



**UNIVERSITI PUTRA MALAYSIA**

***RELIGIOSITY, SELF-CONTROL, AND EXTERNALIZING PROBLEMS  
AMONG JUVENILE OFFENDERS IN MALAYSIA***

**NURSYUHAIDAH BT MOHD KADRI**

**FEM 2020 20**



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By

**NURSYUHAIDAH BT MOHD KADRI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

**August 2018**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment  
of the requirement for the degree of Doctor of Philosophy

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**Chairman : Professor Rozumah Baharudin, PhD**  
**Faculty : Human Ecology**

Adolescent externalizing problems may increase the likelihood of an unsuccessful transition to adulthood. Recent growths in adolescent misconduct have heightened the need to investigate the factors that may contribute to adolescent externalizing behaviour problem. A growing body of evidence has indicated religiosity to be important buffer for adolescent misbehaviour (Chamratrithong et al., 2013; Desmond, Ulmer, & Bader, 2013; Pirutinsky, 2014). However, few studies have examined the mechanism whereby religiosity exerts this effect (Johnson, Jang, Larson, & De Li, 2001; Landor, Simons, Simons, Brody, & Gibbons, 2011). This study aims to examine a structural model on the relationship between adolescent religiosity and externalizing behaviour problem, and the mediation role of self-control on this relationship. This study also seeks to examine whether the structural model is moderated by socio-demographic variables (age, gender, and family structure) and parental religious socialization (maternal and paternal). A quantitative and cross-sectional approach was employed in the present study. Data in this study was from a large-scale national research project led by Baharudin, Zulkefly and Zarinah (2015). The sample in this present study comprised of 427 juvenile offenders aged between 13 to 18 years from eight Sekolah Tunas Bakti (STB) across nation which recruited using stratified random sampling technique. Information of adolescent's socio-demographic background, religiosity, self-control, rule-breaking behaviour, aggressive behaviour, maternal and paternal religious socialization were collected using self-report questionnaire. Data were analysed using Statistical Package for Social Science (SPSS) and Analysis of a Moment Structures (AMOS), and resulted in a structural model. The results of the direct effect indicated that adolescent religiosity influence both rule-breaking and aggressive behaviour problems. Whereas, the indirect effect showed that adolescent religiosity was significantly and indirectly linked to both externalizing problems through its impact on self-control. In addition, moderation analysis results indicated that this mediating mechanism showed significant difference across gender, suggesting female

adolescent demonstrated higher buffering effect. However, this study found no significant moderation of adolescent's age, family status, and parental religious socialization on the model. This study concludes that adolescent religiosity and self-control have deterrent effect on adolescent externalizing problems. Nevertheless, the findings presented in the present study represent a further step towards developing preventative intervention programs aims at encouraging adolescent religiosity and self-control to protect adolescents against externalizing behavioural problems.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KEAGAMAAN, KAWALAN KENDIRI, DAN MASALAH TINGKAH LAKU  
DALAM KALANGAN JUVANA DI MALAYSIA**

By

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Masalah tingkah laku remaja meningkatkan keberangskalian untuk gagal dalam peralihan ke zaman dewasa. Peningkatan dalam kes salahlaku remaja pada masa kini telah meningkatkan lagi keperluan untuk mengkaji faktor yang mungkin boleh menyumbang kepada masalah tingkah laku remaja. Pelbagai bukti kajian telah menunjukkan bahawa keagamaan menjadi penghalang yang penting kepada salahlaku remaja (Chamrathirong et al., 2013; Desmond et al., 2013; Pirutinsky, 2014). Walaubagaimanapun, tidak banyak kajian yang menguji mekanisma yang terlibat dalam proses tersebut (Johnson, Jang, Larson, & De Li, 2001; Landor, Simons, Simons, Brody, & Gibbons, 2011). Kajian ini bertujuan untuk mengkaji model struktur yang menghubungkan antara keagamaan remaja dan masalah tingkah laku mereka, serta peranan kawalan sendiri sebagai perantaraan dalam hubungkait ini. Kajian ini juga bertujuan untuk mengkaji sama ada model struktur tersebut melibatkan moderator seperti pemboleh ubah sosio-demografi (umur, gender, dan struktur keluarga) dan sosialisasi keagamaan ibubapa (ibu dan bapa). Kajian ini menggunakan kaedah kuantitatif dan pendekatan kajian rentas. Manakala data bagi kajian ini diperolehi daripada projek kajian nasional yang berskala besar yang diketuai oleh Baharudin, Zulkefly dan Zarinah (2015). Sampel dalam kajian ini melibatkan 427 pesalah juvana yang berumur antara 13 hingga 18 tahun dari lapan buah Sekolah Tunas Bakti (STB) di seluruh negara, dan dipilih menggunakan teknik persampelan rawak berstrata. Maklumat mengenai latar belakang sosio-demografi remaja, keagamaan, kawalan sendiri, tingkah laku melanggar peraturan, tingkah laku agresif, sosialisasi ibu dan bapa telah dikumpulkan dengan menggunakan soal selidik. Data juga telah dianalisis dengan menggunakan perisian *Statistical Package for Social Science (SPSS)* dan *Analysis of a Moment Structures (AMOS)*, serta telah menghasilkan model struktur. Hasil daripada kesan secara langsung menunjukkan keagamaan mempengaruhi kedua-dua tingkah laku melanggar peraturan dan tingkah laku agresif. Manakala, kesan secara tidak langsung menunjukkan keagamaan remaja mempunyai hubungan yang signifikan dan tidak langsung kepada kedua-dua

masalah tingkah laku melalui kesannya terhadap kawalan sendiri. Tambahan pula, hasil analisis moderasi mendapati mekanisme perantaraan tersebut menunjukkan perbezaan yang signifikan antara gender, remaja perempuan memperlihatkan kesan penghalang yang lebih tinggi. Walaubagaimanapun, kajian ini menunjukkan umur remaja, struktur keluarga dan sosialisasi ibu bapa tiada moderasi yang signifikan dalam model tersebut. Kajian ini membuat kesimpulan bahawa keagamaan dan kawalan sendiri mempunyai kesan penghalang terhadap masalah tingkah laku remaja. Hasil yang dibentangkan dalam kajian ini memperlihatkan satu langkah ke arah membangunkan program intervensi pencegahan yang bertujuan mendorong keagamaan remaja dan kawalan sendiri untuk melindungi remaja daripada terlibat dengan masalah tingkah laku.



