



UNIVERSITI PUTRA MALAYSIA

***INDIVIDUAL, FAMILIAL AND EXTRAFAMILIAL FACTORS OF SUICIDAL
IDEATION AMONG ADOLESCENTS IN SELANGOR, MALAYSIA***

WU SHIN LING

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IDEATION AMONG ADOLESCENTS IN SELANGOR, MALAYSIA**

By

WU SHIN LING

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

December 2016

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

INDIVIDUAL, FAMILIAL AND EXTRAFAMILIAL FACTORS OF SUICIDAL IDEATION AMONG ADOLESCENTS IN SELANGOR, MALAYSIA

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December 2016

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Suicide phenomenon has become the leading cause of death worldwide especially among adolescents. Prior to committing suicide, suicidal ideation occurs. Suicidal ideation refers to the thoughts or desires to end one's own life. In Malaysia, suicide cases are increasing rapidly, yet little research has been done especially among adolescents. In addition, past research mostly focus on psychiatric patients in clinical settings. Therefore, the current study was conducted to investigate the individual, familial and extrafamilial factors of suicidal ideation among adolescents in Selangor, Malaysia.

This study is quantitative in nature and utilized a descriptive and correlational research design. Survey method was used to collect the data. A total of 682 school-going adolescents aged 14 to 17 were recruited as respondents by using multistage cluster sampling technique. Data from the self-administered questionnaires were analyzed using SPSS. Six instruments were administered in this study namely the Positive and Negative Suicide Ideation Inventory, Network of Relationships Inventory-Relationship Quality Version, Children's Hope Scale, Perceived Stress Scale, General Self-efficacy Scale, and Satisfaction with Life Scale. Descriptive, bivariate and multivariate statistics were used in data analysis to address the specific objectives of the study.

This study found that 60% of the respondents reported having suicidal thoughts. Findings from the ANOVA tests showed that there were no ethnic groups differences in suicidal ideation among adolescents. Moreover, the independent samples t-test analysis indicated no sex differences in suicidal ideation among adolescents. The independent samples t-test analysis also revealed that there were significant differences among adolescents with and without suicidal ideation in terms of hope, stress, self-efficacy, life satisfaction, maternal, paternal, peer and teacher relationship. Adolescents with suicidal ideation had

lower level of hope, self-efficacy and life satisfaction. They also experienced higher level of stress, and more negativity with their mother, father, peer, and teacher.

Binary logistic regression highlighted that stress, life satisfaction, paternal and peer relationship were the unique predictors of suicidal ideation among adolescents. Stress was the strongest predictor, followed by life satisfaction, peer relationship, and lastly paternal relationship.

Parallel multiple mediator analysis using SPSS PROCESS macro by Preacher and Hayes (2004) indicated that only stress partially mediated the relationships between maternal, paternal, and peer relationship with suicidal ideation. This showed that maternal, paternal and peer relationships not only directly affect suicidal ideation, but also indirectly affect suicidal ideation through stress. Stress appeared to be the only mediator in this study indicating stress as the most important factor of suicidal ideation among adolescents as stress explained the relationship between maternal, paternal and peer relationships with suicidal ideation.

The integrated investigation on the individual factors (hope, stress, self-efficacy and life satisfaction), familial factors (maternal and paternal relationship), and extrafamilial factors (peer and teacher relationship) provide insights on the factors affecting suicidal ideation among adolescents. The findings from this study implied the seriousness of suicidal ideation and the critical contribution of stress in suicidal ideation among adolescents in Selangor, Malaysia. Both familial and extrafamilial factors may also contribute to suicidal ideation. Therefore, to reduce suicidal ideation among adolescents, individuals and professional working with adolescents must focus on stress management in order to provide adolescents with the necessary skills needed to survive in this challenging society. Parents also need to be equipped with the appropriate skills to establish a more quality relationship with their children. Lastly, adolescents need to improve their social skills to acquire a better relationship with their peers.

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

**FAKTOR INDIVIDU, KELUARGA DAN LUAR KELUARGA UNTUK IDEA
BUNUH DIRI DALAM KALANGAN REMAJA DI SELANGOR, MALAYSIA**

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Fenomena bunuh diri telah menjadi punca utama kematian di seluruh dunia terutamanya dalam kalangan remaja. Sebelum membunuh diri, idea bunuh diri biasanya berlaku terlebih dahulu. Idea bunuh diri merujuk kepada pemikiran atau hasrat seseorang untuk menamatkan nyawa sendiri. Di Malaysia, kes bunuh diri telah meningkat dengan pesat. Namun tidak banyak penyelidikan yang telah dilakukan terutamanya dalam kalangan remaja. Tambahan pula, kebanyakan kajian lepas menumpukan kepada pesakit psikiatri dalam persekitaran klinikal. Oleh itu, kajian ini dijalankan untuk meneliti faktor individu, keluarga dan luar keluarga tentang idea bunuh diri dalam kalangan remaja di Selangor, Malaysia.

Kajian ini bersifat kuantitatif dan menggunakan reka bentuk kajian deskriptif dan korelasi. Kaedah tinjauan telah digunakan untuk mengumpul data. Seramai 682 remaja bersekolah berumur 14 hingga 17 telah diambil sebagai responden menggunakan teknik persampelan berkelompok pelbagai peringkat. Data daripada soal selidik yang ditadbir sendiri dianalisis dengan menggunakan SPSS. Enam instrumen telah ditadbirkan dalam kajian ini iaitu Positive and Negative Suicide Ideation Inventory, Network of Relationships Inventory-Relationship Quality Version, Children's Hope Scale, Perceived Stress Scale, General Self-efficacy Scale, and Satisfaction with Life Scale. Statistik deskriptif, bivariat dan multivariat telah digunakan untuk menganalisis data bagi menjawab objektif khusus kajian.

Kajian ini mendapati bahawa 60% daripada responden melaporkan mempunyai fikiran untuk membunuh diri. Dapatan daripada ujian ANOVA menunjukkan bahawa tiada perbezaan etnik dalam kalangan remaja dari segi idea bunuh diri. Tambahan pula, ujian-t sampel bebas menunjukkan tiada perbezaan jantina dalam idea bunuh diri dalam kalangan remaja. Ujian-t sampel bebas juga

menunjukkan terdapat perbezaan yang signifikan dalam kalangan remaja dengan idea bunuh diri dan tanpa idea bunuh diri dari segi harapan, tekanan, efikasi sendiri, kepuasan hidup, hubungan dengan ibu, bapa, rakan sebaya dan guru. Remaja dengan idea bunuh diri mempunyai tahap harapan, efikasi sendiri, dan kepuasan hidup yang lebih rendah. Mereka juga mengalami tahap tekanan yang lebih tinggi, dan hubungan yang lebih negatif dengan ibu, bapa, rakan sebaya, dan guru.

Regresi Logistik Binari menekankan bahawa tekanan, kepuasan hidup, hubungan dengan bapa dan rakan sebaya merupakan peramal unik idea bunuh diri dalam kalangan remaja. Tekanan merupakan peramal yang paling kuat, diikuti dengan kepuasan hidup, hubungan dengan rakan sebaya dan akhirnya hubungan dengan bapa.

