamaan.

Kesimpulan:Keagamaan adalah faktor perlindung kepada perilaku berisiko tinggi terutamanya aktiviti seksual. Kajian ini menunjukkan remaja yang terlibat dengan aktiviti melihat bahan lucah dan hubungan seksual sebelum berkahwin mempunyai personaliti keagamaan yang rendah berbanding dengan remaja yang tidak terlibat dengan aktiviti tersebut. Tidak dinafikan bahawa alam remaja adalah satu tempoh masa yang sangat mencabar, namun faktor keagamaan perlu ditekankan secara berterusan beserta dengan pengawasan ibu bapa, nilai moral yang baik dan pengetahuan mengenai perilaku berisiko tinggi.

Kata kunci: Remaja, personalitikeagamaan, perilakuberisikotinggi

ABSTRACT

Background: The adolescent period is considered to be difficult and challenging for both children and their parents' particularly in biological, emotional, cognitive and psychological aspects. Many researchers interested in the topic of adolescent with high risk behavior due to its potential negative consequences in adult life and religiosity appeared to be one of the protective factors. Adolescents who were more religiouswere found to be protected from involved with high risk behavior based on many previous studies.

Objectives: This study wasaimed to determine the prevalence of high risk behavior and the level of religious personality among trainees of national service training center (PLKN) in Pasir Mas, Kelantan and Besut, Terengganu as well as to determine the association between high risk behavior and level of religiosity.

Methodology: A cross sectional study, using a convenience sampling method conducted from October 2014 to February 2015 involving 347 trainees.A self-rated questionnaire regarding personal information, high risk behavior and sexual behavior was distributed together with Muslim Pesonality Scale (Maruzairi H. et al 2015, unpublished), a validated Malay version Religious Personality Scale of Muslim Religious-Personality Inventory (MRPI). Data analysis was done using Statistical Package for the Social Sciences (SPSS) version 22 by usinglogistic regression, an independent *t* test and multiple linear regression (MLR) to see the association between high risk behavior, socio-demographic and level of religiosity.

Results: Among the study population, 64.8% were male and 35.2% were female. The majority of them staying with their parents and had income less than RM1000. The prevalence of high risk behavior was 43.8% for smoking, alcohol use was 7.5% and illicit drug use was 8.4%. Prevalence of pornography, masturbation and sexual intercourse experienced were 54.8%, 49.0% and 15.0% respectively. Logistic regression analyses showed that factor of the trainees being taken care by other than their parents were associated with alcohol use, illicit drug use and had sexual intercourse experience premaritally. Gender factor was associated with pornography viewing behavior. 24.2% of the trainees had high religious personality, 62.0% had moderate and 13.8% had low religious personality. In MLR, trainees who had a pornography experience (p=0.033) and sexual intercourse experience (p=0.001) were significantly associated with the lower level of religiosity.

Conclusion: Religiosity is known to be a protective factor towards high risk behavior especially sexual related behavior. This study support that adolescent involve with pornography viewing and premarital sexual intercourse had lower level of religiosity compared to adolescent without pornography viewing and premarital sexual intercourse. However, since the challenges during an adolescent developmental period is high, religiosity should be strengthened continually with other factors such as parental guide, moral value and knowledge of high risk behaviors.

Keywords: adolescent, religious personality, high risk behavior

CHAPTER ONE

INTRODUCTION

According to World Health Organization (WHO) (Bahagian Pembangunan Kesihatan Keluarga 2001), adolescence is a young people in between ages10 to 19 years. Adolescents'period is a period of rapid physical and psychological development also including time where sociocultural and cognitive changes occurred. Adolescents need to use their efforts to confront and overcome challenges to establish their own identity and autonomy (Ralph J. Diclemente et al, 1996). This period is considered to be difficult and challenging for both children and their parents.

High risk behaviors define as people who involve with a lifestyle activity that place a person at the increased risk to a bad consequent (Segen's Medical Dictionary, 2011). High risk behaviors often establish during adolescent and are occurring at progressively younger ages. Most of the previous journal defined high risk behavior as tobacco use, alcohol and illicit drug use,premarital sexual activities such as pornography, masturbation and sexual intercourse,unhealthy dietary behaviors and inadequate physical activity or any behaviors that may result in negative consequences (Brenda L.Welburn, 2003).

