

**DOES SUPERSTITION HELP? A STUDY ON THE RELATIONSHIPS AMONG
SUPERSTITIONS, DEATH BELIEFS, PERSONALITY, AND DEATH ANXIETY OF
UNIVERSITY STUDENTS IN HONG KONG**

BY

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ABSTRACT

Objectives: Past research has shown that traditional Chinese death beliefs are related to death anxiety. Many of them are considered as superstitious thoughts. However, other studies have shown that superstitions may help people cope with uncertainty and reduce uncertainty-induced anxiety. The role of superstitions, whether related to higher death anxiety, or help reduce death anxiety is unclear. This study attempted to address the knowledge gap by examining the relationships among superstitions, Chinese death beliefs, intolerance of uncertainty, coping strategy, and death anxiety in the Chinese context. **Methods:** In this study, 124 undergraduate students in Hong Kong completed the Intolerance of Uncertainty Scale (IUS), Ways of Coping Questionnaire (WCQ), Multi-dimensional Fear of Death Scale (MFODS), Revised-Paranormal Belief Scale (R-PBS), Chinese Superstition Scale, and the Traditional Chinese Death Beliefs Scale. **Results:** Superstitions, intolerance of uncertainty and escape-avoidance coping were found to be predictors of death anxiety. **Discussion:** The study took the first step to bridge the knowledge gap in understanding the role of superstitions, tolerance to uncertainty, and avoidance coping with relation to death anxiety. With superstitions highly prevalent in Chinese societies, the study has practical implications in end-of-life care, bereavement support, and death education in the Chinese context.

Keywords: Superstitions, Uncertainty, Coping, Death anxiety, Chinese.

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CHAPTER 1

INTRODUCTION

As an international city, Hong Kong has been under the influence of Western culture which is more open to experiences (McCrae, Yik, Trapnell, Bond, & Paulhus, 1998). However, death, generally considered not a happy experience, is still a forbidden topic to discuss seriously even within families among Hong Kong Chinese. With the collectivist culture, Chinese may try to consider others' feelings and avoid arousing negative emotions. It seems Chinese who seldom talk about death seriously may repress and displace their death related thoughts in other situations, such as superstitions or death beliefs. Considered death as a sensitive topic especially among Chinese, research on death anxiety is under-studied in Chinese society. It would be useful if any measurement not directly related to death can help predict or assess death anxiety in Chinese context.

Superstitious beliefs are prevalent in the Chinese culture. As one walks along the streets in Hong Kong, it is not difficult to find newspaper booths, with piles of books on Chinese Zodiac for the twelve animal signs telling your luck, fortunes, love, or career prospect in the year. As one goes inside domestic or commercial buildings, one could hardly find lifts with buttons for 4th floor, and floors ending with a '4' which pronounce the same as the word 'death' or 'die'. Even for the government of the Hong Kong Special Administrative Region, on the 2nd day of the Lunar New Year, officials representatives would go to the Che

Kung Temple (車公廟: a temple built to worship the Marshal Che in Song Dynasty, who successfully suppressed rebellions and controlled the spreading of epidemic diseases) to seek for the sign of Hong Kong in the new year.

With the superstitious belief that talking about something bad may bring bad luck or consequences, Chinese tend to avoid saying words with unlucky meaning. Many Chinese superstitious beliefs are related to death, which is being considered an unhappy and unfortunate event that it would be interesting to study the relationship between superstitions and death anxiety. Despite superstitions are widely prevalent in Hong Kong, to date, there is no research examining the relationship of superstitions and death anxiety. This study thus aims to fill in the knowledge gap by examining if superstitions would have any correlation with death anxiety.

Furthermore, considering Chinese tend to avoid the taboo topic of death, the present author would like to explore if other indirect means, such as whether superstitions, personality correlates such as coping could help predict or assess the death anxiety level. With the high prevalence of superstitions deeply rooted in Chinese culture, as well as the death experiences one might encountered, the potential predictors would have great implications on death education. Death does not restrict to elderly, but also to children and adults that every age group needs to face death of one's own or others one day. It would be of practical use in educating children and teenagers with a proper view of death, superstitions

and myths. In addition, able to identify the knowledge gap of the role of superstitions and coping on death anxiety would have clinical implications in helping patients cope with death anxiety in their end-of-life especially for those diagnosed with incurable or chronic diseases, and those who need to face the dying of their beloved and in bereavement. Furthermore, doctors, nurses, caregivers in elderly homes need to face death and dying patients from time to time that the knowledge gap would provide implications for the handling of superstitious beliefs and death anxiety.