Analisis pelbagai pengantaraan selari yang menggunakan SPSS PROCESS makro oleh Preacher dan Hayes (2004) menunjukkan hanya tekanan mengantara secara separa perkaitan antara hubungan dengan ibu, bapa, dan rakan sebaya, dengan idea bunuh diri. Ini menunjukkan bahawa hubungan dengan ibu, bapa, dan rakan sebaya mempengaruhi idea bunuh diri secara langsung, dan tidak langsung melalui tekanan. Hanya tekanan merupakan pengantara dalam kajian ini menunjukkan tekanan adalah faktor yang paling penting dalam idea bunuh diri dalam kalangan remaja kerana tekanan menjelaskan hubungan antara ibu, bapa, dan rakan sebaya dengan idea bunuh diri.

Penelitian bersepadu terhadap faktor individu (harapan, tekanan, efikasi sendiri dan kepuasan hidup), faktor keluarga (hubungan dengan ibu dan bapa), dan faktor luar keluarga (hubungan dengan rakan sebaya dan guru) membekalkan pemahaman tentang faktor-faktor yang mempengaruhi penjaanaan idea bunuh diri dalam kalangan remaja. Dapatan daripada kajian ini memberi implikasi betapa seriusnya idea bunuh diri dalam kalangan remaja dan sumbangan kritikal tekanan terhadap idea bunuh diri. Di samping itu, kedua-dua faktor keluarga dan luar keluarga juga dapat menyumbang kepada idea bunuh diri. Oleh itu, untuk mengurangkan idea bunuh diri dalam kalangan remaja, individu dan profesional yang bekerja dengan remaja mesti memberi tumpuan kepada pengurusan tekanan untuk menyediakan remaja dengan kemahiran yang diperlukan untuk terus hidup dalam masyarakat yang mencabar ini. Selain itu, ibu bapa perlu dilengkapi dengan kemahiran yang sesuai untuk mewujudkan hubungan yang berkualiti dengan anak-anak mereka. Akhir sekali, remaja perlu meningkatkan kemahiran sosial mereka untuk membina hubungan yang lebih baik dengan rakan-rakan mereka.

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I certify that a Thesis Examination Committee has met on 2 December 2016 to conduct the final examination of Wu Shin Ling on her thesis entitled "Individual, Familial and Extrafamilial Factors of Suicidal Ideation among Adolescents in Selangor, Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CDC	Centers for Disease Control and Prevention
CI	Confidence Interval
df	Degree of Freedoms
EDA	Exploratory Data Analysis
EMIS	Malaysia Educational Management Information System
JKEUPM	Ethics Committee for Research involving Human Subjects Universiti Putra Malaysia
MPA	Malaysian Psychiatric Association
MS	Mean square
NRI-RQV	Network of Relationships Inventory – Relationship Quality Version
NSRM	National Suicide Registry Malaysia
OR	Odd Ratio
PANSI-NSI	Positive and Negative Suicidal Ideation Inventory – Negative Scale
PMR	Lower Secondary Assessment
SD	Standard Deviation
SE	Standard Error
SPM	Malaysian Certificate of Education
SPSS	Statistical Package for the Social Sciences
SS	Sum of Square
STPM	Malaysia Higher School Certificate
UPSR	Primary School Achievement Test
VIF	Variance Inflation Factor
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

This chapter introduces the background of the study regarding suicidal ideation among Malaysian adolescents. Followed on by revealing the issues and problems of the study where the statement of problem is presented. The chapter continues by stating the general and specific objectives as well as the hypothesis of the study. The terminology definition of each variable is discussed, followed by the significance of the study. Next is the discussion on the theoretical background which later on generated the conceptual framework of the current study. This chapter ends with the chapter summary.

1.1 Background of the Study

According to the World Health Organization (WHO) in the year 2014, suicidal phenomena have become a worldwide thread where approximately 800,000 people died from suicidal behaviour annually (WHO, 2014a). More severely, the suicide attempters are even greater in number where there are 10 to 20 times more suicide attempters than those who died from suicide. These figures are equivalent to one death every forty seconds and one attempted suicide every three seconds (WHO, 2014a). However, due to the sensitivity of this issue, many cases are under-reported where the cases are classified as accident or other causes of death (Sipalan, 2012). This indicated that suicide phenomena are much more serious in reality.

Narrowing the scope to Asian countries, suicidal phenomena are at an alarming state as they have contributed around 60% of the suicides throughout the world (Chen, Wu, Yousuf, & Yip, 2012). Among the Asian countries, Malaysia had a relatively worrying suicide rate where there are more than 1000 people committed suicide over the past three years from 2010 to 2012 (Sipalan, 2012). In addition, the Malaysian Psychiatric Association (MPA) estimated that the suicide rate in Malaysia is approximately 13.1 per 100,000 people. The suicide rate in Malaysia is considered as moderately high compared to other neighboring country such as Singapore with a rate of 9.9 per 100,000 people and Thailand with a rate of 7.3 per 100,000 people (Malaysian Psychiatric Association, 2007).

In Malaysia, suicide is illegal where based on the Section 309 of the Penal Code, a suicide attempter is subject to one-year jail term or fine or both if convicted (Commissioner of Law Revision, 2006a). Although suicide is illegal in Malaysia, the MPA (2007) reported that the suicide rate in Malaysia has intensified drastically by 60% for the past 45 years. The MPA also reported that seven people attempted suicide everyday in Malaysia compared to Singapore with only one attempted suicide daily.

The National Suicide Registry Malaysia (NSRM) is a national study conducted in Malaysia regarding suicide rate. The NSRM is the only nationwide system that analyses completed data of suicide from all forensic departments under the supervision of the Ministry of Health Malaysia (Nor Hayati et al., 2014). Their study indicated that suicide cases are on the rise where the suicide cases increases from 290 cases in 2008 to 328 cases in 2009. In their latest study, they reported that approximately 425 people committed suicide in Malaysia from January 2010 to August 2010. From their statistics, the NSRM concluded that there is an average of 60 suicide cases per month, which is equivalent to 2 deaths per day. More seriously, the exact number of suicidal in Malaysia could be much higher as there may be underreported cases due to problem in identifying the cause of death (Ng, 2012; NSRM Ministry of Health Malaysia, 2011).

Suicide is the leading cause of death among youth, while youth suicide is the main cause of death worldwide (Bridge, Goldstein, & Brent, 2006; Kapur & Gask, 2009). The World Health Organization (WHO) highlighted the seriousness of suicidal phenomenon among youth where they found that suicide is the third leading causes of death for adolescents aged 10 to 19 years old (WHO, 2014b). Wong (2011) reported that the suicide rate among the youth in Malaysia is catching up with the rate in Japan where Japan has a suicide rate of above 30 per 100,000 people.

Adolescence is a stage of storm and stress where they encounter many conflicts and mood swings. At this stage, adolescents are very vulnerable as they are experiencing transitions in terms of psychological and biological changes. They need to adapt to their developmental changes which may cause them to experience stress and confusion from their families, friends and schools (Santrock, 2008). Eventually, some adolescents may be overwhelmed by these feelings which lead them to the thought of committing suicide in order to escape (CDC, 2015).

Another reason for adolescents being the at-risk group for suicide is due to modernization where technologies speed up everything in order to be more efficient. The speeding up of everything influences the adolescents to be more impulsive and wanted fast solutions to their problems (Chiew, 2011). Hence, they tend to take the short cut whenever they were unable to deal with their emotions and feelings which include attempting suicide.