An adolescent with high risk behavior is increasing over the decades and being the interest topic to the researchers, health practitioners and policy maker to do a study on it. They are interested because adolescent with high risk behaviors will be at the potentialto develop negative consequences in their adult life, for example, failure to achieve their full

potential as a student, children, parents,workers and as well as the individuals. Furthermore, these behaviors may lead totruancy, physical fight, destructive behavior, unplanned pregnancy,sexual transmitted disease, including HIV infection and may significantly lead to mortality and morbidity in later life.

In Malaysia, previously the main cause of HIV infections through injecting drug users. However, the trend was changing now. A higher rate of HIV transmission through sexual transmission where in 2013 it contributed up to 74% versus injecting drug use was 22%. Transmission through heterosexual intercourse had increased from 45% of cases in 2012 to 51% of cases in 2013. 31% of newly reported cases are in their twenties and number of HIV positive women has been increasing. In 2001, ration of men with HIV to women with HIV was 10:1, however, in 2013 the ration changed to 4:1 (Malaysian AIDS Council, MAC, 2014).

According to the study of Ghandari and Tajalli, 2006,prevalence rate of high risk behaviors among university students was as follows: 22% involved with alcohol use, 16% smoke cigarette, 1% use drugs and 18% have sex. The prevalence of alcohol use was 7% from a survey done to Malaysians adolescents aged 13-18 years,according to Institute for Public Health, Health and Morbidity Survey, 2006. Theprevalence of illicit drug use among adolescent and young adult at Malaysia age from 13 to 25 was 16.3% (inhalants), 16% (marijuana), 15.2% (stimulants), 15.2% (heroin) and 15.5% (morphine) according to study done by Razali and Kliewer, 2015. The prevalence of other high risk behavior among Malaysian adolescent were smoker whom are younger than 18 years old was 23.5% (Lim

KHet al., 2014) and nine percent or 105 of the total of 1181 single participantsaged 15 to 21 years old admitted had experienced sexual intercourse (Siti Nor et al., 2010).

The religious or spiritual belief or the cultural religious context within which they are raised may impact their attitudes or beliefs about doing risky behavior. In fact, most of the religions considered high risk behavior as a sin. Many previous studies reported that youth who were more religious had a potency toprevent them from involve with high risk behavior. A study done by J. W. Sinha et al., 2007, they measured religiosity by assessing the participants' perception on the importance of religion in their life, looking at their attendance to a worship service, and their participation in a religious youth group. The study showed increased religiosity significantly decreased adolescents high risk behaviors such as tobacco, alcohol and marijuana use, sexual activity, truancy and depression. Increased religious behaviors are a good predictor of to prevent adolescent risk behaviors. In Malaysian study done by Naing NN, Ahmad Z et al., 2004 found religion reason was the strongest factorfor non-smokers not smoking. Adolescents who had less religious attitudes also more likely to ever have had sex pre-maritally compared to those who held religious attitudes on sexuality (Hanglund and Fehring, 2010).

Based on these points, this study thus aims to determine the prevalence of high risk behavior, level of religiosity among trainees of the National Service Training Center in Kelantan and Terengganu and association between high risk behavior and level of religiosity.

CHAPTER TWO

LITERATURE REVIEW

2.1 High risk behavior in adolescent

High risk behavior means a behavior or natural processes that contribute to social problems,mortality and morbidity among adolescents.Adolescents arenaive and inexperienced; get themselves into actions that may give a negative impact on them without thinking of the future effects (M. A. Rahmah, B. Shahraniza, 2008).The health-related behaviors that being chosen is critically associated with the health of young adults and adults. A numbers of actionscontributing to today's major killers to our populations. The actionsthat often establish during adolescents were tobacco, alcohol and illicit drug use, unhealthy dietary actions, inadequate physical activity, premarital sexual activities that may at risk forHIV infection and other behaviors that may cause harm to adolescents such as involve with motor vehicle accidents (Brenda L. Welburn 2003).

The most recent survey in Malaysia by Azmawati MN et al., 2015 found that the most prevalent type of risk taking behavior in both rural and urban areas where bullying or teasing, physical aggression, absenteeism, vandalism, going out late, hanging around, stealing, clubbing, tobacco, alcohol and drug use, pornographic viewing, sexual intercourse, pre-sexual activity, gangsterism, illegal racing and gaming.