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## LIST OF ABBREVIATIONS

CFI	Comparative Fit Index
EDA	Exploratory Data Analysis
RMSEA	Root Mean Square Error of Approximation
SD	Standard Deviation
SEM	Structural Equation Modelling
TBS	Tunas Bakti School
WHO	World Health Organization
YSR	Youth Self Report



# CHAPTER 1

## INTRODUCTION

### 1.1 Background of Research

Malaysia is a unique multi-racial and multi-religious country, with people of many faiths and cultures living in harmony. According to the 2010 census, more than half which is almost 61.3% of the society in Malaysia is Muslim that follows and adheres to the Islamic religiosity, followed by Buddhism (19.8%), Christian (9.2%) and Hinduism (6.3%). The Federal Constitution of Malaysia also declares Islam as the official religion of the country as the majority of the population are Muslim, but other religions can be peacefully practiced.

Upon achieving independence in 1957, Malaysia has undergone rapid strides in the development of economic. Consequently, as with other developing countries, Malaysia is also experiencing tremendous of urbanization, globalization, and modernization process that perceived to be challenges to religion. The rapid urbanization in Malaysia also associated with social changes includes smaller family size, increased females in labour force, and rising divorce rates (Idris, 2017). All of these changes can have impact on the well-being of families, particularly on child development. In the history of development economics based on secular worldview has failed in promoting values such as altruism, moderation, and simplicity, and also cause the breakdown of the family institution in the West (Pramanik, 2002). The obvious outcome is the dramatic increase in crimes in those countries, which also experienced in Malaysia.

The issue of escalating of crime in Malaysia is a social problem commanding national concern (Soh, 2012). Survey conducted by government showed that crime was the second social concern among Malaysians after the economy. Therefore, government has implemented the Reducing Crime NKRA (National Key Results Areas) key performance indicator led by Malaysia Ministry of Home Affairs via the RMP (Royal Malaysian Police) to eradicate crime in Malaysia. In spite of declining total crime index recently, statistic from Crime Investigation Department RMP revealed the increasing of violent crime from 21810 in 2015 to 22326 in 2016. These violent crimes are including murder, rape, and robbery.

Consistent with above crime statistic, adolescents' externalizing problems have raised a serious concern in Malaysia as the statistics of children and adolescents that involved in crime has increased from 4669 in 2015 to 4886 in 2016 (Department of Society Welfare). The most highest criminal offenses that involved by these children include 1666 cases of property-related crime, followed by 1406 cases of drug abuse or selling drug, and 633 cases of people related crimes. Regarding trends of substance use, statistics obtained from National Anti-Drugs Agency (AADK) recorded that the number of drug abuse among adolescents aged 13 to 18 increasing

from 622 cases in 2014 to 717 cases in 2015. Another issue is adolescent sexual and pregnancy, research conducted by the National Population and Family Development Board (LPPKN) found that 2.3% of adolescents aged 13 to 17 had ever do sexual intercourse, and 29.9% of adolescents in this age are exposed to pornography (Fifth Malaysian Population and Family Survey, 2014).

Almost every day, there is news concerning juvenile delinquency. Of late, cases of bullying, a form of aggression has been increase and frequently reported in the local media. In early June 2017, Malaysians were shocked by the death of Malaysian National Defence University (UPNM) navy cadet, Zulfarhan Osman Zulkarnain after being bullied (The New Straits Time, 3<sup>rd</sup> June, 2017). In less than 2 weeks later, another case of bullying was eighteen year old T. Nhaveen, who was violently beaten up and sexually assaulted by a group of boys aged between 16 and 18 (The New Straits Time, 15<sup>th</sup> June 2017). In September 2017, another case that gained public attention was the group of adolescents aged between 11 and 18 who allegedly set fire to Tahfiz School in Datuk Keramat, which led to the death of 23 peoples, 21 students (mostly children) and 2 wardens (The Star, 14<sup>th</sup> Sept 2017). All these cases had intense public fears because the types of crimes which committed by children in Malaysia recently have become more serious. Nevertheless, previous studies have shown the early onset in problem behaviour during adolescence will cause more problem behaviour in later adult life (Bongers et al., 2008; Roche, Ahmed, & Blum, 2008).

Extensive research has established that the age-crime curve with delinquency peaks during adolescence (Landsheer & van Dijkum, 2005). World Health Organization (WHO) recognized adolescence is the period in human development that occurs after childhood and before adulthood, and considered to be the ages from 10 to 19. In year 2016, it is estimated that 29.8% of Malaysia's population is children, with 21% of Bumiputera, 0.17% of Chinese, and 0.06% of Indian. Specifically, there are 5.47 million adolescents in Malaysia, make up approximately 20% of the total Malaysian population (Latiff, Tajik, Ibrahim, Abu Bakar, & Shirin, 2017). In Malaysia, a person under the age of eighteen years is recognised as a child according to Child Act 2001. Therefore, instead of prison, juvenile offenders or adolescents under the age of eighteen who were commit crime will be detent in a juvenile rehabilitation residential school or Sekolah Tunas Bakti (STB) under the Court order. Research showed that offenders are more physical, psychological, and social deficits than in general population (Cropsey, Wexler, Melnick, Taxman, & Young, 2007). Therefore, earlier prevention is crucial to reduce the number of juvenile offenders.

Adolescence is a challenging stage for children due to tremendous changes experienced by them concomitantly during the transition from childhood into adulthood. In the earlier transitional stage, life of adolescent can be very challenging and stressful. Adolescent have to adapt themselves to physical, biological, cognitive, psychosocial, sexual and social changes in order to redefine their roles in families and society. In this period between childhood and adulthood, adolescents are exposed to the numerous challenges arising from their surroundings. The idea of

adolescence being a time of increasing novelty-seeking and risk taking behaviour (Spear, 2000) emphasizes the importance of instil good values and skills for adolescents to face developmental issues, and further make a successful transition into adulthood. Erikson (1994) in his psychoanalytic theory of psychosocial development also has emphasizes the fragile period of 'crisis', which refer to the crucial stage of adolescence for identity development through the exploration and deep internalization of personal values and beliefs. In this identity formation process, the exploration of the religious domains is also important and meaningful (Markstrom, 1999).

Predictors found to be associated with children and adolescents' externalizing problems have been explored in several studies. However, most researchers have typically focussed on the social-ecological factors especially the roles of parents and families, such as parenting behaviour, parental depression, family support, parental attachment, parental knowledge, and parental self-efficacy (Alizadeh, Talib, & Mansor, 2010; Glatz & Buchanan, 2015; Krauss, Baharudin, Krauss, Yacoob, & Jo Pei, 2011; Marceau et al., 2015; Piquart, 2017; Salwina et al., 2013; Sulik, Blair, Mills-Koonce, Berry, & Greenberg, 2015; Yahya & Zulkefly, 2018) without paying much attention to the spiritual aspect (Ismail & Rahman, 2012). Only limited study focussed on individual level factor in predict adolescent externalizing problems. Nevertheless, as children enter adolescence stage, there is increasing challenge on parental influence as the adolescents seek autonomy from their parents (Moed et al., 2015). The adolescence stage also characterized as increasing conflict between adolescents and their parents. Thus, the present study focussed on the individual psychological factor of adolescent religiosity and self-control in explaining externalizing problems among Muslim adolescents.