Prior to committing suicide, adolescents tend to have suicidal ideation. According to O'Carroll et al. (1996), suicidal ideation is the intentions, thoughts, or wishes to end one's own life. Suicidal ideation ranges from having short thoughts to extensive thoughts, serious consideration to commit suicide, and detailed planning. However, it does not include the final act of killing oneself (Gliatto & Rai, 1999). Suicidal ideation is the initial step towards suicide where it may follow with suicidal threat, suicidal attempt, and lastly suicidal death or completed suicide (Coleman & O'Halloran, 2004). The amount of people with

suicidal ideation is countless and the amount is maybe way beyond those who committed suicide (NoorAni, Cheong, Nurashikin, & Azriman, 2014).

Past study showed that adolescents with suicidal ideation or had attempted suicide before have higher probability to commit suicide compared with those who do not have suicidal ideation and suicidal attempt (Groleger, Tomori, & Kocmur, 2003). Study by Nock and colleagues in 2013 found that a third of adolescents with suicidal ideation turned their thoughts into action within a year. Thus, research on suicidal ideation is crucial as suicidal ideation is preliminary to suicidal behavior and preventing suicidal ideation may prevent suicidal behavior from happening (Cui, Cheng, Xu, Chen, & Wang, 2011).

Suicidal is a complex outcome resulted from many factors. There is no single path that will lead to suicidal ideation. Instead, combination of factors throughout life may increase the risk of having suicidal ideation (U.S. Department of Health and Human Services [HHS], Office of the Surgeon General & National Action Alliance for Suicide Prevention, 2012; WHO, 2014a). Suicidal ideation among adolescents is frequently associated to various risk and protective factors comprising of social and self. Protective factors reduced the likelihood of a person to engage in negative outcomes while risk factors increased the probability of a negative outcome to occur (Duncan & Goddard, 2005). Both social and self factors are linked to suicidal ideation. Social factors such as relationship with parents (Gilreath, King, Graham, Flisher, & Lombard, 2009; Liu, 2005), peer (Cui et al., 2011; You, Chen, Yang, Zhou, & Qin, 2014) and teacher (Sun, Hui, & Watkins, 2006), and self factors such as hope (Davidson, Wingate, Slish, & Rasmuss, 2010; Lai-Kwok & Shek, 2010), stress (Lee, Hong, & Espelage, 2010; Zhang, Wang, Xia, Liu, & Jung., 2012), self-efficacy (Chan et al., 2009; Feng, Li, & Chen, 2015), and life satisfaction (Heisel & Flett, 2004; Yao et al., 2014) have been linked to suicidal ideation.

Adolescents experiencing negative relationship with their parents have higher tendency to think of suicidal ideation while close relationship with both parents lowers down the probability of having suicidal thoughts (Liu, 2005). Peer and teacher relationship are also very important in adolescents' development where they served as a supportive figure for adolescents (Demir, Ozdemir, & Weitekamp, 2007; Oncu, Soykan, Ihan, & Sayil, 2008). Adolescents who faced problems with their peers (Cui et al., 2011; Tze-Chun et al., 2009) and teachers (Sun et al., 2006) are more likely to have suicidal thoughts as they lack of social support. Thus, it is vital for adolescents to sustain a positive relationship with their parents, peers, and teacher in order to prevent suicidal ideation among them.

Other than social factors, individual factors such as hope, self-efficacy, and being satisfied with life protect adolescents where adolescents' with high level of hope (Lai-Kwok & Shek, 2010; Steward et al., 2005; Synder, 1994), self-efficacy (Chan et al., 2009; Steward et al., 2005) and satisfaction towards life (Heisel & Flett, 2004) have lower possibility of involving in suicidal phenomena. On the other

hand, stress causes adolescents to involve in suicidality such as suicidal ideation, suicidal attempts, and suicidal behavior (Park & Chung, 2014; Wan & Leung, 2010; Wilburn & Smith, 2005). Stress from daily hassles (Chang, Yang, Lin, Ku, & Lee, 2008) and academic (Ang & Huan, 2006; Lee et al., 2010) triggers the suicidal thoughts among adolescents. Therefore, having high hope, self-efficacy, being satisfied with life, and low level of stress are crucial in adolescents' development as these factors help to prevent adolescents from having suicidal thoughts.

In terms of gender, past studies found that female adolescents have higher probability of developing suicidal ideation and suicidal attempts compared to male adolescents (Evans, Hawton, Rodham, & Deeks, 2005; Santrock, 2008; Wan & Leung, 2010; Winterrowd, Canetto, & Chavez, 2011; Xing et al., 2010). However, a local study found that there is no gender difference in seriously considering attempting suicide among adolescents (Chen, Lee, Wong, & Kaur, 2005). Meanwhile, ethnicity is another important factor that heavily impacts on adolescents' suicidal ideation as Malaysia is a multiracial country which consisted of the Malays, Chinese, Indians, and other ethnic groups. Recent study found that Chinese and Indians adolescents have higher risk of having suicidal thoughts (NoorAni et al., 2014). However, research on ethnicity and suicide has not been studied systematically in Malaysia (Sinniah, Maniam, Tian, & Subramaniam, 2014). Thus, the contradictory findings of past studies on gender issues on suicide and the lack of research on ethnicity called for further investigation on these issues.

In fact, past studies have investigated the influence of social factors and individual factors on suicidal ideation separately but not comprehensively. Moreover, research on the social and individual factors of adolescents' suicidal ideation is at scarce especially among adolescents (Luca, Wyman, & Warren, 2012). Thus, in relation to the issues being addressed above, the current study aimed to explore the individual factors (hope, stress, self-efficacy and stress), familial factors (maternal and paternal relationship), and extrafamilial factors (peer and teacher relationship) of suicidal ideation among adolescents in Selangor, Malaysia.

1.2 Statement of Problem

Suicide greatly impacted family, relatives and peers of the person who committed suicide. They blamed themselves for the unfortunate incident that happened to the victim and could follow the victim's pathway if they are unable to cope with it. Suicide trend is getting more worrying among the youth as has been discussed in Chapter One (page 3 and 4). Suicide has become the third leading cause of death for youth aged between 10 to 24 years old (Centers for Disease Control and Prevention [CDC], 2014). In 2015, a study in Malaysia reported that a total of twenty percent of school-going adolescents sample was involved in suicidal behavior (Choon et al., 2015). These indicated the seriousness of suicide

incidence in Malaysia, and it is crucial to be aware of and take action against this matter.

Factors related to suicidal phenomenon among adolescents have been well documented by various research. However, most studies are conducted in the Western contexts or other Asian countries. There is a relatively dearth of research on suicidal phenomenon especially on suicidal ideation in Malaysia. Malaysia culture differs from the Western culture where children's academic are highly emphasized by parents, society and even the Government in Malaysia. This can be seen through the National Education Policy National Education Policy, Tenth Malaysia Plan 2011-2015 and Eleventh Malaysia Plan 2016-2020 (The Economic Planning Unit, 2010, 2015) where children's academic performance are emphasized rather than their resiliency and coping ability which exposed them to higher level of stress. Consequently, the pressure exerted on Malaysian children exposed them to a higher risk of malfunctioning behaviour including having suicidal ideation. Therefore, there is a need to investigate the factors that contribute to adolescents' suicidal ideation in Malaysia.