Nowadays, social problems among adolescents are escalating year by year and most probably due to the process of modernization and world without boundaries (Azmawati MN et al., 2015; M. A. Rahmah, B. Shahraniza, 2008). Thither are many short term and long term negative effects linked to high risk behaviors (J.E Yonker et al., 2012) and it continually gives the trouble the families, societies and cause marked challenges to social services (J. W. Sinha et al., 2007). Adolescent with high risk behaviors cause a grievous menace to health during adolescence, in early adulthood and in later life.The behaviors strongly related to significant quality of social and psychological welfare, including income and job performance, family quality, good social relationships and economic stability (Ralph J. Diclemente et al., 1996). Malaysia is concerned with the social and economic impact of high risk behavior, according to theMinistry of Women, Family and Community Development & UNICEF Malaysia, 2013.

There are many contributing risk factors had been identified within the adolescents themselves and from the social factors and surrounding that contribute to high risk behaviors. The factors are physiologically such as biochemical and genetic factors, family factors such as family conflict, low family bonding and relationships, family members with drug use and family management practices, personality factors such as early and persistent problem behaviors,alienation and rebelliousness, attitudes favorable to use drug and early onset of drug use (conduct behaviors), social factors such as poor academic performance, low commitment to school, peer rejection in early grades and peer influences (Hawkins, Cummins and Marlatt, 2004).

According to a study by J.A Fulkerson et al., 2006, a myriad of ingredients, including the societal context of family, peers and schools, as well as personal attributes is significant in shaping healthy adolescent development. Over several tens, the importance of family factors in adolescent health has been established.One of the protective factors for teenagers is developmental assets and it can be divided into internal assets and external assets.Example of internal assets are committed to learning, religiosity (positive values), social commitment and positive identity and example of external assets are a positive support,appropriate boundaries and expectations from parents, family, peers and society.

2.2 Religiosity and high risk behavior

Religiosity is the quality of being religious and affected or excessive devotion to religion based on the American Heritage Dictionary of the English Language, Fifth Edition 2011. According to Amey at al 1996, both religious behaviors and religious attitudes mean religiosity. Religiosity includes the numerous facets of spiritual activity, dedication, and belief or in other way, religiosity may be referred to as the land of one's belief in God, characterized by his piety and spiritual zeal.The higher his piety and religious zeal are, thus the stronger his belief in God, the higher his religiosity is.Different authors came out with different numbers of religious elements, all the same, however, the core dimensions and elements of the religiosity could be categorized into four primary things; belief, knowledge, practice and experience (Salleh, 2012).Religiosity being the domain of interest for a psychologist and sociologist to understand the impact of it's to human institutions.

Religiosity have been considered to sustain a positive effect on health whereby its prescriptions and restrictions help in shaping health perceptions and attitudes, as well as affecting one's psychological and personality features.A meta-analytic review regarding the relationship between spirituality and religiosity on deviant behaviors by J.E Yonker et al., 2012, there were ten studies examined deviant behaviors (vandalism, stealing, assault, smoking, drinking and drug use) and they found out greater spirituality and religiosity were related to decreased deviant behavior. The outcome of a study on religiosity and health status in Muslims suggested that spiritual activity was positively related to general health perception and spiritual wellness, while spiritual health (a factor of health status) was found positively related toa religious attitude (Rahmah, Hatthakit et al., 2008).

In Malaysia, there are few studies done to assess religiosity and the impact to the population. However, different author uses different method of assessment. Shamsuddin, 1992suggested a theoretical account of Islamic religiosity represented by the concept of Taqwa (God-consciousness) — a multidimensional variable of religiosity that includes knowledge (‘ilm/ma'rifah), belief (Iman), practice (‘Amal), consequences (Natajah) and realization of excellence (Ihsan).

Krauss et al., 2006 created the Muslim Religiosity Personality Inventory (MRPI), a self-rated five point Likert scale, consists of Islamic Worldview scale and Religious Personality scale,. The instrument was tested to 1692 youth in four states in Malaysia,Wilayah Perseketuan, Johor Bahru, Kelantan and Perlis, which were randomly selected and mix of rural and urban area with three age groups,early youth (16-20), middle youth (21-24), and older youth (25-35). The youth from six different social backgrounds:

IPTA youth (public university students); youth organization members; Serenti (drug rehabilitation center) members; political party members; youth at-large (non-affiliated youth); and young factory workers.

