



UNIVERSITI PUTRA MALAYSIA

***DEPRESSION, HOPE, RISK-TAKING PARTICIPATION AND SUICIDAL
BEHAVIOR AMONG MALAYSIAN ADOLESCENTS***

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**DEPRESSIVE SYMPTOMS, HOPE, RISK TAKING PARTICIPATION, AND
SUICIDAL BEHAVIOR AMONG MALAYSIAN ADOLESCENTS**

By

CHOON MIN WAI

**Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
Fulfillment of the Requirements for the Degree of Master of Science**

January 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 Master of Science

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January 2016

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The present study examined the relationship between depressive symptoms, hope, risk taking participation and suicidal behavior. There were a total of 1314 adolescents aged between 13 to 17 years ($M=15.27$, $SD=1.02$) participated in the study. All the respondents were recruited by utilizing multistage cluster sampling. Two theories were integrated to highlight the argument of the present study on suicidal behavior (Bandura, 1999; Joiner, 2005). Based on Bandura's social cognitive theory, hope was conceptualized from self-efficacy as a protective factor in explaining suicidal behavior. Meanwhile, the interpersonal-psychological theory of suicide (Joiner, 2005) emphasized on both constructs (desire to die and ability to die) which have been conceptualized into depressive symptoms and risk taking participation in explaining suicidal behavior among adolescents. Suicidal Behavior Questionnaire-Revised (Osman et al., 1999) was used to assess suicidal behavior. Meanwhile, Adolescent Exploratory and Risk Behavior Rating Scale developed by Skaar (2009) assesses adolescents' risk taking participations. Depressive symptoms were assessed by adapting Centre for Epidemiologic Studies Depression Scale (Radloff, 1977) while Children's Hope Scale (Snyder et al., 1997) was used to measure hope. The acquired data was analyzed using descriptive statistics, Pearson correlation, and regression analyses respectively. Results indicated a 20.7% of adolescents ($n=272$) engaged in suicidal behavior. The result also indicated that all studied variables were significantly correlated except for exploratory risk and depressive symptoms. Interestingly, health risk behaviors were found to partially mediate the relationship between depressive symptoms and suicidal behavior. In contrast, exploratory risk behaviors however was found to partially mediated the relationship between hope and suicidal behavior. The results obtained from the present study substantiated the previously mentioned theories of Bandura (1999) and Joiner (2005) by emphasizing the partial mediation of risk taking participations in the relationship between depressive symptoms, hope, and suicidal behavior. Future studies could further explore these findings in an in-depth manner to achieve clearer understanding on the intervention of suicidal behavior through risk taking participations.

Abstrak yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Sarjana Sains

GEJALA KEMURUNGAN, HARAPAN, PENYERTAAN PENGAMBILAN RISIKO, DAN TINGKAH LAKU MEMBUNUH DIRI DALAM KALANGAN REMAJA MALAYSIA

Oleh

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Kajian ini meneliti hubungan antara gejala kemurungan, harapan, penyertaan risiko, dan tingkah laku membunuh diri. Seramai 1314 remaja berusia antara 13 hingga 17 tahun ($P=15.27$, $SP=1.02$) telah mengambil bahagian dalam kajian ini. Semua responden direkrut dengan menggunakan persampelan kelompok pelbagai peringkat. Dua teori telah digunakan untuk menekankan hujah kajian ini ke atas tingkah laku membunuh diri (Bandura, 1999; Joiner, 2005). Berdasarkan teori kognitif sosial Bandura, harapan dikonsepsikan sebagai faktor pelindung bagi menerangkan tingkah laku membunuh diri. Sementara itu, interpersonal-teori psikologi (Joiner, 2005) memberikan penekanan kepada kedua-dua konstruk (keinginan untuk mati dan keupayaan untuk mati) yang telah dikonsepsikan kepada gejala kemurungan dan pengambilan risiko. *Suicidal Behavior Questionnaire-Revised* (Osman et al., 1999) telah digunakan untuk menilai tingkah laku membunuh diri. Sementara itu, *Adolescent Exploratory and Risk Behavior Rating Scale* (Skaar, 2009) menilai penyertaan risiko remaja. Gejala kemurungan dinilai dengan adaptasi daripada *Centre for Epidemiologic Studies Depression Scale* (Radloff, 1977) manakala *Children's Hope Scale* (Snyder et al., 1997) digunakan untuk mengukur harapan. Data yang diperolehi dianalisis dengan menggunakan statistik deskriptif, korelasi Pearson dan regresi analisis. Keputusan menunjukkan 20.7% ($n=272$) daripada responden terlibat dalam tingkah laku membunuh diri. Hasil kajian juga menunjukkan bahawa semua pemboleh ubah yang dikaji mempunyai hubungan yang signifikan kecuali risiko penerokaan dan gejala kemurungan. Menariknya, tingkah laku berisiko kesihatan didapati sebahagiannya menjadi pengantara antara gejala kemurungan dan tingkah laku membunuh diri. Sebaliknya, tingkah laku berisiko penerokaan didapati sebahagiannya pengantara antara harapan dan tingkah laku membunuh diri. Keputusan yang diperolehi disokong oleh teori-teori yang dinyatakan oleh Bandura (1999) dan Joiner (2005) yang memberikan penekanan kepada pengantara sebahagian daripada penyertaan pengambilan risiko dalam hubungan antara gejala kemurungan, harapan, dan tingkah laku membunuh diri. Kajian pada masa hadapan boleh meneroka dengan cara yang lebih mendalam untuk mencapai pemahaman yang lebih jelas mengenai intervensi tingkah laku membunuh diri melalui penyertaan pengambilan risiko.