CHAPTER 2

LITERATURE REVIEW

The present author would base on past research findings to reveal the relationships among superstitions, Chinese death beliefs, personality correlates of intolerance of uncertainty and coping strategy with death anxiety. Those findings would set as the framework for formulating hypotheses. The objectives of the present study would be summarized at the end of this chapter.

2.1 Death Anxiety

Death is universal, irreversible, and mysterious that no person knows what death is like. Even people who accept the reality may still possess fear and be anxious of death (Firestone, 1994). In Hong Kong, there were around 41,300 deaths in 2008 (Census and Statistics Department, 2009). Assuming domestic household size of 3 based on the statistics, there would be around 125,000 people needed to face deaths of their own or their household members every year. The figure would even multiply if including deaths of family members living apart, close friends and relatives. Assuming each person with 10 significant others, over 400,000 people would be affected every year, and one would encounter at least one death of their own or significant others in about 15 years. Knowing the concerns and fears of death people possess could provide practical implications to death education, bereavement support and end-of-life care directives in society.

Death anxiety is a cluster of death attitudes which are characterized by negative

psychological reactions, including fear, threat, unease, discomfort, irritation, pain or other emotional responses (Neimeyer, Moser, & Wittkowski, 2003). Early research used instruments to measure single-dimensional general death anxiety (McMordie & Kumar, 1984; Schumaker, Warren, & Groth-Marnat, 1991). However, recent research indicated death anxiety is multi-dimensional with different facets in cognitive processes and psychological emotions, such as fear of the dying process, horror in seeing dead bodies (Hoelter, 1979; Neimeyer & Moore, 1994). Research also indicated Chinese adults with higher level of death anxiety are less willing to commit posthumous organ donation (Wu, 2008) that they may have higher death anxiety on certain aspect such as being destroyed, while terminal cancer patients exhibited fear of punishment and annihilation in death (Elahi, 2008). Research also suggested that nurses indicated higher anxiety on dying process, sudden death or cancer diagnosis, and death of significant others (Duran & Sabanés, 2001; Shih, Gau, Lin, Pong, & Lin, 2006). However, within the limited studies that examine Chinese death anxiety, only few have used multi-dimensional scale for measurement (Hui & Fung, 2009). More research using multi-dimensional aspect is encouraged to well-validate the death anxiety scale (Neimeyer, Wittokowski & Moser, 2004) particularly in Chinese context.

Regarding gender differences, research findings are inconsistent. Some studies found no difference between men and women (Fortner & Neimeyer, 1999; Wong, Reker, & Gesser, 1994). However, most recent research indicated women generally reported a higher level of

death anxiety than men (Ens & Bond, 2007; Neimeyer & Fortner, 1995; Tomer & Eliason, 2000). Some researchers suggested the gender differences may reflect women's tendency to admit emotional feelings (Wass & Neimeyer, 1995; Fortner & Neimeyer, 1999). In addition, little empirical research has been conducted to study the gender differences with respect to religiosity and death anxiety. In a study on middle-aged subjects, Wittkowski (1988) found gender differences that men's fear of dying and loss of another person was negatively correlated with their religiosity, whereas women's fear of own dying was having a negative association with religiosity. However, in a study by Ens and Bond (2007), the relationship between religiosity and death anxiety was weak. Therefore, it would be interesting to understand the gender differences in death anxiety, with respect to religiosity in Chinese undergraduate students, which would be examined in this study.

2.2 *Superstitions*

Corsini (2002) defines superstition as "a belief or practice based on the operation of supernatural or magical forces, such as charms, omens or exorcism" or "any unscientific belief accepted without question, groundless or unfounded notion". In the world that pursues scientific findings, superstitions being considered as irrational and unfounded should be incompatible in developed countries that are technologically and economically advanced. However, superstitions seem to sustain in different cultures and planted in minds of people across all socioeconomic status and education levels (Nemeroff & Rozin, 2000; Vyse, 1997),

passing the beliefs from one generation to another.