Another scale used to assess religiosity is The Hatta Islamic Religiosity Scale 1996 (HIRS96). This scale was devised by Mohamed Hatta Shaharom to measure Islamic knowledge and practice among Muslim adults and adolescents in the state of Selangor, Malaysia. It consists of four parts with twenty-seven questions on Islamic Knowledge, Islamic Practice, Completion of Quran Reading and Enjoining Good and Forbidding Wrong. It validation study was conducted on two groups of youth; tahfiz students and delinquent youth; ages between 20 and 24 years old. This scale had good inter-rater reliability (0.87 to 0.96) and was able to discriminate between the two groups.

2.2.a Religiosity and tobacco use

Tobacco use among adolescents and adult population is increasing in trend. Smoking is a major preventable cause of early aged death and chronic diseases. In 2011, 23.1% or 4.75 million Malaysian adults aged 15 years and older were current smokers of tobacco: 43.9% of men and 1.0% of women based on Global Adult Tobacco Survey Malaysia, 2011. A majority of smoker start smoking in adolescents and the age become younger and younger. In Kelantan, the prevalence of smoking among adolescent male age 16 and 17 years was 35.9% (Naing NN, Ahmad Z. et al., 2004). The advantage of this study was it used a specific definition for smoking habit and students were asked to indicate their reasons for smoking or non-smoking based on the factors such as religion, parental control,

parental smoking status, peer influence, feeling of maturity, enjoyment, monetary and other factors. A 3 year longitudinal study, which was conducted from March 2007 to May 2009 among 2700 lower secondary school male students in Kota Tinggi found the prevalence was 35.5%. The results showed schools located in the Federal Land Development Authority (FELDA) settlement areas were twofold higher than in the rural and town schools (Lim KH et al., 2010). Beside assessing the current smoking habit, they also found that the prevalence of adolescents susceptible to smoking was 16.3% in 1736 non-smoking respondents.

Factors influencing smoking among adolescents were male, being at second school level, having other family members who smoked, influenced by peers and had a self-desire to smoke (TH Norbanee et al., 2006). Other relevant factors influencing smoking were social influence, poor knowledge about the ill effects on health due to smoking (Lim KH. et al., 2014), low household income and parents' education (J. W. Sinha et al., 2007).

Tobacco use affects the health status and diseases linked to tobacco use remained the popular causes of death. Common diseases due to smoking were heart disease, pulmonary disease and cancer (WHO 2015). The WHO aimed wasto protect both present and future generations from the devastating health, societal, environmental and economic effects of tobacco use and exposure to tobacco smoke.With this it can reduce the global burden of disease and death induced by tobacco (Global Adult Tobacco Survey Malaysia 2011).

The protective effect of religiosity has been demonstrated in various US-established studies. When religiosity was high, cigarette use among adolescent (Amey et al., 1996) was low. Perception that religion was important in one's life and attendance at worship services

was negatively linked with tobacco usage.In other words the more religious the teenagers, the less the likelihood they involved with tobacco usage (J. W. Sinha et al 2007).

2.2.b Religiosity and alcohol use

The prevalence of alcohol consumptionfor both male and female adolescents in Netherland increased between year 1993 and 2005-2008, from 59.5 to 72.4% (Lot M. Geels et al., 2011). About half of the boys and girls by age of 15 years of age had consumed alcohol and one-fifth among them had engaged in binge drinking, similar for both genders. At the age of 15-16 years the prevalence of hazardous drinking was 34% (G. J. MacArthur et al., 2012).

A survey doneby Institute of Public Health on alcohol consumption among Malaysians adolescents aged 13-18 years found out that 7% of participants had a history of alcohol use. Out of it, 2% had consumed alcohol in the past month.The highestprevalence was found among those who stays in urban (3%), males (3.3%), Christian (10.8%) and Chinese (8.6%). Among those who consumed alcohol in the past month, 25% of participant admitted to binge drinking. The survey was published inNational Health and Morbidity Survey 2006.

Various established studies had shown that religiosity had the protective effect towards alcohol use.Alcohol consumption was found low whenever religiosity level is high (Amey et al 1996; Miller et al., 2000).The most frequently examined high risk behavior was

underage alcohol use (k=16). The effect size was -0.17 indicated that increased spirituality and religiosity related to less underage alcohol use (J. E. Yonker et al., 2012).

