Faculty of Cognitive Sciences and Human Development

Relationship Between Cognitive Distortion and Suicidal Ideation: The Roles of Cognitive Factors as Mediators

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Relationship Between Cognitive Distortion and Suicidal Ideation: The Roles of Cognitive Factors as Mediators

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DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

……

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ABSTRACT

This study focused on investigating the relationship among suicidal ideation, cognitive distortion, hopelessness, social problem-solving, psychache and rumination. This research also assessed the mediating effects of hopelessness, social problem-solving, psychache and rumination on the relationship between cognitive distortion and suicidal ideation. A total of 414 undergraduates who have received career counseling service in an institute of higher learning had been selected by convenience sampling. The Spearman's Rank Correlation, Bootstrapping regression, and mediation analysis were conducted to analyse the collected data. The finding showed that suicidal ideation is significantly and positively related to cognitive distortion, hopelessness, psychache and rumination, but negatively and significantly associated with social problem-solving. The hopelessness, social problem-solving, psychache and rumination were the significant mediators on the relationship between cognitive distortion and suicidal ideation. Limitations and suggestions for future studies were also discussed.

Keywords: Suicidal ideation, cognitive distortion, hopelessness, social problem-solving, psychache

Hubungan Antara Hetoran Kognitif dan Idea Bunuh Diri: Peranan Faktor Kognitif Sebagai Pengantaraan

ABSTRAK

Kajian ini bertujuan untuk mengkaji hubungan antara idea bunuh diri, herotan kognitif, putus asa, penyelesaian masalah sosial, kesakitan psikologi, dan renungan. Di samping itu kajian ini juga mengkaji kesan pengantaraan putus asa, penyelesaian masalah sosial, kesakitan psikologi dan ruminasi terhadap hubungan antara idea bunuh diri dan distorsi kognitif. Seramai 414 pelajar yang pernah mendapat perkhidmatan kaunseling kerjaya di institusi pengajian tinggi telah dipilih dengan kaedah persampelan konvenien untuk menyertai kajian ini. Analisis korelasi, regressi dan pengantaraan terhadap data telah dikendalikan. Hasil kajian menunjukkan bahawa idea bunuh diri mempunyai hubungan yang signifikan dan positif dengan herotan kognitif, putus asa, kesakitan psikologi dan renungan, tetapi hubungan yang signifikan dan negatif dengan penyelesaian masalah sosial. Putus asa, penyelesaian masalah sosial, kesakitan psikologi dan renungan menunjukkan kesan pengantaraan yang signifikan dalam hubungan antara hetoran kognitif dan idea bunuh diri. Limitasi dan cadangan untuk kajian masa depan juga telah dibincangkan.

Kata kunci: *Idea bunuh diri, hetoran kognitif, putus asa, penyelesaian masalah sosial, kesakitan psikologi*

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LIST OF ABBREVIATIONS

ANT	All or Nothing Thinking
APA	American Psychological Association
AS	Avoidance Style
BD	Blooding
BHS	Beck Hopelessness Scale
BSS	Beck Scale for Suicidal Ideation
CA	Catastrophizing
CBT	Cognitive Behavioural Theory
CD	Cognitive Distortion
CDS	Cognitive Distortions Scale
EFA	Exploratory Factor Analysis
ER	Emotion Reasoning
H	Hopelessness
ICS	Impulsivity or Carelessness Style
LA	Labelling
MDP	Minimizing or Disqualifying the Positive
MF	Mental Filter
MI	Mindreading
NPO	Negative Problem Orientation
OV	Overgeneralization
PE	Personalization
PPO	Positive Problem Orientation

PSY	Psychache
PSYC	The Psychache Scale
REF	Reflection
RPS	Rational Problem-Solving
RRS	Rumination Response Scale
RUM	Rumination
SI	Suicidal Ideation
SPS	Social Problem-Solving
SPSI-R-S	Social Problem-Solving Inventory-Revised Short Form
ST	Should Statements
UKM	Universiti Kebangsaan Malaysia
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter introduces the preliminaries of the research study, including the background of study, problem statements, research questions, objectives, hypotheses, definition of terms, scope of study and significance of study.

1.2 Background of Study

Suicide is a global phenomenon that happens throughout the lifespan of individuals cause them experiencing disability and deaths (World Health Organization [WHO], 2018a). Generally, individuals tend to stigmatize that suicide would only be happened in high-income countries (WHO, 2018a). However, suicide mostly occurs in low and middle-income countries, which accounted for 78% of suicide cases (WHO, 2018a). In 2015, suicide had contributed to 1.4% of all deaths. Consequently, suicide had been categorized as the 17th leading cause of death and the second leading cause of death among the population aged from 15 until 29 years old. Additionally, suicide causes almost 800,000 individuals to die per year. To be precise, an individual would commit suicide every 40 seconds (WHO, 2018c).