## **1.2 Statement of Problem**

Externalizing behaviours including aggression, property violation, rule-breaking actions, substance abuse, risky sexual behaviour, and other delinquent activities are evidence in children's outward behaviour where they act negatively on the surrounding environment (Georgiou & Symeou, 2018). Externalizing behaviour have similar term as 'antisocial', 'undercontrolled' or 'conduct problem' (Jianghong Liu, 2004). One of the notable changes during adolescence, the most critical developmental period is the dramatic increase in the prevalence of externalizing problems (Rispe, 2012). Across many region and culture, adolescence, the transition from childhood to adulthood is accompanied by increased of novelty-seeking, risk taking behaviour and externalizing problems (Georgiou & Symeou, 2018; Spear, 2000). In year 2016, there are 4886 adolescents under the age of 18 involved in crimes, with the increment of 6.9% juvenile offenders from year 2015 (Department of Statistics, 2017). Number of drug addicts among adolescents in Malaysia also showed increment from years to years as in 2016, there are 1680 drug addicts aged 13 to 19. In addition, a number of local studies had investigated the prevalence in several externalizing behaviours among school aged adolescents. For example, prevalence of 14% in smoking behaviour (Lee, Kam, & Jagmohni, 2005), 30.2% in truancy (Azhar Shah et al., 2012), 20% in bullying (Wan Ismail, Nik Jaafar, Sidi,

Midin, & Azhar Shah, 2014), 27.9% in violence-related behaviour (Lee, Chen, Lee, & Kaur, 2007), and 1.7% in illicit drugs (Yusoff et al., 2014). The increasing number of adolescents involved in extensive externalizing problems in Malaysia has raised public concern, as it will affect the sustenance of the future generation whom will lead this country (Mallow, 2015).

These externalizing behaviours are problematic because they have a negative effect on the individual and society as well. The severe consequences of externalizing behaviours including unintentional injuries, domestic violence, unintended pregnancy, physical health problems and psychological harm (Idris, 2017). A study in a large sample of secondary school adolescents in Malaysia also indicated high annual injury prevalence rate (34.9%) (Peltzer & Pengpid, 2015). Moreover, the externalizing behaviours in childhood and adolescence have a long term effect as it associated with the persistent of disorder in later adult life (Bongers et al., 2008; Dubow, Huesmann, Boxer, & Smith, 2016; Farmer et al., 2015; Reef, Diamantopoulou, Van Meurs, Verhulst, & Van Der Ende, 2011; Roche et al., 2008; Windle & Windle, 2012). Given the high prevalence of externalizing problems and its negative consequences to emotional, physical, and economic for both the individual and community (Kuen & Wan Jaafar, 2017), there is a critical need for more research regarding the underlying factor of this problem.

In response to the rise of adolescent problem behaviour, there has been growing interest in the research on psychology of religion across many countries. It is important to study the factor of religiosity as it is one of the universal and influential social institutions that significantly influence on people's behaviours, attitudes, and values (Mokhlis, 2009). Nevertheless, adolescence stage is also recognized as a crucial period for religious development (Desmond, Morgan, & Kikuchi, 2010). Religiosity widely considered to be important to wide range of adolescent's development outcomes. In the literature, religiosity is consistently associated with low rates of deviance and less involvement in many of the risky externalizing problems, including substance use, risky sexual behaviour, and aggression (Chamrathirong et al., 2013; Desmond, Ulmer, & Bader, 2013; Hardy & Raffaelli, 2003; Johnson, Jang, Larson, & De Li, 2001; Kerley, Copes, Tewksbury, & Dabney, 2011; Landor, Gordon, Gibbons, et al., 2011; Luk, Emery, Karyadi, Patock-peckham, & King, 2012; Manlove, Logan, Moore, & Ikramullah, 2008; Milot & Ludden, 2009; Pirutinsky, 2014; Rostosky, Wilcox, Wright, & Randall, 2004; Shepperd, Miller, & Smith, 2015). Social control theory (Hirschi, 1969) suggest that connections to conventional institutions such as religion may control and inhibit externalizing behaviours. However, most studies on religiosity tended to relies heavily on Christian or Western population (Reisig, Wolfe, & Pratt, 2012). It is noted that the concept of religiosity in Muslim context is unique from other religion. Thus, there is a need for more studies of religiosity in Islamic societies (Koenig & Shohaib, 2014), especially in Malaysia which majority of the population are Muslims and also considered as country that have strong religious influence (Haque & Masuan, 2002).



Haque and Masuan (2002) in his comment on the issues in the psychology of religion among Muslim population also points out the problem in quantification of *Iman* (belief), where it would be impolite to question or analyse religious beliefs within the Malay culture which is eclipsed by strong religious influence. Dimension of belief is hard to measure in Muslim because belief is the basic element that supposed to apply to every Muslims (Khraim, 2010). By nature, religious behaviour is observable as compared to religious belief. Therefore in this research, religiosity mainly emphasizes the Islamic religious practices manifested in adolescent's daily behaviour and actions via the full obedience compliance to Allah's commands.

In recent years, there has been an increasing interest in psychology of Islam. A growing empirical studies has recognises the importance and centrality of Islam in the lives of Muslims (Abdel-Khalek & Naceur, 2007; Abu-Raiya & Pargament, 2011; French, Christ, & Lu, 2014; Maes, Stevens, & Verkuyten, 2014; Sateemae, Abdel-Monem, & Sateemae, 2015), including Muslims in Malaysia (Nadeem, Ali, & Buzdar, 2017; Noon, Haneef, Yusof, & Amin, 2003). Religiosity consistently has positive association to desirable psychological well-being indicators (e.g., self-esteem, happiness, life satisfaction) and negatively associated with undesirable well-being indicators (e.g., depression, stress, substance use, social problems, and psychopathology) among Muslims.

Nevertheless, in the context of adolescent problem behaviour, only little research has been conducted on the associations between adolescent religiosity and externalizing problems among Muslim society. Despite available studies differ in their focus, with some research focusing on the broad concept of problem behaviour (Chowdhury, Glenwick, & Mattson, 2015; French et al., 2014; Maes et al., 2014) and other investigations focusing on one specific types of externalizing problems such as aggression, risky sexual behaviour, crime, and substance use (Badr, Taha, & Dee, 2014; Landor, Gordon, Gibbons, et al., 2011; Pirutinsky, 2014; Unlu & Sahin, 2016), the results were similar, showing the significant effect of religiosity. However, by assessing one specific problem depicted only a limited part of externalizing problem. Therefore the current study aims to examine the relationships between religiosity and the broadband externalizing construct which also including behaviours such as stubborn, teasing, truant, cheating, and run away from home. Based on the results of earlier study and following to Islamic perspective, it was hypothesized that adolescent religiosity have significant relationship with wide range of externalizing behaviours among Muslim adolescents.