Another study in Mexico also suggested that the protective effect of religion (internal religiosity) towards alcohol use is significant (F.F. Marsiglia et al., 2012). In many societies, religion plays a key role in giving a strong structure to community life and presents an additional partnership opportunity for public health actions in the control of alcohol drinking habits. For example, in Islam taking alcohol is prohibited among the Muslims. This does explain why the percentage of alcohol consumption among Muslim adolescents is low compared to other races (Wan Rozita WM et al., 2005).

2.2.c Religiosity and illicit drug use

One in 6 adolescents and 1 in 3 young adults reported lifetime recreational and hard drug use with greater use reported by males across all drug categories. Peer reinforcement for engaging in anti-social behavior, peer anti-social behaviorand early initiation of anti-social behaviors are the significant risk factors for substance use (Muzafar and Wendy, 2015).

Among the observed adverse effects of short term heavy users of Marijuana were short term memory loss, impairment in motor coordination, impairment in judgments as well as increase the risk of sexual behaviors that facilitate the transmission of sexually transmitted diseases. If it's taken inhigh doses it may cause paranoia and psychosis. For long term useof Marijuana, possible adverse effectwould be addictive (about 17% of those who

began in adolescence), cognitive impairment, poor educational outcome, altered brain development, symptoms of chronic bronchitis, negativeinfluencetowards lifeachievement and satisfaction and increased risk of psychotic disorders (Nora D. Volkow et al., 2014).

Study by FF Marsiglia et al., in 2012 found that a combination of internal and external religiosity may be a protective factoragainst substance use. In this study, internal religiosity is defined as self-personal behaviors while external religiosity is involvement and participation in religious activities. It was consistent with her previous study where she concludes religion was protective against substance useamong Hispanic youth living in the US (Marsiglia et al., 2005).

AmongAfrican American adolescent, negative health behaviorsincluding substance use was relatively higher when religiosity level is low (Wills et al., 2003;Steinman and Zimmerman, 2004). Meta-analysis of nine studies investigated relationships between spirituality and religiosity with self-reported use of marijuana in the past 30 days. In that meta-analysis, they concluded that decreased marijuana use was related to increased levels of spirituality and religiosity (-0.12) (J. E. Yonker et al., 2012).

A study to investigate risk and protective factors for recreational and hard drug use in Malaysian adolescents and young adults was done in 859 participants from secondary schools, technical colleges, a juvenile detention center and a national training center in Malaysia. It used the Malaysian version of the Communities That Care (CTC) survey to assess the risk and protective factors and lifetime use of all substances was assessed on a 5-point scale where 0 = never used; 1 = used 1–2 times; 2 = used sometimes but not regularly; 3 = regular user previously but not currently; and 4 = current regular user.This study found

that the protective factors for recreational and hard drug use included religious practice and opportunities for prosocial school involvement (Muzafar and Wendy, 2015).

2.2.d Religiosity and premarital sexual behavior

Sexual risk behavior among youth is defined as having premature sexual activity, sex with multiple partners orunprotected intercourse (Center for Disease Control and Prevention 2007). Early sexual initiation,particularly among young women and teenage girls has several negative impacts which can influence emotional, social, physical and economic. Sexually transmitted infection (STI) is common in this group of youth and itis estimated that one in four teenage girls with premature sexual history will sufferit at least once (Centers for Disease Control and Prevention 2007). Apart infected with an STI, they also at higher risk of catching into unplanned pregnancy and be a single mother. Teenage pregnancy is considered as high risk and associated with a few adverse antenatal and perinatal sequences such as preterm delivery, stillbirth, small for gestational age baby and emergency caesarean section(Gordon and Jill, 2001; Omar, Hasim et al., 2010).

There are many other negative consequences of early sexual activity such as experience relationship violence, suicidal ideation,depression and later, it will lead to more risky sexual behavior. Other studies related teenage sexual initiation with lowered self-esteem, decreased school performance and at higher risk to involve in substance abuse.

Among Asian country, studies on sexual activity in adolescent are not many. One study among unmarried person aged 15 to 24 years old in India estimates,pre-marital sexual

activityto happen in adolescence was1 in 10 young men and 1 in 20 young women. (Santhya, Acharya et al., 2011) Another study made in Thailand among adolescent estimates about 11%of participants (7.6% among females and 14.6% among males) had involved in sexual activity in the past 1 year (Peltzer and Pengpid, 2011).