Unlike the global crude suicide rate, the crude suicide rate of Malaysia was varying, but generally increasing up to 3.77% from 2000 until 2015 (WHO, 2018a). Specifically, that the crude suicide rates for Malaysian men had been increased from 5.3 in 2000 to 5.4 in 2015, while the crude suicide rates for Malaysian women are relatively stable, which was 3.1 from 2000 to 2015 (WHO, 2018a). Besides that, the suicide rate among

Malaysians is 6 to 8:100,000, which means that nearly 2000 individuals are predicted to commit suicide yearly (Pillay, 2017). Additionally, suicide is known as the second leading cause of death among Malaysian youth and the rate of suicide among Malaysian youths is expected to rise continuously (Malaysian Digest, 2015; Pillay, 2017).

Historically, researchers had used different terms to define suicide based on their theoretical perspectives. Some of them described suicide as a general term consisting of the presence of any suicidal action or thought (Klonsky et al., 2016). However, they are not initiated or failed to conceptualize a precise differentiation between suicidal ideation with suicidal plans, nonfatal attempts and fatal attempts. Consequently, due to ambiguous terms that had been used to explain suicide, the development in the suicide-related theory and research had been hindered. Additionally, individuals tend to presume that self-harm is similar to suicide although there is a distinct difference between these two terms. Generally, self-harm is known as intentional self-injury, such as self-mutilation, which brings adverse impacts on body tissues without the presence of suicidal intentions (Ougrin et al., 2015). Unlike self-harm, suicide is defined by the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) as an intentional action that causes death (American Psychiatric Association [APA], 2013).

Suicide can take place in many forms, including bleeding, drowning, firearms, jumping from a height, electrocution, hanging, poison, dehydration and others. Generally, the method of suicide differs across countries and gender and is relatively dependent on the availability of effective means (Yip et al., 2012). According to Ajdacic-Gross et al. (2008) and WHO (2018b), pesticide self-poisoning, firearms and hanging are the most commonly used suicide methods, whereas jumping from and poisoning by drugs play the role as the alternative methods occasionally. Among the top three commonly used methods, hanging

was mainly dominant in the majority of countries. Besides that, firearm suicide was the most commonly used suicide method in the United States but was also predominant in Argentina, Switzerland and Uruguay. On the other hand, poisoning with pesticides was prevalent, especially among women in Asian countries, rural Latin American countries and Portugal (Ajdacic-Gross et al., 2008). Additionally, men are more likely to commit suicide by using more violent and lethal methods, including firearm suicide and hanging, while women tend to choose less violent and lethal methods, such as poisoning or drowning (Ajdacic-Gross et al., 2008).

There are two main motives that cause an individual to commit suicide (Kovacs et al. as cited in Matthews, 2013). Firstly, individuals who commit suicide are normally intended to escape from a painful life event, such as poverty, social isolation and undesirable medical condition. This motivation may also be caused by the presence of pessimistic perceptions on oneself, others and the world. Eventually, this intention will lead to more serious suicide attempts. Desire to make some interpersonal change or change in their environment is the second motivation for suicide and this motivation is triggered by love and affection, revenge, or control (Matthews, 2013). Besides that, suicide can be triggered by negative internal and external experiences of cognitive themes (Rudd et al., 2001). Emotions, physical sensations, self-perception and thoughts are examples of internal triggers, whereas surrounding individuals, venues and situations are categorized as external triggers (Rudd et al., 2001).

Suicide attempts and suicidal ideation are known as the dominant risk factors that lead to the occurrence of completed suicide (Bostwick et al., 2016; Choi et al., 2017). Suicide attempt is an intended action to terminate an individual's life, which may lead to death, whereas suicidal ideation is uncommon thinking preoccupied with suicide, which

can be ranged from fleeting thoughts, extensive thoughts, detailed planning and incomplete attempts (APA, 2013; Haile et al., 2018). Undeniably, there is a significant association among suicide, suicide attempt and suicidal ideation. A three-step theory (3ST) of suicide was constructed to conceptualize the association among these variables. This theory greatly highlights three key components, including connectedness, pain and hopelessness and suicidal capacity (Klonsky et al., 2016). This theory divides the process into three steps. The first step is the development of suicidal ideation in which an individual experiences inevitable psychological or emotional pain and hopelessness. The second step is the determination of strong versus moderate ideation. During this stage, an individual will have strong suicidal ideation when the degree of pain and hopelessness is surpassing the connectedness-connection to surrounding individuals, interest, or purpose of living (Klonsky et al., 2016).

Then, the progression from ideation to attempts will be the final step of this theory in which individuals with strong suicidal ideation and suicide capacity will commit a suicide attempt (Klonsky et al., 2016). According to Joiner (2005), suicide capacity is an ability that will be formed and exaggerated after experiencing a painful experience, which will eventually increase an individuals' tolerance for pain, injury and death. This component will be influenced by three types of variables, namely dispositional, acquired and practical (Klonsky et al., 2016). The dispositional variable is an innate variable, such as the ability to endure with pain, whereas the acquired variable refers to habituation to painful, fearful, or traumatic experience (Smith et al., 2012). Additionally, the practical variable refers to knowledge about or access to lethal means (Young et al., 2012). Among these three variables, the practical variable plays the most vital role in increasing the probability of attempting suicide (Young et al., 2012).