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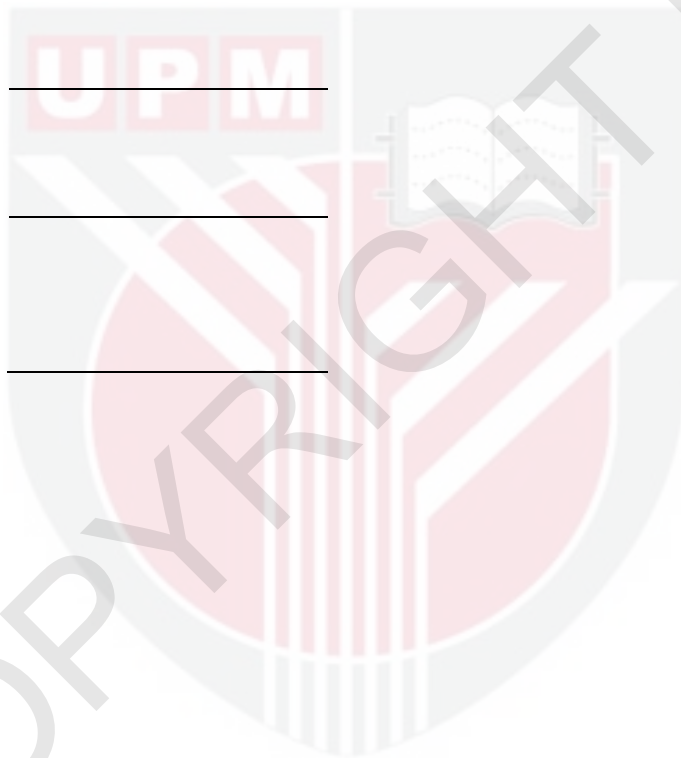
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TABLE OF CONTENTS

ABSTRACT	i
ABSTRAK	ii
ACKNOWLEDGEMENT	iii
APPROVAL SHEET	iv
DECLARATION	v
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xii

CHAPTER

1	INTRODUCTION	
1.1	Background of Study	1
1.2	Statement of Problem	3
	1.2.1 Research Questions	4
	1.2.2 General Objective	4
	1.2.3 Specific Objectives	5
	1.2.4 Research Hypotheses	5
1.3	Terminology Definition	
	1.3.1 Suicidal Behavior	6
	1.3.2 Risk Taking Participation	7
	1.3.3 Depressive Symptoms	7
	1.3.4 Hope	8
1.4	Significance of the Study	8
1.5	Theoretical Framework	
	1.5.1 Social Cognitive Theory	9
	1.5.2 Interpersonal-psychological Theory of Suicide	10
1.6	Conceptual Framework	11
1.7	Limitation of Study	12
1.8	Summary	12
2	LITERATURE REVIEW	
2.1	Suicidal Behavior	13
2.2	Depression and Suicidal Behavior	15
2.3	Risk Taking in Adolescence	
	2.3.1 Health Risks and Suicidal Behavior	17
	2.3.2 Exploratory Risks and Suicidal Behavior	19
2.4	Hope and Suicidal Behavior	20
2.5	Depression and Health Risk Behaviors	21
2.6	Depression and Exploratory Risk Behaviors	23
2.7	Depression and Hope	24
2.8	Hope and Health Risk Behaviors	25
2.9	Hope and Exploratory Risk Behaviors	26
2.10	Risk Taking as a Mediator	26
2.11	Research Gap	27
2.12	Summary	28