In our country, the topic of sexuality, especially among youngster is asensitive subject and some people considered as inappropriate to be discussed in public. It is a neglected issue, despite increasing numbers of high risk behaviorsamong our youth. From earlier studies, it is estimated that premarital sexual activity among our adolescent was ranged from 5.4% to 13%. (Zulkifli and Low, 2000; Lee, Chen et al., 2006; Mudassir, Syed et al., 2010) The age of initiation of sexual activity was as early as 15 years old (Lee, Chen et al. 2006). However, the previous studies focused mainly on the prevalence of premarital sexual behavior.

In Malaysia several studies were conducted to investigate relation to sexual activity among adolescent. One of the earlier studies on sexual behavior among Malaysian adolescent didin 1995. Out of 4500 respondents who involved in the study, 5.4% of them reported to have ever had sexual intercourse. As expected, the proportion was found higher among male students compared with their counterparts (Zukifli, Low et al., 1995). Data from Second National Health and Morbidity Survey of 1996 showed that 1.8% of the secondary school respondents admitted to having had sex (Ministry of Health Malaysia 1997). While in latest studyperformed in 2010, it was reported 9%of respondents out of the total of 1181 admitted of having similar event. The respondents are unmarried with an age of 15 to 21 years old (Siti Nor et al., 2010). From these studies, we can see the trend of

premarital sexual initiationamong Malaysian looks have increased over the years. Rapid modernization and social changes in the country is the possible culprit.

Various factors may influence adolescent's sexual knowledge during the developmental period, such as gender, race,age,personal belief,religiosity and attitude towards sex related sources (Siti Nor et al.,. 2010).This study was conducted in three universities situated in Klang, Selangor, involving 1850 students age 18 to 24 years old and using a self-completion questionnaire with 230 items assessing demographic and educational background information; sources of information and knowledge; reproductive health education; and sexual behavior.

A more recent study among adolescents was conducted by Azriani et al., in 2012. The survey is performedamong 1032 secondary school students in Kelantan. The objective of the study was to investigate attitudes toward premarital sexual activities and its associated factors. The results of this study show that the permissive attitudes toward premarital sexual activities was significantly higher among male students. Contrary,protective factors against permissive sexual attitude was having a good knowledge in sexual and reproductive health (OR = 0.27; 95% CI = 0.20-0.36). However, this study took only the frequency of daily prayers as an indicator of religiosity. A similar method was used in the study by Awaluddin et al., 2015 regarding the prevalence of sexual activity in older Malaysian adolescents who participate in youth program from May to December 2010. In this study, the authors assessed the level of religiosity just by answering "yes" to the question "religion is important or very important in life". In this study, it was found out that sexual activity was

positively associated with low religiosity(aOR: 1.71; 95%CI: 1.30-2.26). No specific scale being used to assess religiosity.

Most researchers supported those adolescents who weretended to delay sexual activities were who are more religious (Kirby, 2002; Rostosky, Wilcox et al., 2004). In a survey among 1695 adolescents and young adult, it was found that survival rates as virgins at the age of 21 among adolescents who did not view religion as important was15% compared to rate among the adolescents who felt that religion was very important was 20%.Adolescents who had less religious attitudes on human sexuality were 46% more likely to ever have had sex compared to adolescents who held religious attitudes towards sexuality (Haglund and Fehring, 2010). In a study comparing several religions with premarital sex, they found that ever married Christians and Jews are more open while reporting practice of premarital sex compare to ever marry Muslims and Hindus who have more conservative thought about sexand were less likely to reveal it(Adamczyk and Hayes, 2012). However, since the exposure to Western values has increased, attitudes towards sexual behavior have changed and become more liberal. It was evidenced by a study comparing Christian and Muslim adolescents in Nigeria, where they found that an increase in premarital sexual behavior among Christians and an earlier age of initiating sexual activity in Muslims (Agha, 2008). A study in Muslim-dominant societies of Malaysia and Indonesia found that rate ofsexual activity before marriage has increased. (Jaafar, Wibowo et al., 2006).