Despite the robust protective role and importance of religiosity across many countries, less understood however, is the process by which religiosity operate such effect. Systematic review by Dew and Wong (2006) also suggest the need for conducting mediation analyses to explain the mechanism or mediating process whereby religiosity operates on adolescent behaviour (Johnson et al., 2001; Landor, Gordon, Gibbons, et al., 2011). Most of the research carried out on adolescent externalizing problem behaviour has provided support for operation of religiosity through self-control, since religiosity is frequently demanding of self-control

resources. As suggested by McCullough and Carter (2013), “religion fosters the development and exercise of self-control and self-regulation, which lead to beneficial outcomes in a variety of behavioural and psychological domains”. In Islamic teaching also commands Muslim to choose the right path and control temptation from desire and prohibited behaviour by obeying to Allah guideline (El-Aswad, 2014). In fact, various Islamic practices also exercised self-control and self-discipline. Therefore, this study tested self-control as a potential mediating role.

Self-control is refers to an individual’s ability to inhibit impulses that are unaccepted by society, and to change and regulate behaviour, thoughts, and emotions (Tangney, Baumeister, & Boone, 2004). Higher self-control was associated to lower mental and physical health symptoms (Boals, vanDellen, & Banks, 2011; Tangney et al., 2004). A number of previous research also has documented that low self-control is not only associated with crime (eg., Kerley et al., 2011; Pirutinsky, 2014; Reissig, Wolfe, & Pratt, 2012), but also with analogous behaviours (Desmond et al., 2013; Laird, Marks, & Marrero, 2011; Pung, 2015). In particular, religiosity strengthened self-control abilities such as delayed gratification and resist temptation, which in turn deterring externalizing problems including aggression (Shepperd et al., 2015), risky sexual behaviour (Vazsonyi & Jenkins, 2010), substance abuse (Desmond et al., 2013), and criminal behaviour (Pirutinsky, 2014). What remains unclear, however, is whether the same mechanism process also applies to Muslim adolescents in Malaysia. The exploration of the underlying process is crucial as it may provide a better understanding on the development of problem behaviour at an early stage. Additionally, the finding will help in designing a holistic intervention and prevention programs using Islamic perspective.

Furthermore, there is limited number of studies that have addressed the potential differential effects of socio-demographic and contextual variables on the mechanism model. According to social cognitive theory, external environment factor also influence behavioural outcome of a person (Bandura, 1989). It is suggested that the strength of association between adolescent religiosity and externalizing problem behaviours could be moderated by certain socio-demographic characteristics and religious socialization context. Implications for these results will be useful for practitioners to consider the socio-demographic background of adolescents in designing programs for them. Apparently, the differences in levels of adolescent religiosity and externalizing problem behaviours have been established for certain subgroups (e.g., males vs. females, intact vs. non-intact families). There is still uncertainty, however, whether certain socio-demographic and contextual variables might moderate the strength of associations between religiosity and externalizing problem behaviours. To assess this problem, this study examined the socio-demographics (adolescent gender, age, and family structure) and parental religious socialization as moderators. Selection of the moderators suggests that the strength of the relationships between religiosity and externalizing problems may vary across gender, age, family structure, and parental religious socialization.

Gender differences in religiosity and externalizing problems have been focus of much prior research. It has been consistently shown that female adolescents are more religious (Abdel-Khalek & Naceur, 2007; Sateemae et al., 2015), while male adolescents reported more externalizing problem behaviour (Bongers et al., 2008; Finkenauer & Baumeister, 2005; Ortuno-Sierra, Fonseca-Pedrero, Sastre i Riba, & Muniz, 2017; Risper, 2012; Stolz, Olsen, Henke, & Barber, 2013; Decovic, 2004). However, these bivariate findings lack information on the role of gender on the link between religiosity and externalizing problem behaviour. Little study has considered whether males and females differ in how religiosity is associated with externalizing problems in Muslim contexts. Therefore, it is expected that the effect of religiosity on externalizing problem behaviour may be different by gender. This expectation is based on the notion that religious socialization and societal expectation tends to differ between males and females.

The next socio-demographic consideration is adolescent's age. Given that, religious attitudes and behaviours are change over the life course and is likely to occur during this transition stage of adolescence (Desmond et al., 2010). In addition, there is a significant age effect on both religiosity and externalizing problems (Cauce et al., 2000). Several studies have reported that younger adolescents having higher religiosity (eg. Johnson), while older adolescents are more prevalent of externalizing problems (Bebiroglu, Roskam, & van der Straten Waillet, 2015; Tambelli, Laghi, Odorisio, & Notari, 2012). Therefore, possible age differences also were taken into account in this study.

Besides gender and adolescent's age, this study expected the buffering effect of religiosity is across family structure. Disrupted families usually having degeneration in standard of living (Abdul Latiff, Tajik, Ibrahim, Shah Abu Bakar, & Shameema Albar Ali Shirin, 2017) and may impact on children development. A considerable amount of literature (Anderson, 2002; Petts, 2009) has shown that adolescent in intact families generally fare better than adolescent in non-intact families. Study conducted by Simons, Simons, and Wallace (2004) revealed that adolescents from divorced or single-parents families (non-intact) have two to three times possibility to engage with problem behaviours. A recent local study by Krauss and colleagues (2012) also provide evidence of higher religiosity among Muslim adolescents from two-parent families. In a latest content analysis of record files from Malaysian Islamic Development Department (JAKIM), Zainab, Wan-Ibrahim, and Asyraf (2014) points out that the divorce rates among Malaysian Muslims has increased significantly. In 2016, there are 39,482 registered divorce cases among Muslim (*Social Statistics Bulletin*, 2017). The rising divorce rate and adolescent social problems has urge this study to examine whether the expected pattern of religious effect mechanism applied to the same extent to adolescents from intact and non-intact family, in order to clarify the possible moderating role of family structure. This assumption was made due to the extensive research that has indicated the difference in religiosity and adjustment problem for child in intact families than those from non-intact families.