Chinese may be considered among the most superstitious people in the world. With thousands years of history and civilization, Chinese has developed many different kinds of superstitious beliefs. Feng Shui (Chinese geomancy), literally meaning 'wind' and 'water' respectively is the belief that harmony of people and environment has an effect on people's health, wealth, career, etc. Palmistry, the reading of lines and shapes of hands, is similar to physiognomy, the reading of faces to tell the fates. Tong Sing (通勝: Chinese almanac), originally is named as 'Tong Shu' is a book published for more than 200 years which consists of almost everything for Chinese in those days (Absolutely Feng Shui, 2008). However, 'Shu' meaning book, pronounces like the word 'lose' while 'Sing' pronounces like the word 'win' that Chinese renamed it as 'Tong Sing' which sounds more auspicious. The book includes "Spring Cow and Feng Shui Chart"; "Auspicious and Inauspicious Dates for Activities"; "Chinese Birth Weight Astrology", etc. It is a common practice in Hong Kong to check an auspicious year and day through Tong Sing in planning important events, such as wedding ceremony, foundation stone laying ceremony. Some parents in Hong Kong also choose an auspicious day for cesarean dissection when giving birth. Despite the popularity and prevalence of superstitions, psychological correlates of Chinese superstition are under-studied and superstitions measurement specific for Chinese culture is scarce that need to be explored.

To date, the role of superstitions, whether related to higher death anxiety, or help

reduce death anxiety has never been explored. Examining the correlation between superstitions and general anxiety is inconsistent and with controversy. Some past research indicated superstitions were most prevalent in societies or careers that posed hazards or high risks to people's lives, such as hunters, miners, fishermen (Renard, 1987), suggesting the function of superstition was to help people cope with uncertainty and reduce threat or uncertainty-induced anxiety (James & Wells, 2002; Tsang, 2004). On the other hand, some studies found that superstition was positively correlated with anxiety level among adolescence (Okebukola, 1986) and also obsessive compulsive disorders (OCD) symptomatology (Frost, Krause, McMahon, & Peppe, 1993; Warshowsky, 2007) that a strong believer in superstitions would be more likely to exhibit a higher level of anxiety. Whether superstition is related to higher death anxiety would be of high interest.

Opponent Process Theory (OPT) may be able to give us some insight regarding the seemingly conflicting research findings in understanding superstitions and death anxiety.

According to OPT, two antagonistic internal processes namely the a-process and the b-process (Solomon & Corbit, 1974). Following superstitions might help reduce the anxiety emotion induced from threats and uncertainties by giving a sense of relieved emotion (a-process). However, the anxiety (antagonistic b-process) still sustains and even might be strengthened with repeated practice of superstitious beliefs. Applying this theory in superstitions and death anxiety, we would expect superstitions be positively correlated with

death anxiety. If the assertion is true, it would suggest government bodies, health organizations and public to have a serious thought and understanding of the role of superstitions and myths on mental health.

Regarding psychological measures on superstitions, early research paid little attention to the reliability of the measurements (Plug, 1976). Until recent decades, superstitions or paranormal beliefs scale was developed with satisfactory reliability and validity, such as the Paranormal Belief Scale (PBS; Tobacyk & Milford, 1983) and its revised version (R-PBS; Tobacyk, 2004) which were widely used in measuring superstitions in Western countries (Dag, 1999; Groth-Marnat & Pegden, 1998; Roig, Bridges, Renner, & Jackson, 1998). This leads to the question whether the scale is applicable to the East, or specifically, Chinese societies considering culture plays a critical role in understanding superstitions. For example, in Western countries, number 13 would be unlucky but in Chinese societies, it is a lucky number which pronounces similar to “live definitely”. Instead, the number 14 would be inauspicious to Chinese which pronounces similar to ‘die definitely’. Thus, the scale may require tailoring to make it compatible with Chinese culture. Despite a Chinese superstition scale was recently developed by Yung (2006), the scale needs to be well validated in more empirical studies. Hence, in the present study, the author would study the association between death anxiety and superstitions, as well as cross validate the R-PBS and the Chinese Superstition Scale.

Research studying relationship between superstitions and religiosity generated inconsistent results. Some suggested superstition was positively correlated with religiosity (Buhrmann & Zaugg, 1983; Francis, Robbins, & Williams, 2006) whereas some suggested no relationship among them (Gallagher & Lewis, 2001; Jones, Russell, & Nickel, 1977). In addition, although recent research suggested there were gender differences in superstitions that women with higher superstitions (Dagnall, Parker, & Munley, 2007; Zebb, & Moore, 2003), some found no gender difference in superstitions (Buhrmann, Brown, & Zaugg, 1982; Gallagher & Lewis, 2001). Considering superstitions might be related to death anxiety that women might experience higher death anxiety than men, the present author would propose women with higher superstitions as well. In this research, the present author would explore the relationship between superstitions and religiosity, as well as the gender differences.