3	METHODOLOGY	
3.1	Research Design	29
3.2	Study Location	29
3.3	Study Population and Sample	29
3.4	Sampling Technique	30
3.5	Data Collection Procedure	31
3.6	Instrumentation and Measurement	
	3.6.1 Suicidal Behaviors Questionnaire-Revised	33
	3.6.2 Adolescent Exploratory and Risk Behavior Rating Scale	33
	3.6.3 Centre for Epidemiologic Studies Depression Scale	34
	3.6.4 Children's Hope Scale	35
3.7	Pilot Study	35
3.8	Reliability of Instrument	35
3.9	Data Analysis	
	3.9.1 Exploratory Data Analysis	36
	3.9.2 Descriptive Statistics	38
	3.9.3 Inferential Statistics	38
	3.10 Summary	39
4	RESULTS AND DISCUSSION	
4.1	Descriptive findings	
	4.1.1 Demographic Characteristics	40
	4.1.2 Level of Variables	41
4.2	Bivariate Analysis	47
4.3	Multivariate Analysis	52
4.4	Mediation Analysis	53
4.5	Summary	58
5	SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATION	
5.1	Introduction	59
5.2	Summary of Findings	59
5.3	Conclusion of the Study	61
5.4	Implications of the Study	
	5.4.1 Theoretical Implications	61
	5.4.2 Practical Implications	63
5.5	Recommendations	63
	REFERENCES	64
	APPENDICES	74
	BIODATA OF STUDENT	84
	LIST OF PUBLICATIONS	85

LIST OF TABLES

Table	Page
3.1 Description on Suicide Behaviors Questionnaire-Revised	31
3.2 Description on Adolescent Exploratory and Risk Behavior Rating Scale	32
3.3 Description on Centre for Epidemiologic Studies Depression Scale	33
3.4 Description on Children's Hope Scale	33
3.5 Reliability coefficients of instruments for pilot and actual study	34
3.6 Assessment of Normality for All Study Variables	36
3.7 Multicollinearity Test Results for All Independent Variables	36
4.1 Demographic characteristics	38
4.2 Levels of Variables	39
4.3 Description of Suicidal Behavior Items and Score	40
4.4 Description of Depressive Symptoms Items and Score	41
4.5 Description of Hope Items and Score	43
4.6 Description of Risk Taking Participation Items and Scores	44
4.7 Correlation between variables	49
4.8 Results of Linear Regression Analyses on Adolescents' Suicidal Behavior	50
4.9 Testing for health risk behavior as the mediator between depression and suicidal behavior	52
4.10 Testing for exploratory risk behavior as the mediator between hope and suicidal behavior	54

LIST OF FIGURES

Figure		Page
1.1	Theoretical Framework	10
1.2	Conceptual Framework	12
3.1	Sampling procedure	30
4.1	Path Diagram for Mediation Model	51
4.2	Path Diagram for Mediation Model	53
4.3	Path Diagram for Mediation Model	54

LIST OF ABBREVIATIONS

SBQR	Suicidal Behavior Questionnaire – Revised
AERRS	Adolescent Exploratory and Risk Rating Scale
NIMH	National Institute of Mental Health
CES-D	Centre for Epidemiologic Studies Depression Scale
CHS	Children’s Hope Scale
ERGS	Exploratory Research Grant Scheme
SA	Suicidal Attempts
HSA	Hospitalized Suicide Attempters
EDA	Exploratory Data Analysis

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Humans undergo a series of developmental stages in life from childhood to adulthood. Throughout the life course, humans experienced various life events which generally involve life and death. Eventually, death is inevitable for any living organism including the human species. However, some death are natural, some are exceptional. One of the many exceptional cases of death among the human species is suicide.

According to World Health Organization (2007), the epidemic of suicide reaches approximately one (1) million people each year across the globe. Furthermore, analysts have proven over half a century, the prevalence of suicide is seen to have shifted from Western Europe to Eastern Europe and now it is shifting towards Asia (Chen, Wu, Yousuf, & Yip, 2012). Particularly, Asia has accounted for 60% of the world suicide which ranked Asia as the region with most suicide in the world with countries like Japan, South Korea and Taiwan rated as having the highest suicide rate respectively (Chen et al., 2012). In Malaysia, however, the ratio of suicide was recorded lower at 1.3 per 100 000 people (Hayati, Abdullah, & Shah, 2008) as compared to the global rate of 11.6 per 100 000 people (Varnik, 2012). However, it was believed that the suicide rate in Malaysia to be higher due to the nature of reported suicide cases and under-reported cases (Maniam & Chan, 2013).