It is also expected that adolescent religiosity to be more strongly associated with externalizing problems in high parental religious socialization than the lower. The socialization process underpinned by social cognitive theory postulates that children learn through observation, imitation of others, and reinforcement (reward and punishment). Some previous studies had recognized the role of social context in adolescent religious development (French, Purwono, & Triwahyuni, 2011; Richard J. Petts, 2009; Regnerus, Smith, & Smith, 2010) and adolescent behavioural outcomes (Figge, Martinez-Torteya, & Weeks, 2017; Petts, 2009).

In summary, considering the importance of religiosity and self-control for Muslim adolescents, the present cross sectional study aims to develop a structural model to examine the associations between adolescent religiosity and externalizing problems among Muslim adolescents of Approved School (Sekolah Tunas Bakti) in Malaysia, by considering potential mediation roles of self-control and potential moderation roles of parental religious socialization and selected socio-demographic variables (gender, age, and family structure). On the basis of existing literature, the association between adolescent religiosity and externalizing problems was hypothesized to be mediated through adolescent self-control. Furthermore, the study expected a socio-demographic difference (gender, age, and family structure) in the strength of the mechanism model. Stronger protective effect of religiosity is expected for adolescents from intact family, female, younger, and adolescents with better parental religious socialization.

### **1.3 Research Question**

In particular, this study sought to answer the following specific research questions:

1. Do adolescent religiosity, self-control, externalizing problems, and parental religious socialization vary across different socio-demographic contexts (gender, age, family income)?
2. What is the relationship between adolescent religiosity and externalizing problems?
3. Does self-control mediates the relationship between adolescent religiosity and externalizing problems?
4. Do structural relations between adolescent religiosity, self-control, and externalizing problems vary by socio-demographic variables (adolescent's gender, age, and family structure) and parental religious socialization?

### **1.4 Theoretical Perspective**

Numerous theories provide a framework for understanding the process of human behaviours. However, Social Control Theory (Hirschi, 1969) and Social Cognitive Theory (Bandura, 1989) were found to be most relevant to the present study and thus will be used as a theoretical framework. Both theories are most comprehensive to explain the complexity of the adolescent externalizing behavioural problems. The



integration of these theories provide in theoretical evidences in the relationships between adolescent religiosity, self-control, externalizing problems, and parental religious socialization.

#### 1.4.1 Social Control Theory

This study suggested that Social Control Theory developed by Hirschi (1969) provides a useful account of why adolescent have tendency to have externalizing behavioural problem. Numerous other religious-crime studies used this theory to explain the relationship between adolescent religiosity and outcomes. Social Control Theory is also known as Social Bond Theory which focuses on the sociological process or bond between individual with conventional society or institution such as family, community, religion, and school. This theory is one of the most influential and tested theory that has been extensively used by researchers to explain the predictor of crime act or deviant behaviour. Instead of questioning “why a person commits crime”, Hirschi (1969) began his theory with the question of “why people obey the rules of society and do not commit crime”. In his book of ‘Causes of Delinquency (1969), Hirschi explains that people refrained from delinquency because they developed and have a strong social bond that ties them to society. Social control theory (Hirshi, 1969) asserts that, when the social bond that ties a person to conventional society is strong, a person will obey the rules of society and decrease the probability to commit in delinquent act or criminal.

There are four components of social bond which promote conformity referred to *attachment*, *involvement*, *commitment* and *belief*. The first component of *attachment* refer to the extent to which a person is emotionally attached to significant others, such as parents, family, teacher, and religious institution. The second component of social bond which is *involvement* referred to the participation in conventional activities associated with how a person spends their time. It was predicted that a person who busy with conventional activities are busy and have less time to engage in delinquent activities. The next component of the bond to conventional society is *commitment*, which refers to the investment of time, energy, and effort in conventional society or institution such as education and career. If people have a strong commitment in society, they will fear the consequences of losing something if they engage in delinquency. Another social bond that identified in this theory is *belief* which people understand and adhere to the social rules and norms in society. It is suggested that people who had a strong ties in belief component are more likely to shared value in the social setting and more sensitive to the right of others, which in turn result in conformity to social rules. Taken together, social control theory emphasizes the importance of social bond which indirectly control our behaviour.

With regard to religiosity, social control theory proposed that religious doctrine helps to regulate human behaviour and lower the probability to commit in deviant behaviour. Meanwhile, religious institution also identified as one of the institution of social control which promote conformity by developing and strengthening individual bond of attachment, involvement, commitment and belief with conventional society.

Generally, the frequency of an individual's religious activities such as prayer, and reading religious scripture often referred to religious involvement. The second component of religious commitment sometimes measured as an individual's church attendance or religious membership. While religious attachment, often referred to the importance of religious in an individual's life. The last component which is religious belief often measured by an individual's religious faith such as belief in God, belief in hereafter.

Guided by Social Control Theory, this study focus on Islamic religiosity which could be considered as bonding mechanism and potentially deter adolescents from externalizing behaviour problem. Muslim adolescents with high religiosity should presumably to have a close attachment with God and religious institution (i.e., mosques and religious group), committed to Islamic teachings by following Quran and Hadith, involved in religious-oriented activities and practicing religious behaviour accordance to Islamic teaching, and have a strong religious and conventional belief. Therefore, this study hypothesized that the strong ties with religiosity, could probably predict in lowering externalizing behaviour among Muslim adolescent.

The evolution of social control theory, Hirschi and Michael Gottfredson were then reformulated and proposed self-control theory in 1990 to explain delinquency. While social control theory is more focused on indirect social control, self-control theory focused on internal control which involving the individuals themselves. In the book titled 'General Theory of Crime', Gottfredson and Hirschi (1990) proposed that low self-control is the key factor of all criminal behaviors, as well as the analogous behaviors (deviant behaviors that resemble crime). Self-control theory asserts that internal control is a vital component, as when people's deficits in self-control, they increase the tendency to commit with criminal and delinquency.

In this study, it is hypothesized that adolescent with high religiosity are more likely to increase self-control which in turn lower the level of externalizing behaviour problems. In the Islamic perspective, self-control is embedded and implemented in the religious teaching and practices. Muslims believes that paradise will be the reward for the people who pleasing God and restrained themselves from wrong doing.

Gottfredson and Hirshi (1990) identified six characteristics of low self-control person, including impulsivity, the desire to take risks, a tendency to favor physical activity rather than mental activity, a preference for simple tasks, selfishness and lack of concern for the well-being of others, and a bad temper. They also claimed that individuals that engage in crimes are also engage in analogous behaviors that provide short term gratifications such as smoking, gambling, risky sexual behavior and substance use.