2.3 *Chinese Death Beliefs*

Many of the Chinese superstitions are beliefs trying to avoid inauspicious events or promote auspicious events. In particular, many of them are related to traditional Chinese death beliefs, such as visiting others' homes in early bereavement would bring bad luck to others; and discussing death in front of dying persons would speed up their deaths. The death beliefs and rituals are deeply rooted in minds and observed by Chinese fearing the potential negative consequences in violating the cultural norms. Cultural death beliefs seem important in understanding death anxiety according to Terror Management Theory (TMT).

TMT suggests there is a dual-component anxiety buffer for people to deal with potential terror associated with death. One component is to share cultural beliefs to make sense of the universe. The other component is self-esteem, which is the perception of oneself in behaving according to the cultural standards that rendered them eligible for safety in this life and afterlife (Greenberg, Solomon, & Pyszczynski, 1997). In the salience of death or potential terror, individual would share the cultural death beliefs and behave accordingly trying to keep oneself or others safe. Hence, the present author would expect the more traditional death beliefs an individual holds, the higher death anxiety one has.

Some cross-cultural studies contributed in understanding death anxiety between the East and West. Some indicated that Asians generally showed less death anxiety than the West (McMordie & Kumer, 1984; Schumaker, Barracloagh, & Vagg, 1988) except in a study that Japanese exhibited higher death anxiety than Australians (Schumaker et al., 1991). However, with culture as the crucial factor, death anxiety level exhibited by Chinese may be different from people of other Asian countries, such as Indian and Malaysian who were being compared with the West in previous research. Although research in death has received more attention in recent decades, research in Chinese context remains scarce (Tang, Wu, & Yan, 2002). Until recently, Chinese death beliefs were explored which indicated positive correlation with fear of death among Hong Kong Chinese across different ages (Ho, 2007). However, no empirical research has been conducted so far to confirm the positive correlation

of traditional Chinese death beliefs and death anxiety using multi-dimensional scale. With the past research showing the positive correlation between traditional Chinese death beliefs and death anxiety (Ho, 2007), it would be logical to suggest that Chinese death beliefs be correlated with superstitions and death anxiety.

2.4 *Personality Correlates*

Intolerance of Uncertainty. According to the uncertainty hypothesis, people believe that events' outcome are determined by controllable (such as individuals' own power) and uncontrollable forces (such as other people or sources of power). Past research has shown that the more people attributing outcomes to uncontrollable forces, the more superstitious behaviors they would exhibit (Burger & Lynn, 2005, Felson & Gmelch, 1979; Singer & Benassi, 1981; Vyse, 1997). Also, in the salience of uncertainty, superstitions may be used to complement decision making in a way to provide additional information and reduce anxiety induced by uncertainty (Tsang, 2004). If the assertion is true, then it would be logical to expect that person with high intolerance of uncertainty would be more vulnerable to superstitions beliefs.

Research has also indicated that intolerance of uncertainty is positively associated with worry (Dugas, Gosselin, & Ladouceur, 2001; Laugesen, Dugas, & Bukowski, 2003) and anxiety pathologies, such as Generalized Anxiety Disorder (GAD), Obsessive Compulsive Disorder (OCD), and Panic Disorder (Dugas, Gagnon, Ladouceur, & Freeston, 1998; Dugas et al., 2001; Tolin, Abramowitz, Brigidi, & Foa, 2003). Death, without question, is a topic that is

full of uncertainty and nobody can be certain when, and how one would die, and what would happen after death. Past research has shown that uncertainty is associated with threat of loss of one's life (Viney, 1984-1985; Thorson, Powell, & Samuel, 1998). Hence, the present author would expect that people who are with high intolerance of uncertainty would be associated with higher death anxiety, and adopting more superstitious belief to reduce the uncertainty-induced anxiety.

Coping strategy. Coping strategies, or ways of coping, are often classified into two main categories (Chang, 1998; Folkman & Lazarus, 1985; Folkman & Lazarus, 1988). They are problem-focused coping, which involves activities that focus on directly changing elements of the stressful situation to remove the source of stress; and emotion-focused coping, which involves activities that focus on modifying one's internal or emotional reactions resulting from stressful situation to alleviate emotional distress. The problem-focused coping is also referred to as planful problem solving whereas emotion-focused coping as escape-avoidance coping.