There are various definitions of suicide in the existing literature. Suicide originated from the Latin word, *sui caedere*; to kill oneself (Fung, Kee, & Ang, 2009). One of the simplest definitions of suicide is defined as an intentional or voluntary act of taking one's own life (Nock et al., 2008). Besides that, Robert (2008) defined suicidal behavior into three types of self-destructive acts; completed suicide, attempted suicide and suicide gestures. Generally, suicide is an impulsive act of harming oneself physically with the determination to end one's life.

Specifically, adolescent suicides are gaining prominence in the suicide literatures (Eckersley & Dear, 2002; Loh, Tai, Ng, Chia & Chia, 2012; Sayar, Kose, Acar, Ak, & Reeves, 2004). Nonetheless, adolescents are undergoing a developmental stage in which they are known to engage themselves in behaviors that lead to various consequences. Adolescents were known to engage in various risks involving physical fights, forced sexual intercourse and consuming illegal drugs that portrayed a lack of behavioral restriction that lead to suicide attempts (Bae, Ye, Chen, Rivers, & Singh, 2005; Perkins & Hartless, 2002). As such, engagement in such dangerous behaviors

could lead to many social ills and hence disrupt a healthy development among adolescents.

In the social neuroscience perspective, Steinberg (2008) elucidated an increase of risk taking participation between childhood and adolescence (puberty stage) is due to their brains' social-emotional system which leads to an increase in reward-seeking sensation. As such, adolescents who engaged themselves in such dangerous and unhealthy behaviors could be an indicator or causal factor in engaging in suicidal attempts (Bae et al., 2005; Pages, Arvers, Hassler, & Choquet, 2004). However, not all risk taking behaviors resulted in unwanted or negative outcomes, engagement in risk taking behavior too served as an experiment to test adolescents' behavioral limits and a way to regulate their surging emotions (Dworkin, 2005; Leather, 2009).

While risk is defined with relation to ideas of danger, loss, threat, damage and injury; risk can be occasionally seen as a positive reference to accepting a challenge or opportunity in order to gain, achieve progress and to experience the new (Morgan, 2004). Accordingly, risk taking in the realm of an adolescent nonetheless serves to provide a sense of identity and value through the engagement of life threatening activities. As noted by Skaar (2009), participation in risky behavior indicates maturity among adolescents in achieving optimum growth and development from childhood to adulthood. Specifically, engagement in structured activities such as sports or performing arts corresponds with improved behavioral outcomes and subjective well being thus, reducing the risks of adolescents to engage in self destructive behavior such as suicide (Dodge & Lambert, 2009; Gilman et al., 2004; Ramey et al., 2010).

Apart from risk taking behaviors, numerous studies have been conducted in evidence of psychological distress in predicting suicidal behavior. As postulated by Stoep (2011), depression elevated the risks of suicide ideation, recurrent suicide ideation and suicide attempts in his longitudinal study among young adolescents. Evidence also supported that depression is associated with suicidal behavior in older adolescents (Bridge, Goldstein, & Brent, 2006). Meanwhile, depression is used to determine and differentiate suicide ideators and non-ideators or between attempters and non-attempters (Harris & Lennings, 1993).

Upon focusing the risk factors such as depression and risk taking behaviors, protective factor is imperative to be discussed in minimizing such destructive behavior. According to Snyder et al. (2000), hope is known to be a perception of attainable goals in which goals are reachable in both pathway and agentic thoughts. In order to reach specific goals, Snyder believes one has to have a plan (pathway) with sensible amount of goal-directed energy (agency). In order to approach particular goal pursuits, Snyder believes that high hope individuals could generate alternate routes despite having a primary route in mind as compared to low hope individuals. Specifically, Tucker et al. (2013) have ascertained that individuals with goals are able to develop (pathway) and

motivated (agency) to achieve those goals while less likely to ruminate their problems which in turn decreases the experience of depression and suicidal ideation when negative life events occur. Similarly, hopeful individuals were less likely to experience suicidal behavior with increasing levels of depression (Hirsch, Visser, Chang, & Jeglic, 2012).

Based on the reviews mentioned above, adolescent suicide has been regarded as one of the social ills that occur in a given society. Adolescent suicide has been a worrying trend which leads to the elaborated problem statement.

1.2 Statement of Problem

The overall global rate of suicide were recorded at a rate of 11.6 per 100 000 across the world (Varnik, 2012). Although the suicide rate in Malaysia was recorded at 1.3 per 100 000 (Hayati et al., 2008), lower than the global rate, however, the exact suicide rate might be higher due to many under-reported cases specifically the nature of death recorded (Maniam & Chan, 2013). Moreover, the prevalence of the suicide rate in our country is possibly in an increasing trend with evidences and literatures from international studies have shown that in developed countries, suicide rates were often recorded in high as compared to non-developed countries (Khan, 2005). Our country is in the progression of becoming a developed nation by the year 2020 in which suicide rates among the youth and young might increase exponentially due to the increased quality of life. As stated by Lester (2003), youth or adolescents might be unable to cope with the improved quality of life hence inwardly blaming themselves rather than blaming externally to factors such as the government, education system and et cetera. Hence, an increase in adolescent suicide rate might be forecasted while portraying a crisis among our younger generation.