Based on the three-step theory, suicidal ideation is the primary contributor that initiates the progression from suicidal thoughts to completed suicide. Therefore, suicidal ideation should be greatly highlighted and reduced to prevent the occurrence of suicide attempts or even completed suicide. According to the statistical data constructed by Befriender Kuala Lumpur, the number of individuals with suicidal ideation has been increased by 16%, which is from 21,256 in 2015 to 24,821 in 2016 (Pillay, 2017). Specifically, there are approximately 20 individuals out of 68 individuals, who visited in Befrienders Kuala Lumpur show suicidal ideation (Pillay, 2017). Individuals with suicidal ideation show numerous physical and psychological symptoms. Excessive fatigue, change in appetite and sleep pattern and unintentional weight loss are the physical symptoms of suicidal ideation. On the other hand, the sense of hopelessness and helplessness, sense of loneliness, impaired concentration, deduction in self-esteem, racing thoughts, frequent occurrence of mania and severe mood disturbances (e.g. severe depression and anxiety) are the psychological symptoms experienced by individuals (APA, 2013; Chamberlain et al., 2009). Additionally, individuals who are unable to handle the adverse impacts of onset of these symptoms, they are more susceptible to the development of psychological inflexibility, which would eventually result in psychological distress (Chamberlain et al., 2009; Valenstein et al., 2012).

Several risk factors contribute to the development of suicidal ideation. For instance, individuals with certain mental disorders, namely mood-related disorders, personality disorders, schizophrenia and post-traumatic stress disorder will be more likely to have strong suicidal ideation (Hoertel et al., 2015). Besides that, substance abuse is one of the risk factors of suicidal ideation (Poorolajal et al., 2016). For example, Nischal et al. (2012) found that intake of inappropriate dosages of selective serotonin reuptake inhibitors (e.g.

antidepressants) over a long period will increase the probability of possessing strong suicidal ideation, eventually it would contribute to increased risk of suicidality in adults. Coupland et al. (2015) also stated that individuals are more likely to commit suicide when receiving treatments with medication, such as antidepressants and selective serotonin reuptake inhibitors.

Additionally, experiencing negative life events, such as the death of family members, chronic illness, bullying and other negative events, will increase the suicidal ideation of an individual (Bakhiyi et al., 2017; Rowe et al., 2013). Other risk factors, including genetic, psychosocial and behavioral factors would also cause suicidal ideation (Dutta et al., 2017; Sharma et al., 2015).

Some studies have been conducted to identify the relationship between suicidal ideation and other cognitive factors, and one of the cognitive factors was cognitive distortions. According to Matthews (2013), cognitive distortion (i.e. consists of the cognitive triad, attentional bias and fixation, overgeneralized memory, cognitive rigidity and dichotomous thinking), hopelessness, problem-solving and psychache are the main cognitive factors that lead to an increase in suicidal ideation. Firstly, cognitive distortion is known as exaggerated or dysfunctional thought patterns that can result in adverse impacts on individuals' psychopathological states (Jager-Hyman et al., 2014). Besides that, cognitive distortions are unconsciously regulated by an information processing system that quickly interprets environmental events, uses mental shortcuts to facilitate human survival through the threats' avoidance. Progressively, this maladaptive automatic cognitive mechanism will lead to mental illness (Roberts, 2015).

Matthews (2013) stated that cognitive distortions will influence individuals' ability to process information adaptively, eventually decrease individuals' ability to solve

problems and increase the sense of hopelessness. Problem-solving is defined as a state of desire for accomplishing an aim from a current condition that either is not directly moving toward the goal, is far from it, or requires more complex reasons for clarifying an ambiguous explanation of conditions or steps toward the aim (Rubin et al., 2012). On the other hand, hopelessness is known as the main contributing factor that leads to the development of suicidal ideation. It is the adverse impacts of possessing an inability to identify alternative solutions to problems and the presence of beliefs related to unrealistic expectations and self-doubts (Matthews, 2013). Recent studies have shown that hopelessness is significantly related to suicidal ideation compared to depression and it has been proved of its mediating effect on the relationship between depression and suicidal ideation (Lamis et al., 2016; Matthews, 2013). Finally, psychache is the psychological pain that is intolerable, inescapable and interminable (Kumar, 2015). According to Shneidman (1993), psychache has a direct effect on the occurrence of suicide when it exceeds the threshold of tolerance of an individual who perceives that death is the only way to terminate the painful feeling.

Thus, this model suggested that cognitive distortion, hopelessness, social problem solving and psychache are the significant factors affecting suicidal ideation. However, the further studies to quantify these relationships are limited and the acquired results are inconsistent.

1.3 Problem Statements

According to WHO (2018c), all age groups are vulnerable to this mental health issue, particularly in the 15 to 29 age group as suicide is the second largest cause of death among this population. Specifically, university students are a population that is especially susceptible to mental health problems and suicidality (Juhnke et al., 2011). Most of them