This theory also suggests that people are born without self-control, a person adopts self-control through the socialization by parents (a form of direct control), particularly parental discipline and monitoring in childhood (Gottfredson & Hirschi, 1990). Moreover, this theory also argues that self-control is formed early in life and remains stable around age 8 then relatively stable across the life course. A number of previous research has documented that low self-control is not only associated with crime (eg., Kerley et al., 2011; Pirutinsky, 2014; Reisig et al., 2012) but also with analogous behaviors (eg., (Desmond et al., 2013; Laird et al., 2011). Thus, this study predicts self-control to be a mediating variable that controls the impact of religiosity on adolescent outcomes.

#### **1.4.2 Social Cognitive Theory**

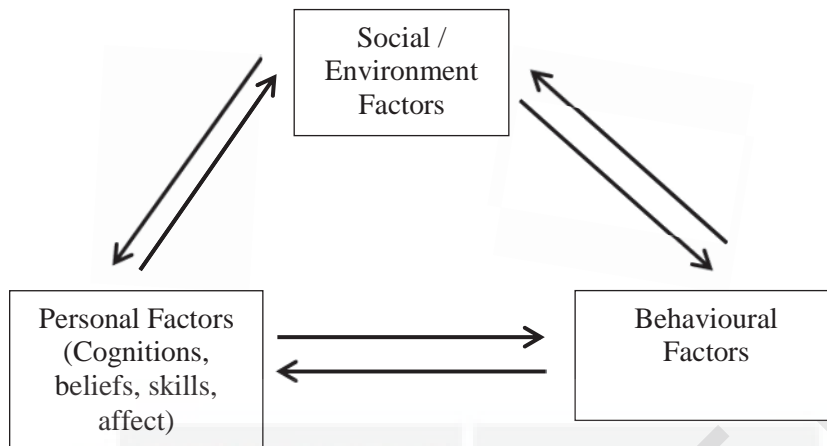
Social cognitive theory proposed by Albert Bandura (1989) has been widely used in socialization research especially in examining the effect of parenting on their child or adolescent's outcomes. In fact, social cognitive theory has been tested in numerous religiosity-crime research (Kang & Romo, 2011; Schreiber & Culbertson, 2014). As illustrated in figure 1, social cognitive theory emphasizes the continuous reciprocal interaction between cognitive, behaviour and external environmental factors in explaining human behaviour (Bandura, 1989). In this model of reciprocal causality, internal personal factors, behavioural patterns, and environmental influences all operate as interacting determinants that affect one another reciprocally.

The interaction between personal and behavioural factors reflects that human behaviour is influenced by what they believe, think, and feel. The personal factor including cognitive, affective, and biological events give direction to someone's action. This theory highlighted the proactive nature of human in influencing their own behaviour through their self-system.

This theory also provides insight into the parents' role in the religious socialization process, as this theory posits that children learn by observing (and later imitating) the role models (Bandura, 1969). These processes of learning also apply in religion, where children are learning religiosity by observing and imitating the religious behaviour and attitude of the people in their surrounding particularly their parents.

In addition to the framework of social cognitive theory, spiritual modelling and spiritual capital perspectives describe the process of religious socialization. The spiritual modelling suggests that individuals develop their religiosity and spirituality through 'observational learning' which involves the observing and imitating process of one or more spiritual or religious exemplar (King & Mueller, 2003). Spiritual exemplars serve as a model including parents, teacher, friend, and religious leader. Thus, having religious parents may foster the development of religiosity of the adolescent. While spiritual capital perspective indicates the extent to which the religious is actively shared with another. This perspective suggests that adolescents are more likely to be religious when they actively participate with the spiritual

interaction with parents such as discussing religious issues, praying together, and attending religious services.



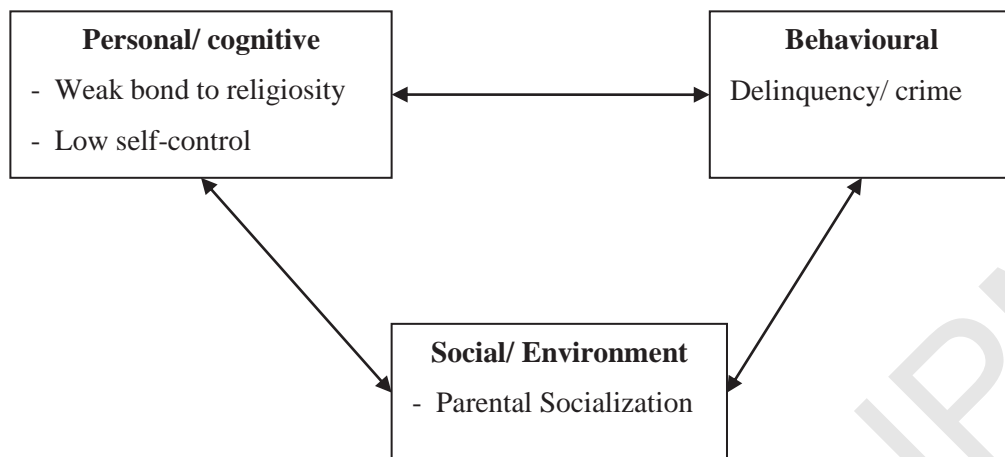
**Figure 1 : Triadic Reciprocal Causation Model (Bandura, 1986)**

However, some of the learning process cannot be fully explained by direct reinforcement. Rather than directly causing the behaviour, social cognitive theory further suggests to consider learner's psychological mechanisms of self-system (Bandura, 1989). In this research, it is expected that adolescent's personal factor of religiosity effect externalizing behaviour problem through self-control while environmental or social factor of parental religious socialization and socio-demographic served as potential moderator.

### **1.4.3 Integration of theories**

The integration of social control theory, self-control theory, and social cognitive theory provide rationale in predicting the relationships among the variables in the study. The interrelationships can be seen from the theoretical model as shown in Figure 2. This model integrates Bandura's social cognitive theory at the contextual level, and Hirschi's social control theory at the individual level.

Moreover, Bandura's theory guides the present study at the conceptual level (personal, behavioural, and social factor), whereas Hirschi's at the operational level (religiosity, self-control, and delinquency). As illustrated in Figure 2, the integration of the conceptual and operational of these two theories provides a perfect representation for analysis of the phenomena of interest for the present study.