Specifically, a local study on Malaysian adolescents showed that among the 4,500 school students across the nation, there were approximately 200 students who were reported to have attempted suicide at least once (Chen et al., 2005). Although a small percentage was recorded, the numbers of adolescents who engage in suicide attempt are increasing exponentially (Hayati et al. 2008; Ramachandran, 2010). With an exponential increase in such cases, our adolescent population might be reduced leading to a reduction in future human capitals. Reduction in human capital might in turn affect a country's productivity in every possible aspect (Bronzini & Piselli, 2008).

Furthermore, there were no doubts that numerous factors were found to be associated with suicidal behavior among adolescents. Some of the recorded factors were of depression or depressive symptoms (Weber, Metha & Nelsen, 1997; Heisel, Flett & Hewitt, 2003; Kaviani et al., 2011) and risks taking (Bae et al., 2005; Chen et al., 2005; Pages et al., 2004). Nevertheless, a handful of protective factors towards suicidal behavior were identified throughout history. Hope was among the few which

postulated in past studies to have an inhibition effect not only towards suicidal behavior but also on depressive symptoms and risks taking (Cutcliffe & Barker, 2002; Davidson & Wingate, 2013; Schmid et al., 2011).

Interestingly, as argued in Maniam and Chan (2013) on the issue of accumulation of repetitive yet precipitating research on factors influencing suicidal behavior in Malaysia, a detailed understanding of possible factors is crucial to understand adolescent suicidal behavior in the Malaysian context as such adverse behavior is complex yet intricate. As to the knowledge of the author, the role of risk taking participation (health risk and exploratory risk) as a mediator in predicting adverse behaviors lacks supporting literature from the suicidal arena.

Hence, the problem statements discussed earlier prompted a few research questions in the present study to understand the nature of adolescent suicide in Malaysia. The research questions are as below followed by the research objectives:

1.2.1 Research Questions

Based on the statement of problems, a few research questions have been generated as below:

1. What are the levels of depressive symptoms, hope, risk taking participation (health risk and exploratory risk), and suicidal behavior among the adolescents?
2. Are there any relationships between depressive symptoms, hope, risk taking participation (health risk and exploratory risk) and suicidal behavior?
3. What is the unique predictor (depressive symptoms, hope, health risk, or exploratory risk) of suicidal behavior among adolescents?
4. To what extent is the relationship between depressive symptoms and suicidal behavior is mediated by risk taking participation (health risk & exploratory risk)?
5. To what extent is the relationship between hope and suicidal behavior is mediated by risk taking participation (health risk & exploratory risk)?

1.2.2 General Objective

The general objective of the study was to determine the relationship between depressive symptoms, hope, risk taking participation and suicidal behavior.

1.2.3 Specific Objectives

Based on the general objective, the specific objectives of the study are outlined as follows:

1. To describe the levels of depressive symptoms, hope, risk taking participation (health risk and exploratory risk), and suicidal behavior among the adolescents.
2. To determine the relationships between depressive symptoms, hope, risk taking participation (health risk and exploratory risk) and suicidal behavior.
3. To determine the unique predictor (depressive symptoms, hope, health risk, or exploratory risk) of suicidal behavior among adolescents.
4. To explore the role of risk taking behavior (health risk and exploratory risk) in the relationship between depressive symptoms and suicidal behavior.
5. To explore the role of risk taking behavior (health risk and exploratory risk) in the relationship between hope and suicidal behavior.

1.2.4 Research Hypotheses

In line with the specific objectives and reviewed literatures, various sets of alternative and null hypotheses were formulated. Null hypothesis is the initial claim a researcher specify with a need to disprove while alternative hypothesis is the hypothesis the researcher would try to prove.

Objective 1: To describe the levels of depressive symptoms, hope, risk taking participation, and suicidal behavior among the adolescents.

Objective 2: To determine the relationships between depressive symptoms, hope, risk taking participation (health risk and exploratory risk) and suicidal behavior.