Past research has shown that problem-focused coping was negatively correlated with self-rated anxiety, whereas emotion-focused coping was positively correlated with it (Whatley, Foreman, & Richards, 1998). In addition, problem-focused coping was associated with lower symptoms of anxiety whereas emotion-focused coping was with higher symptoms in adult cancer patients (Osowiecki & Compas, 1998). Emotion-focused coping, which focuses on

removing the stressor, was found positively associated with test anxiety among undergraduate students (Cohen, Ben-Zur, & Rosenfeld, 2008) and higher anxiety sensitivity in hearing-impaired individuals (Andersson & Hågnebo, 2003). In view of these, it is proposed that individuals using more problem-focused coping would be associated with lower levels of death anxiety; and escape-avoidance coping would be associated with higher levels of death anxiety. If the assertion is true, it would provide insights on how personality is related to superstitious thoughts and death anxiety.

2.5 *Bereavement Experience*

Past research studying the relationship between bereavement experience and death anxiety is scarce and the findings were inconsistent. Some research found that individual having more bereavement experience would be correlated with less death anxiety (Bluck, Dirk, Mackay, & Hux, 2008). However, participants of that study were volunteers in hospice organizations and the sample size was only around 50 that the findings may not be representative. On the other hand, some research on adolescents found that there were no significant difference on death anxiety between those experienced death in family and those without death experience (Ens, & Bond, 2007). Consider people would encounter death of one's own or significant others at least once in a lifetime, it would be interesting to know if death experience would have any correlation with death anxiety.

2.6 *Conceptual Framework and Hypotheses*

To reiterate, this study aims to evaluate the association between death anxiety, superstitions, death beliefs, and personality correlates of intolerance of uncertainty and coping among university students in Hong Kong. In particular, if superstitions, or personality correlates could help predict the death anxiety level, it would provide insights on how people should deal with myths, factors related to death anxiety, and the directives of death education to end-of-life patients, caregivers, medical helpers and the general public. In this research, the present author would examine the following:

- (1) Would there be any difference on death anxiety level as well as superstitions level across gender, and religiosity?
- (2) Would superstitions be correlated with death anxiety? If so, would superstitions be able to predict death anxiety?
- (3) Would people with stronger traditional Chinese death beliefs exhibit higher level of superstitions and death anxiety?
- (4) Would intolerance of uncertainty and coping strategy be associated with superstitions, and death anxiety?
- (5) Would bereavement experience be associated with death anxiety and superstitions?

CHAPTER 3

METHODOLOGY

In the present study, the following hypotheses were examined.

- (H1) Women would exhibit higher death anxiety than men.
- (H2) Participants without religion would exhibit higher level of death anxiety.
- (H3) Women would exhibit higher superstitions than men.
- (H4) Participants with and without religion would exhibit similar levels of superstitions.
- (H5) Superstitions would be positively correlated with death anxiety.
- (H6) Participants with stronger traditional Chinese death beliefs would exhibit higher level of superstitions and death anxiety.
- (H7) Intolerance of uncertainty would be positively correlated with death anxiety and superstitions.
- (H8) Problem-focused coping would be related to lower death anxiety and superstitions.
- (H9) Escape-avoidance coping would be related to higher death anxiety and superstitions.
- (H10) Participants with and without death experience would exhibit similar levels of superstitions and death anxiety.

3.1 Participants

A total of 126 undergraduates studying at City University of Hong Kong participated in this study. Two participants with more than 3 questionnaire items missing were excluded

resulting in a total of 124 participants' responses being processed in the data analysis.

Participants' age ranged from 19 to 73 ($M = 23.44$, $SD = 0.74$); 49 were males (39.5%) and 75 were females (60.5%). All the students were Hong Kong Chinese and they participated voluntarily without any monetary reward.

3.2 Instruments

All of the proposed instruments have been used in prior research and all of them have good psychometric properties except for the Chinese Superstition Scale and Traditional Chinese Beliefs Scale which are newly developed without much validation. Instruments of Multi-dimensional Fear of Death Scale (MFODS), Intolerance of Uncertainty Scale (IUS), subscales of Ways of Coping Questionnaire (WCQ) and Revised-Paranormal Belief Scale (R-PBS) were translated into Chinese and verified through back translation.

Death Anxiety. The Multi-dimensional Fear of Death Scale (MFODS; Hoelter, 1979; Neimeyer & Moore, 1994) is a 42-item self-reported questionnaire (Cronbach's $\alpha = .91$) measuring different facets of fear of death demonstrated satisfactory internal consistency. MFODS includes eight subscales measuring: Fear of the Dying Process (6 items, $\alpha = .80$); Fear of the Dead (6 items, $\alpha = .80$); Fear of Being Destroyed (4 items, $\alpha = .75$); Fear for Significant Others (6 items, $\alpha = .77$); Fear for the Unknown (5 items, $\alpha = .28$); Fear of Conscious Death (5 items, $\alpha = .55$); Fear for the Body after Death (6 items, $\alpha = .78$); and Fear of Premature Death (4 items, $\alpha = .73$). The items were scored on a 5-point Likert scale from 1

(*strongly agree*) to 5 (*strongly disagree*). Apart from the subscale Fear for the Unknown, all subscales were with acceptable to good reliability coefficients. Five of the 42 items oppositely phrased were reverse-scored. The lower scores on each subscale representing higher levels of death anxiety.