Based on the Ecological Risk and Protective Theory (Bogenschneider, 1996), individual, familial and extrafamilial factors play an important role in adolescents' outcomes. Most past studies reported a direct effect of individual, familial and extrafamilial factors on suicidal ideation. Individual factors namely hope, stress, self-efficacy, and life satisfaction affect suicidal ideation directly where high level of hope (Davidson et al., 2010; Dogra, Basu, & Dass, 2011), self-efficacy (Feng et al., 2015; Kobayashi, Fujita, Kaneko, & Motohashi, 2015) and life satisfaction (Valois, Zullig, Huebner, & Drane, 2004; Yao et al., 2014), as well as low level of stress (Chang et al., 2008; Park & Chung, 2014) reduces the probability of adolescents engaging in suicidal ideation. Moreover, familial factors such as maternal and paternal relationship, as well as extrafamilial factors such as peer and teacher relationship also affect suicidal ideation directly where having positive relationships with parents (Taliaferro & Muehlenkamp, 2014; You et al., 2014), peer (Logan, Crosby, & Hamburger, 2011; You et al., 2014), and teacher (Sun et al., 2006; Sun & Hui, 2007) protected adolescents from having suicidal ideation. Unlike past studies, this study not only examined the direct effects of individual, familial and extrafamilial factors on suicidal ideation, but also determined which factors affect suicidal ideation the most through binary logistic regression. Therefore, this study aimed to explore the relationship between individual factors (hope, stress, self-efficacy, and life satisfaction), familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and suicidal ideation among school-going adolescents. This study also determined the likelihood factors that significantly influence suicidal ideation among adolescents. Moreover, past research focused on the psychopathology role in suicidality and conducted their studies among the patient population, thus only few studies have studied on the community sample of adolescents (Perkins & Hartless, 2002; Winterrowd et al., 2011).

In addition, less research has examined the indirect effect of individual, familial and extrafamilial factors on adolescents' suicidal ideation. Based on the online

databases search (SpringerLink, Science Direct, EBSCOhost, Wiley, Google Scholar and Sage) on the related field throughout the year of 2005 to 2015, there were less than ten articles reviewed on the indirect effect of individual, familial and extrafamilial factors on suicidal ideation among Malaysian adolescents. Therefore, this study aimed to examine the mediating effects of individual factors on the relationship between familial and extrafamilial factors, and suicidal ideation among adolescents with suicidal ideation.

The significant role of the individual factors as the mediator of the relationship between familial and extrafamilial factors, and suicidal ideation is explained by the Social Cognitive Theory (Bandura, 1986). Social Cognitive Theory denoted that the environment elements and the outcome of an individual are mediated through the personal elements. In the present study, the individual factors (hope, stress, self-efficacy, and life satisfaction) explain how the familial (maternal and paternal relationship) and extrafamilial (peer and teacher relationship) factors affect adolescents' suicidal ideation. Unlike past studies that examined only one mediator at a time, this study examined four mediators namely hope, stress, self-efficacy and life satisfaction simultaneously through parallel multiple mediator analysis where the strongest mediator is able to be determined. By identifying the strongest mediator, this study is able to provide significant result for planning appropriate interventions that suit Malaysian culture which is more academic-orientated.

Next, due to the salience of sex and ethnicity in suicidal ideation, this study examined whether there are variations in the local context. In terms of sex differences, the link between sex and suicidal ideation is still inconclusive. Some studies demonstrated that there are differences in suicidal ideation between male and female (NoorAni et al., 2014; Rew, Young, Brown, & Rancour, 2016); while others such as Chang et al. (2008) and Chen et al. (2005) found no sex differences in suicidal ideation. This study also examined whether suicidal ideation varied according to ethnic groups. In American, it was found that Black has the highest level of suicidal ideation compared to White and Hispanic groups (Richardson-Vejlgaard, Sher, Oquendo, Lizardi, & Stanley, 2009). In Malaysia, ethnicity is also important as Malaysia is a multicultural country which consists of three main ethnics namely the Malays, Chinese, and Indians. However, there is a dearth of research on ethnicity in suicidal ideation in Malaysia (Sinniah et al., 2014). Thus, both sex and ethnic groups differences in suicidal ideation were examined in the present study.

1.3 Research Questions

Based on the statement of problem, five research questions were derived. The research questions were as below:

1. Is there a relationship between academic performance, individual factors (hope, stress, self-efficacy, and life satisfaction), familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and suicidal ideation among adolescents?

2. Does suicidal ideation vary according to adolescents' sex and ethnic groups?
3. What are the differences between adolescents with and without suicidal ideation in terms of individual factors (hope, stress, self-efficacy, and life satisfaction), familial factors (maternal and paternal relationship), and extrafamilial factors (peer and teacher relationship)?
4. What are the factors that uniquely predict suicidal ideation among adolescents?
5. To what extent does individual factors (hope, stress, self-efficacy, and life satisfaction) mediates the relationships between familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and adolescents' suicidal ideation among the suicidal ideators?

1.4 Research Objectives

Based on the research questions aforementioned, this study aimed to investigate individual (hope, stress, self-efficacy, and life satisfaction), familial (maternal and paternal relationship), and extrafamilial (peer and teacher relationship) factors of suicidal ideation among adolescents in Selangor, Malaysia. The specific objectives were listed as below:

1.4.1 Specific Objectives

1. To describe adolescents' characteristics (age, sex, ethnicity, and academic performance), parental characteristics (years of education and household income), individual factors (hope, stress, self-efficacy, and life satisfaction), familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and suicidal ideation among adolescents.
2. To describe the relationships between academic performance, individual factors (hope, stress, self-efficacy, and life satisfaction), familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and suicidal ideation among adolescents.
3. To compare suicidal ideation between male and female adolescents.
4. To compare adolescents' suicidal ideation across ethnic groups.
5. To compare the differences between adolescents with and without suicidal ideation in terms of individual factors (hope, stress, self-efficacy, and life

satisfaction), familial factors (maternal and paternal relationship), and extrafamilial factors (peer and teacher relationship).

6. To determine the likelihood factors that significantly influences suicidal ideation among adolescents.
7. To examine the mediating effects of individual factors (hope, stress, self-efficacy, and life satisfaction) on the relationships between familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and adolescents' suicidal ideation among the suicidal ideators.

1.5 Research Objectives

Objective 3: To compare suicidal ideation between male and female adolescents.

Ha1: There is a significant difference in suicidal ideation between male and female adolescents.

Objective 4: To compare adolescents' suicidal ideation across ethnic groups.

Ha2: There is a significant difference in suicidal ideation among adolescents across ethnic groups.

Objective 5: To compare the differences between adolescents with and without suicidal ideation in terms of individual factors (hope, stress, self-efficacy, and life satisfaction), familial factors (maternal and paternal relationship), and extrafamilial factors (peer and teacher relationship).

Ha3: There is a significant difference in hope between adolescents with and without suicidal ideation.

Ha4: There is a significant difference in stress between adolescents with and without suicidal ideation.

Ha5: There is a significant difference in self-efficacy between adolescents with and without suicidal ideation.