- Ha1: There is a significant relationship between depressive symptoms and suicidal behavior among adolescents.
- Ha2: There is a significant relationship between hope and suicidal behavior among adolescents.
- Ha3: There is a significant relationship between risk taking participation (health risk) and suicidal behavior among adolescents.
- Ha4: There is a significant relationship between risk taking participation (exploratory risk) and suicidal behavior among adolescents.
- Ha5: There is a significant relationship between depressive symptoms and hope among adolescents.
- Ha6: There is a significant relationship between depressive symptoms and risk taking participation (health risk) among adolescents.
- Ha7: There is a significant relationship between depressive symptoms and risk taking participation (exploratory risk) among adolescents.

- Ha8: There is a significant relationship between hope and risk taking participation (health risk) among adolescents.
- Ha9: There is a significant relationship between hope and risk taking participation (exploratory risk) among adolescents.

Objective 3: To determine the unique predictor (depressive symptoms, hope, health risk, or exploratory risk) of suicidal behavior among adolescents.

- Ha10: The regression coefficients for all the chosen independent variables (depressive symptoms, hope, health risk, and exploratory risk) are significant when regressed against adolescents' suicidal behavior.

Objective 4: To explore the role of risk taking participation (health risk and exploratory risk) in the relationship between depressive symptoms and suicidal behavior.

- Ho1: Health risk behaviors do not significantly mediate the relationship between depressive symptoms and suicidal behavior among adolescents.
- Ho2: Exploratory risk behaviors do not significantly mediate the relationship between depressive symptoms and suicidal behavior among adolescents.

Objective 5: To explore the role of risk taking behavior (health risk and exploratory risk) in the relationship between hope and suicidal behavior.

- Ho3: Health risk behaviors do not significantly mediate the relationship between hope and suicidal behavior among adolescents.
- Ho4: Exploratory risk behaviors do not significantly mediate the relationship between hope and suicidal behavior among adolescents.

1.3 Terminology Definition

1.3.1 Suicidal Behavior

Conceptual definition

Suicidal behavior is classified in a continuum of fatal/nonfatal self-injurious act which is inflicted onto oneself that encompasses a series of suicide ideation, plan, attempt, and completion (Nock et al., 2008).

Operational Definition

In this study, Suicidal Behavior Questionnaire – Revised (SBQ-R) was utilized to identify one's suicidal behavior which includes lifetime ideation or attempt, frequency

of the ideation and the threat of suicide attempt (Osman, et al., 2001). Higher score of the SBQ-R posits a heightened risk for individuals to commit suicide.

1.3.2 Risk Taking Participation

Conceptual Definition

Risk taking is conceptually defined as an engagement in a range of activities which evokes certain level of fear that involves defeat or loss or in which opportunities and accomplishments are offered (Denneson, 2009).

Operational Definition

Risk taking participation was evaluated using the Adolescent Exploratory and Risk Rating Scale (AERRS) which consists of both measures of health risk items and exploratory risk items (Skaar, 2009). Health risk items are related to behaviors that produce negative development in health and educational outcomes whereas exploratory risk items are likely to produce positive development in health and educational aspects. Hence, higher scores for both risk taking participations indicated higher propensity of adolescents engaging in each risk taking behavior.

1.3.3 Depressive Symptoms

Conceptual Definition

Depressive symptoms refer to one's characteristics of dejected mood, diminished interests in social activities, feeling of worthlessness and guilt, deterioration of attention, and recurrent ideation of death and suicide (National Institute of Mental Health [NIMH], 2011).

Operational Definition

Depressive symptoms were measured using Centre for Epidemiologic Studies Depression Scale (CES-D). The CES-D measures self-reported symptoms associated with depression experienced in the past week (Radloff, 1977). Higher scores indicate more depressive symptoms among adolescents.

1.3.4 Hope

Conceptual Definition

Hope is defined as a perception in attaining achievable goals through both agentic and pathway thoughts. Hopeful individuals believe that they are motivated (agentic thought) to achieve a certain goal through a set of possible planned routes (pathway) (Snyder et al., 2000).

Operational Definition

Children's Hope Scale (CHS) (Snyder et al., 1997) was utilized to measure both agency and pathway thoughts toward goals among adolescents. Higher scores represent a more hopeful thought by being motivated while generating possible routes and alternatives to reach the desired goal.

1.4 Significance of Study

Given that this study was part of the Exploratory Research Grant Scheme (ERGS) project, the Ministry of Higher Education has emphasized the importance of conducting such study as to determine the incidence and prevalence of suicide phenomena in Malaysia. Specifically, the adolescent population was the focal point of the research as adolescents are believed to be future leaders in developing the country.