Superstitions. Superstition subscale of the Revised-Paranormal Beliefs Scale (R-PBS) and Chinese Superstition Scale were used to measure superstitious level in the study. Superstition subscale of R-PBS (Tobacyk, 2004) consists of 3 items ($\alpha = .84$), such as “If you break a mirror, you will have bad luck”. The items were scored on a 7-point Likert scale, from value 1 (*strongly disagree*) to 7 (*strongly agree*) with mid-value of 4 (*uncertain*). For the remaining 2 items, “Black cats can bring bad luck” and “The number “13” is unlucky”, slight changes on the wordings were made, that ‘black cats’ was re-phrased to ‘crow’ whereas number ‘13’ was changed to ‘14’ to better suit the cultural difference in preserving the original meaning before translation to Chinese. A higher score represents higher level of superstition beliefs.

For the Chinese Superstition Scale (Yung, 2006), it includes 20 items with Cronbach’s α of .96 which is highly reliable with convergent validity with Paranormal Belief Scale (PBS). In this study, the scale achieved high reliability coefficient of .97. The scale includes items such as “Things received in funeral should not be kept” and “Cutting roasted pig ceremony could bring good luck”. Items of the scale were scored on a 6-point Likert scale, ranging from

1 (*absolutely disagree*) to 6 (*absolutely agree*) and a higher score represents higher superstitions.

Death Beliefs. Traditional Chinese death beliefs would be measured using the scale developed by Ho (2007). The scale consists of 8 items constructed based on past literature on traditional Chinese about death (Cronbach's $\alpha = .90$). In this study, the scale achieved high reliability coefficient of .88. Items include "Thinking or talking about death can bring bad luck"; and "Visiting the home of the deceased can bring misfortune". The items were scored on a 4-point Likert scale from value 1 (*strongly disagree*) to 4 (*strongly agree*). A higher score indicates having more Traditional Chinese death beliefs.

Intolerance of Uncertainty. Short version of the Intolerance of Uncertainty Scale (IUS) was adopted which contains 12 items (Cronbach's $\alpha = .77$) which is highly correlated ($r = .96$) with the full version which consists of 27 questions (Carleton, Norton, & Asmundson, 2007). Items include "I can't stand being taken by surprise", and "I must get away from all uncertain situations". The items were scored on a 5-point Likert scale from 1 (*not all characteristics of me*) to 5 (*entirely characteristics of me*). A higher score indicates a higher intolerance of uncertainty.

Coping Strategy. Problem-focused coping and emotion-focused coping was measured using the Planful Problem Solving subscale and Escape Avoidance subscale respectively of the well established Ways of Coping Questionnaire (WCQ; Folkman & Lazarus, 1988). The

WCQ was described by Schwarzer and Schwarzer (1996) as the standard measure in the field of coping strategies. The Planful Problem Solving subscale (WCQ-PS) involves 6 items ($\alpha = .73$) such as “I made a plan of action and followed it”. The Escape Avoidance subscale (WCQ-EA) consists of 8 items ($\alpha = .54$) such as “I hoped for a miracle”. Respondents were instructed to indicate the extent to which he or she used each particular coping strategy when facing difficulties on a 4-point Likert scale ranging from score 0 (*Does not apply or not used*) to 3 (*Used a great deal*). A high score denotes high usage of corresponding coping strategy.

3.3 Procedure

Questionnaires written in Chinese were distributed during classes of Applied Social Studies Department. Only students volunteered to participate would receive questionnaires. For scales that do not have Chinese version (IUS, WCQ, MFODS, R-PBS), they were first translated into Chinese by the present author and then back-translated to English by another bilingual person. The two English versions were compared to ensure the meaning was the same. The questionnaire consists of: (1) a short explanatory note of the purpose of the study and an assurance of anonymity of the respondents; (2) short version of IUS; (3) two subscales of WCQ; (4) MFODS; (5) R-PBS Superstition subscale; (6) Chinese Superstition Scale; (7) Traditional Chinese Death Beliefs Scale; and (8) demographics questions on religious beliefs and bereavement experience. The study was considered to involve no more than minimal-risk to participants' well-being. The students were requested to fill in the questionnaires in class

which took approximately 10-15 minutes to complete.