Ha6: There is a significant difference in life satisfaction between adolescents with and without suicidal ideation.

Ha7: There is a significant difference in maternal relationship between adolescents with and without suicidal ideation.

- Ha8: There is a significant difference in paternal relationship between adolescents with and without suicidal ideation.
- Ha9: There is a significant difference in peer relationship between adolescents with and without suicidal ideation.
- Ha10: There is a significant difference in teacher relationship between adolescents with and without suicidal ideation.

Objective 6: To determine the likelihood factors that significantly influences suicidal ideation among adolescents.

Ha11: There is a likelihood of all the selected variables to significantly influence suicidal ideation among adolescents.

Objective 7: To examine the mediating effects of individual factors (hope, stress, self-efficacy, and life satisfaction) on the relationships between familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship), and adolescents' suicidal ideation among the suicidal ideators.

Ha12: Hope mediates the relationship between maternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha13: Stress mediates the relationship between maternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha14: Self-efficacy mediates the relationship between maternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha15: Life satisfaction mediates the relationship between maternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha16: Hope mediates the relationship between paternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha17: Stress mediates the relationship between paternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha18: Self-efficacy mediates the relationship between paternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha19: Life satisfaction mediates the relationship between paternal relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha20: Hope mediates the relationship between peer relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha21: Stress mediates the relationship between peer relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha22: Self-efficacy mediates the relationship between peer relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha23: Life satisfaction mediates the relationship between peer relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha24: Hope mediates the relationship between teacher relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha25: Stress mediates the relationship between teacher relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha26: Self-efficacy mediates the relationship between teacher relationship and adolescents' suicidal ideation among the suicidal ideators.

Ha27: Life satisfaction mediates the relationship between teacher relationship and adolescents' suicidal ideation among the suicidal ideators.

1.6 Terminology Definition

Suicidal ideation

Conceptual definition: Suicidal ideation refers to the occurrence of any thoughts, wishes or desires to take one's own life (O'Carroll et al., 1996). It can range from having short thoughts to extensive thoughts, serious consideration to commit suicide, and detailed planning, but does not include the final act of killing one's self (Gliatto & Rai, 1999).

Operational definition: In the present study, suicidal ideation refers to the respondents score on the Positive and Negative Suicidal Ideation Inventory – Negative Scale (PANSI-NSI; Osman, Gutierrez, Kopper, Barrios, & Chiro, 1998) where higher score on PANSI-NSI reflects greater suicidal ideation.

Hope

Conceptual definition: Hope refers to the thinking process to achieve goals through a sense of goal-directed determination (agency) and planning towards achieving goals (pathways). Hope measures the respondents' sense of hopefulness (Snyder, Cheavens, & Michael, 1999).

Operational definition: In the present study, hope refers to the respondents score on the Children's Hope Scale (Snyder et al., 1997) where higher score indicates higher level of hope.

Stress

Conceptual definition: Stress refers to the non-specific response of the human body to any stimulus that disrupts the individual's body. Individual perceived stress when their demands exceed their ability to cope causing them to feel uncontrollable and overloaded with their life (Selye, 1976).

Operational definition: In the present study, stress refers to the respondents score on the Perceived Stress Scale (Cohen, Kamarak, & Mermelstein, 1983) where higher score indicates higher level of stress.

Self-efficacy

Conceptual definition: Self-efficacy refers to the belief of ones in their own abilities to cope with a large variety of stressors in order to complete task and achieve goals (Bandura, 1977).

Operational definition: In the present study, self-efficacy refers to the respondents score on the General Self-efficacy Scale (Schwarzer & Jerusalem, 1995) where higher score reflects greater self-efficacy.

Life satisfaction

Conceptual definition: Life satisfaction refers to individual's judgment on their quality of life (Diener, Emmons, Larsen, & Griffin, 1985).

Operational definition: In the present study, life satisfaction refers to the respondents score on the Satisfaction with Life Scale (Diener et al., 1985) where higher score indicates greater life satisfaction.

Maternal relationship

Conceptual definition: Maternal relationship refers to the relationship qualities between mother and child (Buhrmester & Furman, 2009).

Operational definition: In the present study, maternal relationship refers to the respondents score on the Network of Relationships – Relationship Quality Version (Buhrmester & Furman, 2009) based on their mother. The subscale of the negative qualities was used in this study where higher score reflects greater discord in mother relationship.

Paternal relationship

Conceptual definition: Paternal relationship refers to the relationship qualities between father and child (Buhrmester & Furman, 2009).

Operational definition: In the present study, paternal relationship refers to the respondents score on the Network of Relationships – Relationship Quality Version (Buhrmester & Furman, 2009) based on their father. The subscale of the negative qualities was used in this study where higher score reflects greater discord in father relationship.

Peer relationship

Conceptual definition: Peer relationship refers to the relationship qualities among male friend, female friend, romantic friend, and best friend (Buhrmester & Furman, 1985).

Operational definition: In the present study, peer relationship refers to the respondents score on the Network of Relationships – Relationship Quality Version (Buhrmester & Furman, 2009) based on their peer. The subscale of the negative qualities was used in this study where higher score reflects greater discord in peer relationship.

Teacher relationship

Conceptual definition: Teacher relationship refers to the relationship qualities between individual with their teacher (Buhrmester & Furman, 2009).

Operational definition: In the present study, teacher relationship refers to the respondents score on the Network of Relationships – Relationship Quality Version (Buhrmester & Furman, 2009) based on their teacher. The subscale of the negative qualities was used in this study where higher score reflects greater discord in teacher relationship.

1.7 Significance of the Study

The current study focused in identifying factors that contribute the most to suicidal ideation among Malaysian adolescents. There are various factors that may affect adolescents to have suicidal ideation. Thus, it is crucial to identify the significant contributors of adolescents' suicidal ideation which is able to establish appropriate program and intervention in order to minimize the suicidal phenomenon among adolescents.

Moreover, there are limited studies in investigating the relationships between the socialization domains such as parents, peers, and teacher, as well as individual factors such as hope, stress, self-efficacy, and life satisfaction with adolescents' suicidal ideation specifically in the Malaysia contexts. Besides, past research mostly focused on the psychopathology role in suicidality and conducted their studies on the patient population, thus only few studies have studied on the general community consisted of adolescents (Perkins & Hartless, 2002; Winterrowd et al., 2011). Thus, this research is significant in the research field as it filled in the literature gap in explaining the individual, familial and extrafamilial factors of suicidal ideation among school-going adolescents in Malaysia.

The findings of this study can be made public by publishing and distributing to various parties in the nation. Based on this study, the understanding of adolescents' suicidal ideation can be enhanced as well as the contributors of suicidal ideation among adolescents can be identified. Consequently, practitioners, policy makers, researchers and the ministry can refer to this study regarding the various factors that affected adolescents' suicidal ideation when planning intervention and prevention program for adolescents. Moreover, appropriate empowerment program for adolescents can be organized in order to minimize the possible risk factors of suicidal ideation.

Lastly, the findings of the present study can be served as a reference for other future study in order to expand the ideas in this field. Future research can identify other different aspects of adolescents' suicidal ideation by expanding the current study. Studies involving different participants such as drop-out secondary

student, youth, and adult can be taken into consideration for future studies. The results can contribute more regarding this field in Malaysia which will benefit the nation.