Apart from that, factors related and leading to suicidal behavior has been discussed extensively in numerous literatures across the globe. A handful of literatures have successfully discussed the effects of depression and hope toward suicidal behavior (Bradvik & Berglund, 2010; Bridge et al. 2006; Chan, Maniam, & Shamsul, 2011; Kuo, Gallo, and Eaton, 2004). Nevertheless, impulsiveness and risk taking behavior were also found to lead higher risk of suicide attempts (Bae et al., 2005; Le Breton, 2004). In order to fill the gap between the mentioned studies, this particular study have successfully postulated the relationship between depression, hope, and risk taking participation with suicidal behavior among school adolescents. Specifically, the present study discerns the potentiality of risk taking participation as the mediator in the relationship between depressive symptoms, hope, and suicidal behavior.

Besides that, the information gathered in this research will serve as an added knowledge in the suicidal literature specifically in the Malaysian context. Although there are a number of local studies that have been conducted in regards to suicidal behavior, most of the reviewed literatures focused on the external factors such as socio-cultural and demographic factors that contribute to such destructive behavior (Chen et al., 2005; Hayati et al., 2008; Kok & Goh, 2011; Maniam et al., 2013). Hence, there is a significant need to investigate other potential factors as discussed in the present study

in order to understand the idea of suicidal behavior among adolescents in a broader aspect.

Moreover, since suicidal literatures are minimal in Malaysia as compared to other countries especially in the West, this study serves as an added knowledge to the public, academicians, counselors, or even policy makers in Malaysia. This study also served to provide accurate facts and figures to various parties including governmental and non-governmental organizations in which new policies could be generated such as family programs or youth developmental programs in order to curb such intrusive behavior among adolescents.

In addition, the most prominent aspect of conducting present study is to further elucidate both Bandura's (1999) social cognitive theory and Joiner's (2005) interpersonal-psychological theory of suicidal behavior. Since the study utilized a quantitative research design, the results of the study might elucidate and compensate social cognitive theory and interpersonal-psychological theory of suicidal behavior. The mentioned theories are further explained in the following section.

1.5 Theoretical Framework

The theoretical framework was developed as a result from the adoption of Social Cognitive Theory (Bandura, 1999) and Interpersonal-Psychological Theory of Suicide (Joiner, 2005). The aforementioned theories were discussed in relation to suicidal behavior.

1.5.1 Social Cognitive Theory

Bandura (1999) famously attested the argument of an individual's development is based on the interaction between the reciprocal determinants (environment, cognition, and behavior) which were driven by self efficacy. As postulated by Bandura (1999), self efficacy is the driving force that produces changes in an individual's development. Such changes may involve either constructive development or towards a destructive end. Interestingly, as corroborated by Valois, Keith, and Hunter (2013), adolescents with lower emotional self efficacy have a higher tendency to engage in suicidal behaviors including suicidal ideation, suicidal plan, and suicidal attempt.

Furthermore, it is notably important to address the similarities between self efficacy and hope in terms of cognitive set of motivational competence and the control beliefs (Bandura, 1999; Robinson & Snipes, 2009). Hope is defined as the perception of achievable goals through agentic (motivational aspect) and pathway (ways or means) thoughts (Snyder, 2000). A study done by Hirsch et al. (2012) found that hopeful individuals were less likely to experience suicidal behavior with increasing levels of depression. Thus, hope has an important role in predicting behavioral outcomes

including suicidal behavior (Davidson, Wingate, Rasmussen, & Shish, 2009; Hirsch et al., 2012).

1.5.2 Interpersonal-psychological theory of suicide

Based on the interpersonal-psychological theory of suicide, Joiner (2005) corroborated that suicidal behavior stems from the expression of one's desire to die and the ability to die. The theory discerned that one's desire to die stems from the concept of thwarted belongingness (alienation from social group) and perceived burdensomeness (perception of a burden to others). Such concepts are psychological in nature that is equitable to the symptoms of depression which is assumed to be cognitive-affectively laden rather than a stable trait (Van Orden et al., 2010). Empirically, depression was found to be associated with the constructs of thwarted belongingness and perceived burdensomeness in predicting suicidal ideation and attempt (Kleiman, Liu, & Riskind, 2014; Stellrecht et al., 2006).

Besides that, the ability to die emphasized on one's perseverance. Individuals who repeatedly experienced painful and provocative events eventually develop a sense of fearlessness towards pain, injury and death which later resulted in habituation. Habituated experiences enabled individuals to develop high tolerance of pain and injuries which subsequently preserved them to experience suicide in fearless ways (Joiner, 2005). Based on the argument of David Elkind in Le Breton (2004), the development of personal fable among adolescents provided them a sense of invincibility and invulnerability. As a result, adolescents were frequently found to take risks (experimental behaviors) as a contemporary rite of passage (Le Breton, 2004). In accordance to the concept of habituation postulated by Joiner (2005), taking risks periodically reinforces adolescents to engage in future risk taking behaviors which subsequently leads to suicidal behavior.