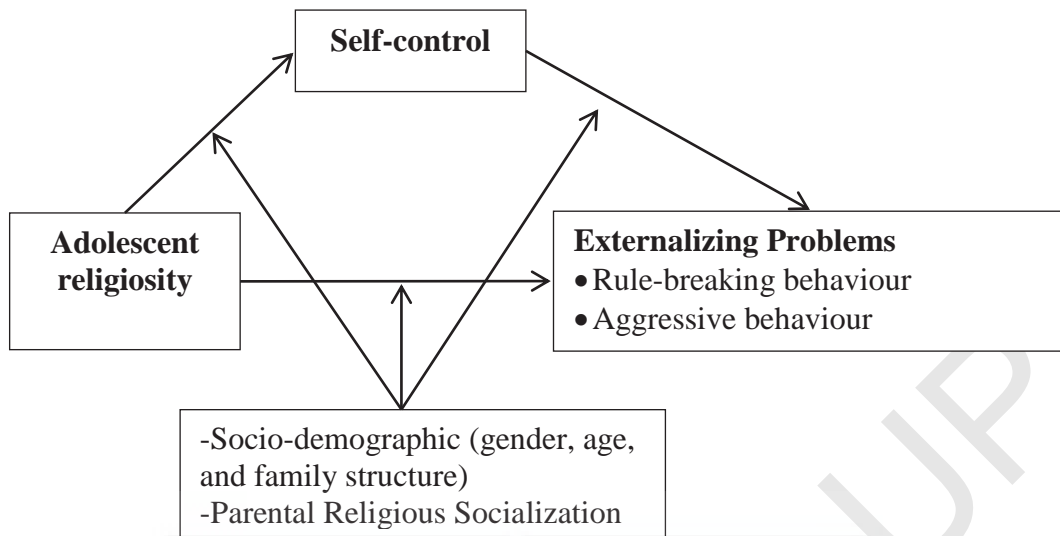
**Figure 2 : Theoretical Model**

### **1.5 Conceptual framework**

Based on the integration of social control theory (Hirschi, 1969), self-control theory (Gottfredson & Hirschi, 1990) and social cognitive theory (Bandura, 1989) as discussed in following section, the conceptual framework for the present study is as illustrated in Figure 3.

The main relationship in the study is between adolescent religiosity and externalizing problems which is divided into rule-breaking and aggressive behaviour. Hirschi's social control theory suggests religiosity as one of the social bond that strengthen individual bond of attachment, involvement, commitment and belief. This strong social bond conform a person from committing deviant behaviour or crime. Islamic religiosity provides a guideline to direct Muslim's behaviour to be righteous and having good conduct, as well as keep away from wrong doing. Therefore, it is suggested that there is a relationship between adolescent religiosity and externalizing behaviours.





**Figure 3 : Conceptual Model Framework**

In connecting the relationship between religiosity and externalizing behaviour, self-control was proposed as a potential mediator in the study. The evolution of social control theory had proposed self-control theory, which more focus on internal control of individual, as when people low in self-control, they tend to commit delinquent or crime. As in Islamic religious, Muslims are required to control their temptation and *nafs* (soul or self) from desire and prohibited behaviours. Hence, the study suggests self-control to be the potential mediator which transmits the effect of religiosity on externalizing behaviours.

Self-control theory also posits that self-control is developed in early childhood through the socialization process by the caregivers. This is parallel with Bandura's social cognitive theory which stresses the interaction process between personal and environment (contextual) factor in explaining a child's behaviour. In this study, adolescent religiosity and self-control as personal factor that give impact on adolescent externalizing behaviour. As indicated by Bandura's social cognitive theory, parental socialization served as a contextual factor that influences a child development. In this regard, the relationship between adolescent religiosity and externalizing problems was predicted to differ across the personal and contextual factors including parental religious socialization, adolescent's gender, age, and family structure.

To summarize, the independent variable of the current study is adolescent religiosity while the dependent variable in the current study is adolescent externalizing problems which encompassed aggressive and rule-breaking behaviour. Self-control served as a potential mediator between adolescent religiosity and externalizing problems. While parental religious socialization and selected socio-demographic variables including adolescent's gender, age, and family structure served as potential moderators in the model.

## 1.6 Research Objectives

General objective:

The present study aims to examine the relationships between adolescent religiosity and externalizing behaviours of juvenile adolescents, and the role of self-control, socio-demographic, and parental religious socialization on the relationships.

The specific objectives for the study as following:

1. To describe adolescent religiosity, self-control, externalizing problems, and parental religious socialization across varied socio-demographic contexts.
2. To examine the relationships between adolescent religiosity and externalizing problems (aggression and rule breaking behaviour).
3. To examine the mediating effect of self-control on the relationship between adolescent religiosity and externalizing problems (aggression and rule breaking behaviour).
4. To examine the moderating effect of socio-demographic variables (adolescent's gender, age, and family structure) and parental religious socializations (maternal and paternal) on the structural relations between adolescent religiosity, self-control, and externalizing problems.

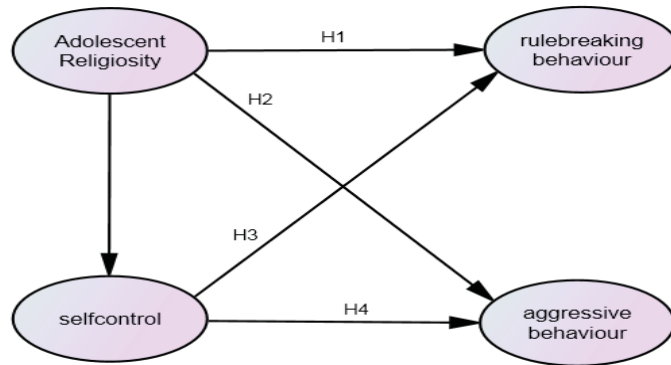
## 1.7 Hypotheses

Based on the theoretical perspectives, findings from past studies, and research objectives, the hypothesized model for the present study is presented in Figure 3. Objective 2: To examine the relationships between adolescent religiosity and externalizing problems (aggression and rule breaking behaviour).

- H<sub>1a</sub>: Adolescent religiosity is significantly related to rule-breaking behaviour.  
H<sub>1b</sub>: Adolescent religiosity is significantly related to aggressive behaviour.

Objective 3: To examine the mediating effect of self-control on the relationships between adolescent religiosity and externalizing problems.

- H<sub>2a</sub>: Adolescent religiosity is indirectly related to rule-breaking behavior, via self-control.  
H<sub>2b</sub>: Adolescent religiosity is indirectly related to aggressive behavior, via self-control.



**Figure 4 : Hypothetical Model**

**Objective 4:** To examine the moderating effect of socio-demographic variables (adolescent's gender, age, and family structure) and parental religious socialization on the structural relations between adolescent religiosity, self-control, and externalizing problems.

- H<sub>3a</sub>: The structural relations between adolescent religiosity, self-control and externalizing problems vary across gender.
- H<sub>3b</sub>: The structural relations between adolescent religiosity, self-control and externalizing problems vary across adolescent age.
- H<sub>3c</sub>: The structural relations between adolescent religiosity, self-control and externalizing problems vary across family structure.
- H<sub>3d</sub>: The structural relations between adolescent religiosity, self-control and externalizing problems vary across paternal religious socialization.
- H<sub>3e</sub>: The structural relations between adolescent religiosity, self-control and externalizing problems vary across maternal religious socialization.