1.8 Theoretical Background

The current study was primarily guided by the Social Cognitive Theory (Bandura, 1986) which explains the importance of social roles and cognitive ability on our behavior. Additionally, the Ecological Risk and Protective Theory (Bogenschneider, 1996) was adopted to explore the relationships between individual, familial and extrafamilial factors, and suicidal ideation among adolescents in Selangor, Malaysia. The theories were discussed in relation to suicidal ideation among adolescents.

1.8.1 Social Cognitive Theory (Bandura, 1986)

Social Cognitive Theory (Bandura, 1986) is a learning theory where people learnt by observing and imitating other people. The person's cognitive abilities also play an important role in learning. People do not solely learnt through observation of other people actions. Their cognitive abilities processes the actions based on the replication of these actions and whether these actions were rewarded or punished while observing. In short, Albert Bandura (1986) theorized the Social Cognitive Theory that individual learns from their social environment while processing what they had learnt with their cognitive abilities.

Based on Figure 1.1, there are three important elements in the Social Cognitive Theory that are intercorrelated which are the environment, the personal/cognitive and the behavioural/outcome.

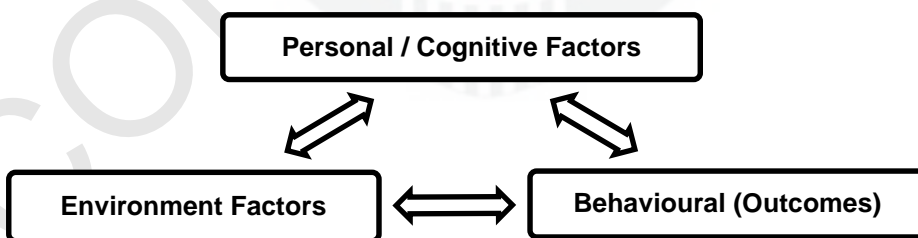


Figure 1.1. The Social Cognitive Theory Model (Bandura, 1986).

The environment element includes physical environment and social influences such as family, peers, teachers, community, neighbourhood and other social influences. The personal/cognitive element refers to the person's cognitive

abilities, beliefs, physical characteristics and attitudes. The behavioural/outcome element refers to various responses including the motor responses, verbal responses, and social interactions (Bandura, 1989).

According to Bandura (1989), the behavioural/outcome element refers to the outcomes of various responses. The responses can be either positive or negative as they are influenced by the environment and personal/cognitive elements. In the current study, adolescents' suicidal ideation corresponds as the outcome of the Social Cognitive Theory. Suicidal ideation is defined as having short thoughts to extensive thoughts, serious consideration to commit suicide, and also detailed planning. However, it does not include the final act of killing oneself (Gliatto & Rai, 1999).

Based on the Social Cognitive Theory, the environment element refers to the environments around us namely the social and physical environments. In our everyday life, both the social and physical environments around us affect how we behave. At the same time, our behaviours also alter the environments around us. For instance, parents do not scold their children unless they did something wrong or teachers were unable to educate their students unless they come to class. The relationships between the environment and our behaviours were reciprocal. Thus, the surrounding environments especially the social environments shaped our behaviour, thoughts, and beliefs, and vice versa.

In the Social Cognitive Theory (Bandura, 1989), the personal/cognitive element include personal thoughts, expectations, beliefs, attitudes and goals which determined the individual behaviours and actions. This indicated that what people think, feel and believe will affect the way they behave. In other word, the outcomes of our actions or behaviours are determined by our own thought patterns and cognitive competencies. In order to influence the personal/cognitive element, the environment plays a crucial role in providing information and guidelines for an individual to perform or not to perform a behaviour.

The current study aimed to investigate the relationships between social environments and adolescents' suicidal ideation with personal/cognitive factors as the mediator. The social environment such as parents, peer and teacher are important social figures as they largely impacted adolescents' outcomes. Adolescents with discord relationships with their parents, peer or teacher increased the likelihood of having suicidal thoughts among adolescents (Bostik & Everall, 2006; Sun et al., 2006; Tze-Chun et al., 2009). Moreover, adolescents' personal/cognitive factors such as hope, stress, life satisfaction and self-efficacy highly impacted on their thoughts. Adolescents with low self-efficacy tend to doubt their ability and see their task as threat (Bandura, 1977). Past study also revealed that adolescents with low level of self-efficacy (King, Strunk, & Sorter, 2011) and hope (Lai-Kwok & Shek, 2010), high level of stress (Lee et al., 2010), and being not satisfied with life (Heisel & Flett, 2004) tend to think of suicide. Therefore, the social environments elements namely relationship with parents, peer and teacher, as well as the personal/cognitive elements namely hope, self-

efficacy, stress, and life satisfaction are derived from the Social Cognitive Theory (Bandura, 1986) to further explore the suicidal ideation among adolescents.

Moreover, according to the Social Cognitive Theory, the environmental elements are believed to influence the outcome behaviour through personal/cognitive elements. Therefore, in the current study, the environment elements namely relationship with parents, peer and teacher are believed to influence the adolescents' outcome (suicidal ideation) through the personal/cognitive elements (hope, self-efficacy, stress and life satisfaction). Thus, this study utilized the Social Cognitive Theory to examine the mediating role of personal/cognitive elements (hope, self-efficacy, stress, and life satisfaction) on the relationships between social environment elements (parents, peer, and teacher relationship) and adolescents' suicidal ideation.

1.8.2 Ecological Risk and Protective Theory (Bogenschneider, 1996)

The Ecological Risk and Protective Theory (Bogenschneider, 1996) is grounded from the bioecological theory of human development (Bronfenbrenner, 1979, 1986) and developmental contextualism (Lerner, 1991, 1995). This theory addressed adolescents' maladjustments that required comprehensive examination at different settings in order to implement suitable prevention and development programs for youth (Bogenschneider, 1996). Unlike other model, this model includes both risk and protective factors that are responsible for adolescents' outcomes (Bogenschneider, 1996). Risk factors increase the probability of a negative consequence to occur while protective factors buffer the occurrence of a negative outcome (Duncan & Goddard, 2005).

Figure 1.2 illustrated the Ecological Risk and Protective Theoretical Model by Bogenschneider (1996). It displays the risk and protective factors within the individual, family, peer, school, work and community settings. From the figure below, the risk factors lead towards dangerous behaviors, but in the presence of protective factors, it is redirected back towards healthy development.