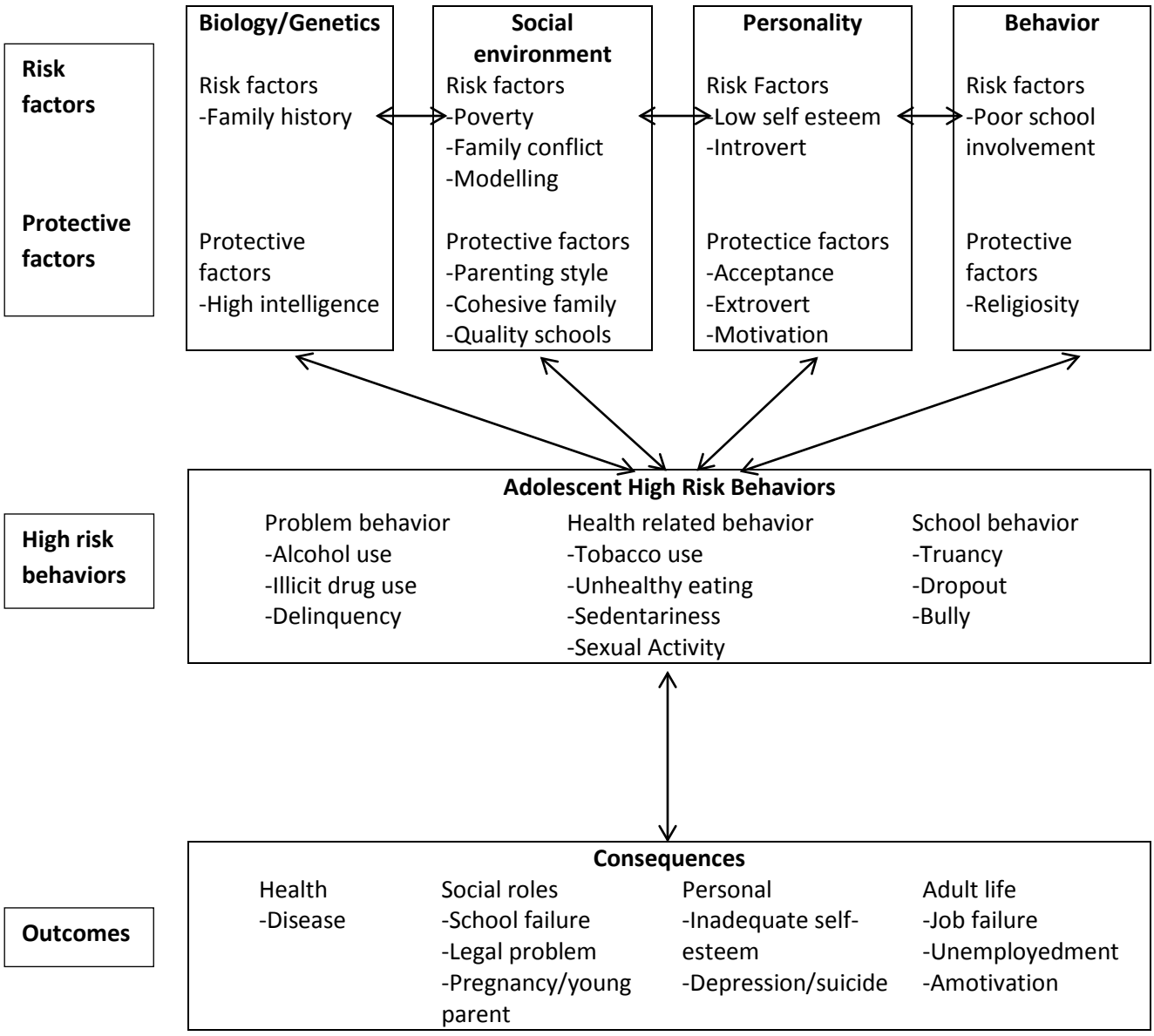

Figure 2.1: Conceptual framework

CHAPTER THREE

OBJECTIVES AND RESEARCH HYPOTHESIS

3.1 General Objective

This study aims to determine the prevalence of high risk behavior, the level of religiosityas well as the association between high risk behavior and level of religiosity among trainees of national training center (PLKN) in Pasir Mas, Kelantan and Besut, Terengganu.