## 1.8 Significance of Study

A study of adolescent behavioural problem in the Malaysian context is important for several reasons. First, the findings in this study should make an important contribution to the field of child development psychology, especially in the context of Muslim adolescents in correctional setting. This study is concern on the adolescence which is the most significant period.

This study is also one of the religious studies that uncover the importance of Islamic religious education. Specifically, this present study makes a major contribution to research on adolescent behavioural problem among adolescents by demonstrating the importance of religiosity on adolescent behaviour adjustment. Understanding the link between religiosity and externalizing behavioural problem would provide essential practical implications. Specifically, it facilitates practitioners and policy makers in strategizing religious-based preventative intervention and programs to remediate behavioural problems among Malaysian adolescents.



In addition, this study also sheds new light on the underlying mechanism of the effect of religiosity on adolescent externalizing problems. Understanding of how religiosity deplete behavioural problem among adolescent should help greatly for practitioners in designing programs to reduce juvenile delinquency from Islamic perspective. Self-control has been shown to influence adolescent outcomes. This study will incorporate self-control as potential mediator of the relationship between religiosity and externalizing behaviours.

The identification of significant moderator in this mechanism process also benefit to practitioners in designing and implementing programs in Muslim adolescents. If the effect of religiosity was shown to contain differences across socio-demographic variables, there would implications for practitioners to develop specific theoretical explanations that can used to design assessment and intervention strategies by considering the socio-demographic differences.

## **1.9 Definition of Terminology**

The following major terms are conceptually and operationally defined as used in this study:

### **1.9.1 Adolescence**

Conceptual: World Health Organization (WHO) describes adolescence as the transitional stage from childhood into adulthood, which typically between ages 10 and 19. However, Sawyer, Azzopardi, Wickremarathne, and Patton (2018) recently has proposed that adolescence might best be considered as ranging from 10 to 24 years.

Operational: Operationally, in this study, it corresponds to Muslim juveniles in Sekolah Tunas Bakti (Approved School) aged between 13 and 18 years old.

### **1.9.2 Religiosity**

Conceptual: In the Islamic perspective, religiosity is defines by the concept of '*din*' which denotes the 'faith, beliefs and practices and teachings adhered to by the Muslims individually and collectively as a Community and manifesting itself altogether as an objective whole as the Religion called Islam' (Al-Attas, 1995). It refers to the state of a Muslim who belief to Allah, and practice righteousness in his life (Salleh, 2012). Religiosity in Islam is also expressed through predefines behaviours and practices.

Operational: For the purpose of this study, religiosity refers to the aggregated score of the responses on the 15 items of Adolescent Religiosity scale (Baharudin, Zulkefly, & Zarinah, 2015) which measures the

frequency of the major Islamic ritual practices as well as behaviour reflecting important Islamic values.

### **1.9.3 Externalizing problems**

**Conceptual:** Externalizing problem is explicit, disruptive behaviour that often involve the destruction of societal norms, the destruction of property, or harm to others (Keil & Price, 2006). Similar term for externalizing problem including 'antisocial', 'undercontrolled', and 'conduct problem' (Jianghong Liu, 2004). Generally, it refers to the outward behaviour in which the adolescents act negatively on surrounding environment such as violence, drug abuse, and excessive use of alcohol.

**Operational:** For this research, it refers to the aggressive and rule-breaking behaviours measured using the Youth Self Report (Achenbach, 1991) which consists of 3 point Likert scale. Higher score indicates higher externalizing problems.

### **1.9.4 Self-control**

**Conceptual:** Self-control refers to the ability to inhibit impulses that are unaccepted by society, and to change and regulate behaviour, thoughts, and emotions (Tangney et al., 2004).

**Operational:** In this study, adolescents' self-control refers to the Respondent's score on 13 item Brief Self Control scale (Tangney et al., 2004). Adolescent with high score indicate high self-control.

### **1.9.5 Parental religious socialization**

**Conceptual:** According to Schreiber and Culbertson (2014), religious socialization refers to the influence of social agents (including parents) on an individual's religious belief and understandings. Bebiroglu et al. (2014) defined parental religious socialization as a process by which parents exchange their knowledge, behaviours, values, customs, norms, and beliefs about religion with their children.

**Operational:** For the current study, it is the total scores on Parental Religious Socialization scale (Baharudin et al., 2015) which measure the interaction process by which parents influence child's religious belief and practices. The scale consists of 25 items with 5 point Likert scale. Higher score demonstrate more frequent religious socialization process by parents. Moreover, the research distinguished maternal religious socialization from paternal religious socialization.

## 1.10 Scope of the study

The present study is aimed to examine the relationships between adolescent religiosity, self-control, and externalizing behaviours of juvenile adolescents. Since majority of the juveniles in Sekolah Tunas Bakti is Muslim, the study exclusively focused on juveniles adhering to Islamic religiosity. Therefore the results for the study do not represent the views of adolescent in general population or with other religions.

In term of Islamic religiosity measurement, it is complex to measure the construct of religiosity accurately due to its complexity. Up to now, there is no established agreement among scholars on the items or dimensions in measuring Islamic religiosity (Sateemae et al., 2015). However, in the present study, the component of religious behaviour and practice are being focussed, rather than religious belief. The likelihood that religious practice is more observable by the frequency of the practice, and therefore the present study using indicators of religious behaviour and practice to measure religiosity. Example of major practice requirements and important Islamic values that were measured in the study including prayer, obedient to parent, cover *aurah*, and recite *Quran*.

With regard to externalizing behaviours, the present study focuses on two related but independent dimensions, namely rule-breaking and aggressive behaviours. It is according to view of point that externalizing behaviours may be better conceptualized in dimensional terms (Dick, Aliev, Wang, Grucza, & Schuckit, 2008). Rule breaking behaviours include delinquent behaviours such as stealing, using drugs, truancy, running away from home, and drinking alcohol. While aggressive behaviours include fighting, threatening, destroy at home and at school.

## 1.11 Chapter summary

This chapter provides a brief overview of the background of this study along with the statement of problem, and research questions. In response to the increasing number of children committed in crime and the consequences, this study aims to examine whether religiosity and self-control contribute to adolescent externalizing problems. Then it goes to the discussion of the theories that were deemed important in explaining and understanding the relationships between study variables. The discussion of the integration of theories which develop the conceptual model was also provided, followed by the objectives and hypotheses for this study. Generally, this study examine the relationship between religiosity and externalizing problems, the mediation effect of self-control, and the moderation effect of parental religious socialization and socio-demographic. The last section in this chapter has outlined the conceptual and operational definition of the variables that involves in the study. Next, the following chapter will review and discuss the literatures related to the study.

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