Participants were invited to contact the present author should they have queries about the study or concerns about their personal well-being. In distributing the questionnaires, the present author also highlighted to participants that they should stop filling the questionnaire at once if feeling discomfort. Contacts for follow up were provided in case the participants felt discomfort or have questions after filling the questionnaires.

Demographics Information. Socio-demographic information including gender, age, religion, and bereavement history were included in the questionnaire. Self assessment on their superstitious level, religiosity, and death anxiety level were also included.

Statistical Analysis. All statistical computations were carried out using SPSS for Windows version 15.0 (SPSS, 2006).

CHAPTER 4

RESULTS

4.1 *Descriptive Statistics*

Descriptive statistics of 124 participants were summarized in Table 1. Female participants were of greater proportion (60.5%) in the sample. Around 36% reported with religion ($N = 44$). Participants with missing entry on religion ($N = 1$) and who reported religion as “Other” ($N = 2$) or “Atheist” ($N = 5$) were excluded in the religion analyses. To increase statistical power for analysis on religiosity, the present author grouped the participants ($N = 116$) into 2 categories, with religion ($N = 43$; including Protestants, Catholics, Buddhist, folk religion believers) and without religion ($N = 73$). Regarding death experience, 67.7% ($N = 84$) experienced death of family members, 18.5% ($N = 23$) of friends, and 37.9% ($N = 47$) of pets previously.

Table 1

Descriptive statistics (N = 124)

		<i>N</i>	Percent (%)
Age (years):	19-21	56	45.2
	22-23	52	41.9
	24 or above	16	12.9
Gender:	Male	49	39.5
	Female	75	60.5
Marital Status:	Single	119	96.0
	Married	4	3.2
	Divorced	1	0.8
Religion ^a :	Catholics	4	3.2
	Protestants	33	26.6
	Buddhists / Folk	6	4.8
	Atheists	5	4.1
	Others	2	1.6
	No religion	73	58.9

Note. ^a *N* = 123 with 1 missing entry.

The correlations among self-assessed death anxiety and subscales of MFODS were listed in Table 2. Apart from the relationships between Fear of Being Destroyed and Fear for Significant Others, and between Fear of Conscious Death and Fear of Body after Death, all the subscales were found significantly inter-correlated, with correlations ranged from .19 to .57. With the mild to moderately-high inter-correlations, the subscales may not be applicable for measuring multi-dimensional aspects of death anxiety among Chinese. The MFODS was also found with high correlation with self-assessed death anxiety ($r = .60$) suggesting it was a valid measure of death anxiety for the sample.

Table 2

Correlations Coefficients Among Death Anxiety Measures (N=124)

	1	2	3	4	5	6	7	8	9	10
1. MFODS	--									
2. Fear of Dying Process	.76***	--								
3. Fear of the Dead	.74***	.51***	--							
4. Fear of Being Destroyed	.60***	.29**	.35***	--						
5. Fear of Significant Others	.54***	.44***	.48***	.10	--					
6. Fear of Unknown	.55***	.26**	.19*	.31***	.21*	--				
7. Fear of Conscious Death	.66***	.51***	.37***	.24**	.22*	.30**	--			
8. Fear of Body After Death	.78***	.45***	.47***	.57***	.16	.48***	.49***	--		
9. Fear of Premature Death	.70***	.52***	.37***	.30**	.35***	.40***	.42***	.47***	--	
10. Self-assessed Death Anxiety	-.60***	-.47***	-.34***	-.41***	-.29**	-.40***	-.36***	-.43***	-.53***	--
<i>Mean</i>	2.61	1.96	2.45	3.29	1.77	2.92	2.82	3.47	2.41	4.90
<i>SD</i>	0.54	0.77	0.88	0.99	0.60	0.65	0.77	0.86	0.92	2.53
<i>Minimum</i>	1.52	1.00	1.17	1.00	1.00	1.20	1.00	1.67	1.00	0.00
<i>Maximum</i>	4.40	5.00	5.00	5.00	4.17	4.60	4.60	5.00	5.00	10.00

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

High correlations with Pearson correlation coefficient ranged from .56 to .70 were found within the 3 superstitions measures: R-PBS Superstition subscale, Chinese Superstition Scale, and self-assessed superstition. Chinese Superstition Scale was found with convergent validity with the R-PBS Superstition subscale, $r(122) = .70, p < .001$, and discriminant validity with WCQ-PS subscale, $r(122) = .08, p = .38$ indicating it may also be a valid measure for superstitions. R-PBS Superstition subscale was also found with high correlation with self-assessed superstitions, with $r(122) = .63, p < .001$ suggesting it is a valid measure for Chinese after the scale items was rephrased with Chinese cultural context.