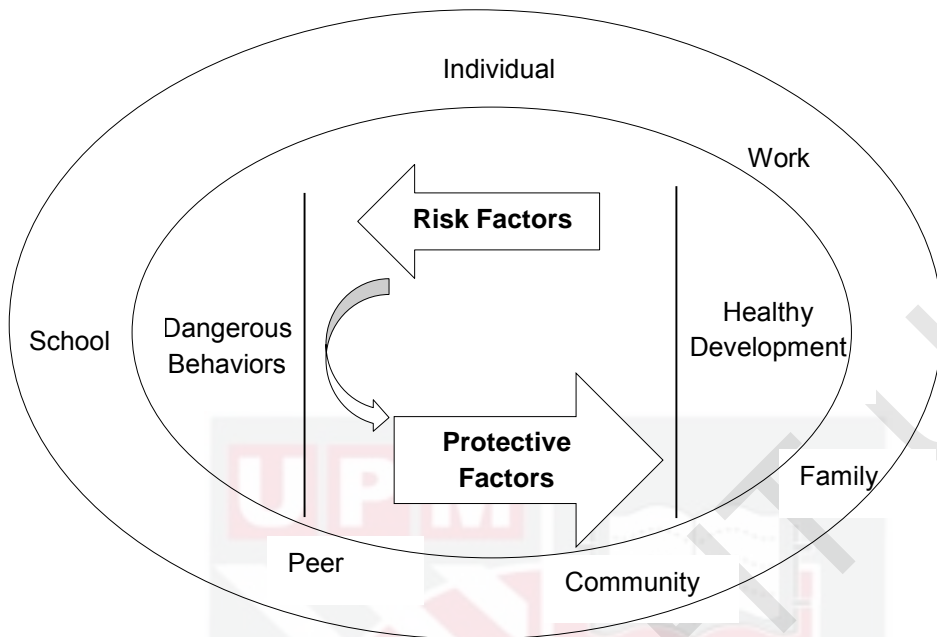


Figure 1.2. The Ecological Risk and Protective Model (Bogenschneider, 1996).

In the Ecological Risk and Protective Theory (Bogenschneider, 1996), the outcomes are in bi-directional which are healthy development and dangerous behaviors. The current study aimed to investigate suicidal ideation among adolescents. Suicidal ideation is considered as a dangerous outcome as adolescents with suicidal ideation may end their life. Risk factors will negatively affect adolescents' thoughts by instilling suicidal ideation in them. In contrast, protective factors will positively affect adolescents' thoughts by protecting them from having suicidal ideation.

The Ecological Risk and Protective Theoretical Model (Bogenschneider, 1996) postulated that a single risk or protective factor is not enough to determine its effect on the adolescents' outcome. Past study revealed that exposure to risk factors at numerous levels of the ecology system increases the probability of adolescents in engaging in suicidal ideation and behaviour (Perkins & Hartless, 2002). Therefore, the risk and protective factors were identified within the ecological systems including individual, family, peer, school and community setting.

Although multiple levels of the ecological system is important, the microsystem of the adolescents plays the most important role in impacting the adolescents. This is because the microsystem is the closest and immediate environment of the adolescents which has the greatest impact on the adolescents

(Bronfenbrenner & Ceci, 1994). These groups of people in the microsystem directly interfere with the adolescents' development and outcomes. Bronfenbrenner (1979) emphasized that if the microsystems break down, the child will not be able to explore other parts of his environment. Therefore, in the current study, the individual factors and the microsystem are emphasized where relationships between the individual factors, social factors (relationships with parents, peer, and teacher) and suicidal ideation among adolescents are investigated.

In the current study, the individual and social factors which consist of risk and protective factors for adolescents' suicidal ideation are explored. The risk factors are the characteristics that cause an individual to be more likely to have suicidal thoughts or to engage into suicidal behavior. Meanwhile the protective factors act as a buffer that helps to lower the risk of suicidal and prevent the individual from engaging in suicidal activities (O'Carroll et al., 1996). Negative relationships with parents, peer, and teacher are the risk factors of suicidality as adolescents who experienced these negative relationships tend to engage in suicidal phenomena. In contrast, adolescents with positive relationships with their parents (Samm et al., 2010), peer (Logan et al., 2011), and teacher (Luca et al., 2012) are protected from suicidal phenomena. Moreover, stress is another risk factor that contributed to adolescents' suicidal ideation. Stress especially from academic increases the risk of suicidal ideations among young people (Li, Li, & Cao, 2012; Shang, Li, Li, Wang, & Siegrist, 2014).

On the other hand, hope, self-efficacy and life satisfaction are the protective factors for suicidal ideation among adolescents. Hopeful adolescents believed that there are many ways in achieving their goals, thus protected them from having suicidal thoughts when they faced any problem (Synder, 1994). Besides, adolescents who are satisfied with their life (Heisel & Flett, 2004) and have higher level of self-efficacy (Chan et al., 2009) are less likely to have suicidal thoughts. In conclusion, based on the Ecological Risk and Protective Theory (Bogenschneider, 1996), both the individual and social factors which consist of risk and protective factors of suicidal ideation among adolescents are explored in the current study.

1.8.3 Integration of Theories

There is no single theory that is able to explain the individual, familial and extrafamilial factors of suicidal ideation among adolescents. Therefore, two theories are integrated in order to comprehensively explore the individual, familial and extrafamilial factors of suicidal ideation among adolescents in Selangor, Malaysia. The current study was guided by the Social Cognitive Theory (Bandura, 1986) and the Ecological Risk and Protective Theory (Bogenschneider, 1996). The theoretical framework of the present study is illustrated in Figure 1.3.

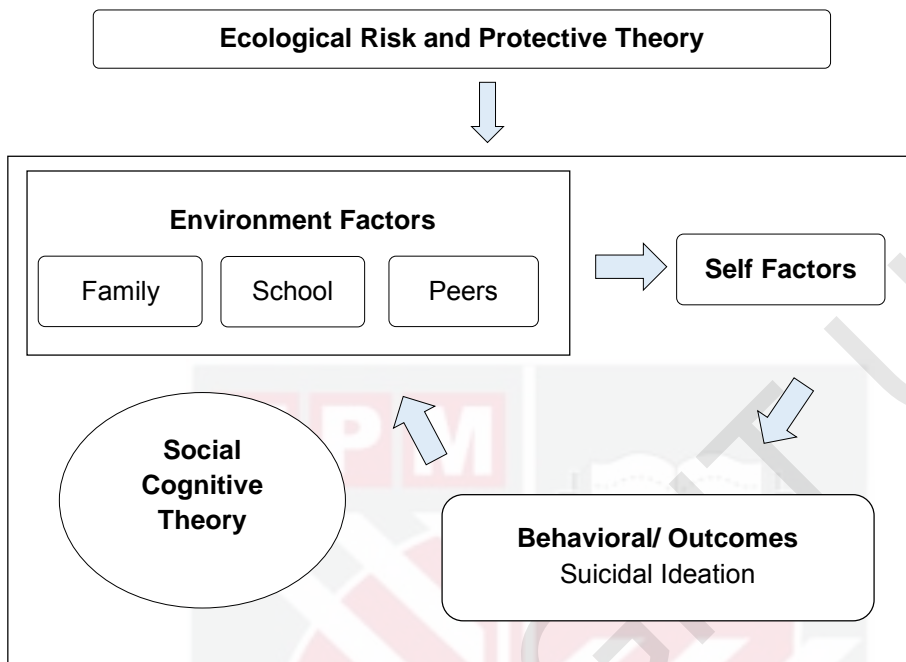


Figure 1.3. Theoretical framework for the study.

The theoretical framework of the current study was derived from the Social Cognitive Theory (Bandura, 1986) and the Ecological Risk and Protective Theory (Bogenschneider, 1996). Based on the Social Cognitive Theory (Bandura, 1986), the social environment and cognitive process are vital to adolescents' development. The social environments influence adolescents' development as they learnt from their social environments. Adolescents' relationships with their social figures mainly parents, peer and teacher are important in their life as they served as a role model to them. In addition, self factors play a vital part in adolescents' outcomes. Adolescents with low self-efficacy and hope, not satisfied with life and high level of stress tend to experience negative consequences including having suicidal ideation. Thus, the current study aimed to investigate the relationships between social environments elements (relationship with parents, peer, and teacher), personal/cognitive elements (hope, self-efficacy, stress, and life satisfaction), and suicidal ideation among adolescents.