In general, there is no single theoretical approach that can explain the association between all the studied variables with suicidal behavior in the study. Thus, the present study integrates two theoretical constructs to comprehensively explore suicidal behavior. The integration of both theories in understanding suicidal behavior is presented in Figure 1.1. The factor taken from Bandura's Social Cognitive Theory is self efficacy which contributed to the realm of suicidal behavior (Valois et al., 2013). However, Bandura's theory failed to explicitly explain the behavioral and psychological factors that constitute to suicidal behavior. Thus, the IPTS was adopted to complement Bandura's idea on suicidal behavior. The IPTS rigorously explain the behavioral and psychological factors that contributed to suicidal behavior which is aligned with the studied variables in the present study.

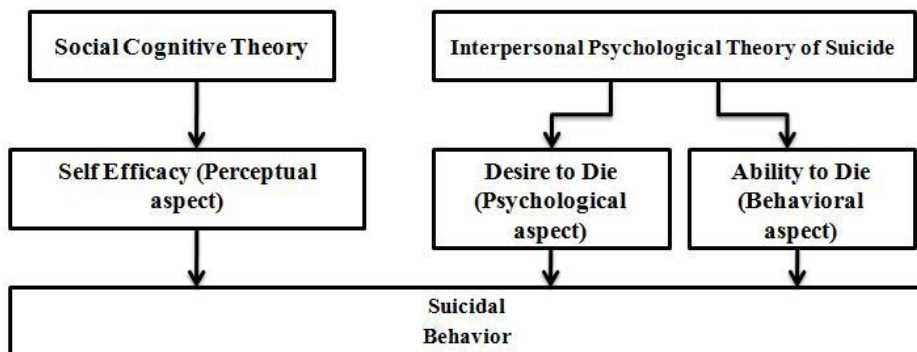


Figure 1.1 Theoretical Framework

1.6 Conceptual Framework

Figure 1.2 depicts the conceptual framework of the present study, which was derived from the theoretical framework (Figure 1.1). This conceptual framework shows the direction of relationships between the perceptual aspect (hope), psychological aspect (depressive symptoms), and the behavioral aspect (risk taking participation) with suicidal behavior.

The conceptual framework showed that all the independent variables (depressive symptoms, hope, and risk taking behavior) are correlated with each other while independently associated with the dependent variable (suicidal behavior). Evidently, depressive symptoms and risk taking behavior were positively correlated with suicidal behavior (Bae et al., 2005; Chen et al., 2005; Jacobson, Marrocco, Kleinman, & Gould, 2011; Pages et al., 2004). As for hope, Davidson et al. (2009) postulated that it serves as a protective factor against suicidal behavior. Meanwhile, the present study noted the role of risk taking participation (health risk and exploratory risk) as a potential mediator in the relationships between depressive symptoms, hope and suicidal behavior. As argued by Thatcher, Reininger, and Drane (2002), future research are to focus on identifying variables related to mental health that interacts with risk and protective factors of suicidal behavior.

As such, referring to the theoretical framework mentioned earlier, the researcher successfully developed a conceptual framework in explaining the research in detail. This conceptual framework showed the direction of relationships between independent variables that include depressive symptoms, hope, and risk taking participation with the

dependent variable, suicidal behavior, based on the conceptualization of the mentioned theories.



Figure 1.2: Conceptual Framework

1.7 Limitation of the Study

There were a few limitations in the present study worth discussing. Firstly, this study is limited to only school-going adolescents whom the researcher fails to address adolescents who are dropped out from schools and currently working. Besides that, only a specific number of factors were examined concurrently as it is beyond the scope of the study to include every other possible factor associated with suicidal behavior. In addition, the study is cross sectional in nature, thus possesses a challenge in forming causality among studied variables. Lastly, the study focused risk taking participation (health risk & exploratory risk) as the only mediator as there are other possible mediators that could be studied. Hence, considerations on the mentioned limitations should be taken into account in future studies.

1.8 Summary

In summary, suicide incidents are increasing in number across the globe specifically adolescent suicide. The focus of the present study is to gain more understanding of the nature of adolescent suicide behavior, depressive symptoms, hope and risk taking behaviors. Discussion on adolescent suicide is limited in Malaysia, hence further discussions are important as to prepare intervention and prevention platform for such social ill. For the best interest of the discussion, this particular research is part of the Exploratory Research Grant Scheme (ERGS). The following chapter proceeds to the literature reviews of the present research.

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