3.2 Specific Objectives

1. To determine the prevalence of smoking, alcohol, drug useand premarital sexual behavioramong trainees of national service training center (PLKN)in Pasir Mas, Kelantan and Besut, Terengganu.
2. To determine the level of religiosityamong trainees of national service training center (PLKN)in Pasir Mas, Kelantan and Besut, Terengganu.
3. To determine the association between level of religiosity and high risk behavior among traineesof national service training center (PLKN) in Pasir Mas, Kelantan and Besut, Terengganu.

3.3 Research Questions

1. What is the prevalence of high risk behavior among the traineesof national servicetraining center (PLKN) in Pasir Mas, Kelantan and Besut, Terengganu?
2. What are the levels of religiosity among the trainees of national service training center (PLKN) in Pasir Mas, Kelantan and Besut, Terengganu?
3. What is the association betweenlevel of religiosity and high risk behavioramong the trainees of national service training center (PLKN) in Pasir Mas, Kelantan and Besut, Terengganu?

3.4 Research Hypothesis

1. Prevalence of high risk behavior among trainees is high.
2. Level of religiosity among the trainees majority is on the moderate level.
3. Religiosity would have negative correlation with high risk behavior.

CHAPTER FOUR

METHODOLOGY

4.1 Study Setting

This study was carried out at two different nationalservice training centers. These centers were:

1. National Service Training Center at Pasir Mas, Kelantan
2. National Service Training Center at Besut, Terengganu

National Service Training Program (PLKN) conscripts of 18-year-old youths that are drafted for three-month program. According to the National Service Training Act 2003, the program was made as compulsoryto persons or any category of persons who have been randomly selected to join it. There are criteria for postponement and exemption for the selected trainees. The program was started in December 2003 and fully operational since 2004. The objectives of this program basically to build and strengthen the patrioticspirit amongst youths, to strengthen core moral values,to impart volunteerism,to enhanceracial unity and national integration and to build a resilient, healthy and confident young generation.

4.2 Study Design and Study Period

This study was a cross-sectional study conducted for five months from October 2014 until February 2015.

4.3 Study Population and Study Sample

4.3.1 Reference population

All trainees at national service training center (PLKN) in Malaysia.

4.3.2 Source population

All trainees attended national service training center at Pasir Mas, Kelantanand Besut, Terengganu from October 2014 until February 2015.

4.3.3 Sampling frame

All trainees attended national service training center at Pasir Mas, Kelantan and Besut, Terengganu who fulfilled the inclusion and exclusion criteria were taken for the study.

4.3.4 Study sample

All trainees attended national service training center at Pasir Mas, Kelantan and Besut, Terengganu who fulfilled inclusion and exclusion criteria and willing to take part in the survey.

4.3.4.1 Inclusion criteria

1. All trainees aged 18 to 20 years old.
2. Single participants.
3. Muslims trainees.
4. Able to read and write in Bahasa Malaysia.
5. Trainees who consented to the study.

4.3.4.2 Exclusion criteria

1. Married trainees.
2. Non-Muslim trainees.
3. Cannot read and write in Bahasa Malaysia.
4. Trainees disagree to participate.

4.3.5 Sampling Method

This study, conducted in national service training center in Pasir Mas, Kelantan and Besut, Terengganu which employed convenience sampling method due to limited resources and time. Consented participants who joined the national service training center,respectively at Pasir Mas and Besut during the study duration were included in the study.

4.3.6 Sample size calculation

Sample size calculations in this studywere done for the different objectives that being mentioned. The calculation was using previously available and significant results from other studies. The final number of participants that need to be recruited in the survey depended on the largest calculated sample size. The estimation was done using STATA statistic software.

Sample size calculation for objective one: prevalence of high risk behavior among adolescent, single proportion was used

$n = (Z/\Delta)^2 P(1-P)$

P = Prevalence of smoking among adolescent = 0.23 (Lim KH et al., 2014).

$\Delta = 0.05$

$n = (1.96/0.05)^2 0.23(1-0.23)$

= (1563.64)(0.17)

= 276

If consider 80% response,

N = 276/0.8

= **345 samples**

P = Prevalence of illicit drug use among adolescent = 0.15 (Razali and Kliewer, 2015)

$\Delta = 0.05$

$n = (1.96/0.05)^2 0.15(1-0.15)$

= (1563.64)(0.13)

= 203

If consider 80% response,

N = 203/0.8

= **254 samples**

P = Prevalence of alcohol use among adolescent = 0.07 (Institute for Public Health, Health and Morbidity Survey, 2006)