Moreover, according to the Social Cognitive Theory, our behaviour/outcome is believed to be influence by the environmental factors through personal/cognitive element. Therefore, in the current study, the social environments namely relationship with parents, peer and teacher are believed to influence the adolescents' outcome (suicidal ideation) through the personal/cognitive element.

Thus, the present study intended to investigate the relationships between social environments (relationship with parents, peer, and teacher) and adolescents' suicidal ideation with personal/cognitive elements (hope, self-efficacy, stress, and life satisfaction) as the mediator.

On the other hand, according to the Ecological Risk and Protective Theory (Bogenschneider, 1996), the ecosystem plays a significant role in the adolescents' development where risk and protective factors influence the adolescents' outcomes. Thus, in the present study, adolescents' suicide ideation was explored from the ecological system which includes the individual, family, and extrafamilial contexts (schools and peer groups).

1.9 Conceptual Framework

The conceptual framework of the current study is constructed from the Social Cognitive Theory (Bandura, 1986) and the Ecological Risk and Protective Theory (Bogenschneider, 1996). Referring to Figure 1.4, this study consists of five main variables which are adolescents' characteristics, familial factors, extrafamilial factors, individual factors and suicidal ideation. The dependent variable is suicidal ideation which is the main focus of the study. The independent variables consist of familial factors (maternal and paternal relationship) and extrafamilial factors (peer and teacher relationship). The individual factors (hope, stress, self-efficacy, and life satisfaction) are the mediating variables of the current study. In addition, the antecedent variables of the study are adolescents' characteristics (sex, ethnicity and academic performance). The conceptual framework of the current study is presented in Figure 1.4.

The conceptual framework in the current study is based on integration between the Social Cognitive Theory (Bandura, 1986) and Ecological Risk and Protective Theory (Bogenschneider, 1996). The Social Cognitive Theory emphasizes the interaction between environmental elements, personal/cognitive elements and behavioural/outcome. As shown in the conceptual framework in Figure 1.4, the behavioural/outcome is the suicidal ideation among adolescents. The social environment elements are represented by the relationships with mother, father, peer and teacher. These social figures exert an important role in adolescents' development (Santrock, 2008). Moreover, personal/cognitive elements are represented by hope, stress, self-efficacy and life satisfaction. These variables are important personal and cognitive factors that affect adolescents' suicidal ideation.

Moreover, based on the Ecological Risk and Protective Theory, the variables are investigated through the ecological systems namely individual, familial and extrafamilial factors. These variables represent the risk and protective factors of suicidal ideation. The risk factors are stress, negative relationships with mother, father, peer and teacher. On the other hand, the protective factors are hope, self-efficacy and life satisfaction.

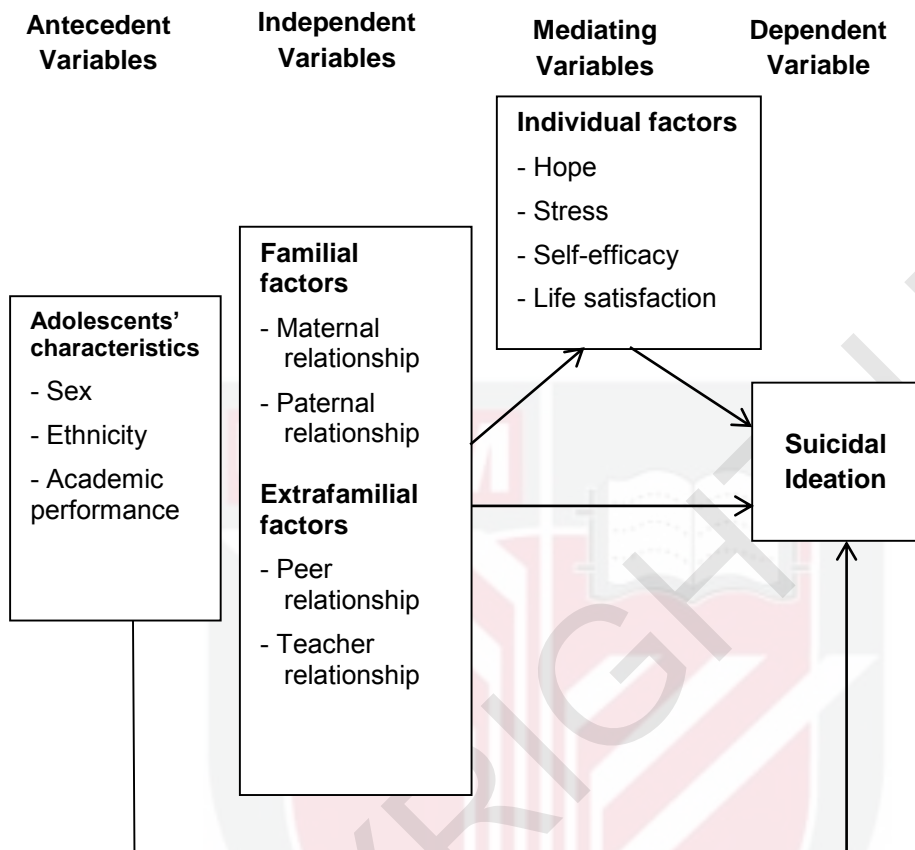


Figure 1.4. Conceptual framework for the study.

Past studies denoted that the risk of suicidality increased when there are stress (Ang & Huan, 2006; Park & Chung, 2014), negative relationships with mother and father (Kim & Kim, 2008; Séguin, Lynch, Labelle, & Gagnon, 2004), negative relationship with peer (Cui et al., 2011), and negative relationship with teacher (Luca et al., 2012). On the other hand, researchers found that the risk of suicidality decreased when people have hope (Chang, Yu, Kahle, Jeglic, & Hirsch, 2013), self-efficacy (Chan et al., 2009), and are satisfied with their life (Heisel & Flett, 2004). However, most of these individual, familial and extrafamilial factors are examined individually in previous studies unlike in this study where they are investigated comprehensively. Thus, this conceptual framework expanded the literature gap by integrating various key factors together.

According to Bandura (1989), the personal/cognitive elements appear to be the third variable (mediator) that contributed to the behavioural/outcome. Based on the conceptual framework, this study aimed to investigate the relationships

between familial and extrafamilial factors (independent variables), and individual factors (mediating variable) on adolescents' suicidal ideation (dependent variable). Moreover, the mediating effects of individual factors (hope, stress, self-efficacy, and life satisfaction) on the relationships between familial factors (maternal and paternal relationship), extrafamilial factors (peer and teacher relationship) and outcome variable of adolescents' suicidal ideation are examined.

1.10 Chapter Summary

This chapter started by introducing the background of the study and statement of problem. It is followed with the general and specific objectives, hypothesis, definition of the terms, and significance of study. Lastly, the theoretical and conceptual frameworks are illustrated. The next chapter is the review of literature to support the current study.

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