In the present study, subsequent analysis on death anxiety and superstitions would base on the overall MFODS score and R-PBS Superstition score respectively.

4.2 *Death Anxiety across Gender and Religiosity*

Table 3 shows the frequency data on MFODS and R-PBS. Results of analysis of variance (Figure 1) showed that there was significant main effect of gender on death anxiety, $F(1, 112) = 4.81, p < .05$, with MFODS score significantly higher for men ($M = 2.71, SD = 0.57$) than women ($M = 2.54, SD = 0.51$) indicating men with less death anxiety. The main effect of religion also yielded F -ratio of $F(1, 112) = 4.13, p < .05$, with MFODS score significantly higher for those with religion ($M = 2.70, SD = 0.66$) than those without religion ($M = 2.54, SD = 0.44$) indicating participants without religion were having higher death anxiety level than those with religion. These confirmed with hypotheses H1 and H2. The

interaction effect of gender and religion approached statistical significance, with $F(1, 112) = 3.64, p = .06$.

Table 3

Mean Scores of MFODS and R-PBS-Superstition Across Gender and Religiosity (N=116)

		Male (N=45)		Female (N=71)	
		Mean	SD	Mean	SD
MFODS	With religion	2.97	0.65	2.55	0.62
	No religion	2.56	0.47	2.53	0.43
R-PBS Superstition	With religion	2.06	1.11	2.79	1.46
	No religion	1.99	1.18	2.90	1.04

Note. 43 participants with religion; 73 without religion.

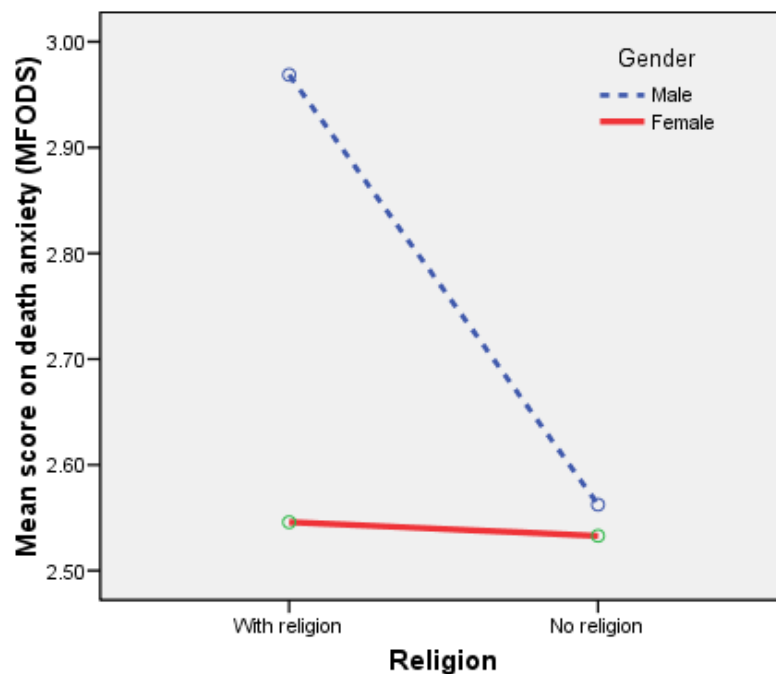


Figure 1. Two-factor study on death anxiety (MFODS) across gender and religion.

To better understand the marginal interaction effect, *t*-tests were performed on religiosity and gender. Results showed that for individuals without religion, no significant difference for men and women was observed, $t(71) = .36, p = .78$. Also, no significant difference for women with and without religion on death anxiety, $t(69) = .10, p = .92$; However, men with religion exhibited significantly less death anxiety than those without religion, $t(43) = 2.42, p < .05$.

4.3 *Superstitions across Gender and Religiosity*

For superstitions, results showed that there was significant main effect of gender, $F(1, 112) = 12.06, p < .01$, with superstition score significantly lower for men ($M = 2.01, SD = 1.14$) than women ($M = 2.86, SD = 1.21$) indicating women exhibited higher superstitions than men confirming the hypothesis H3 (Figure 2). The main effect of religion yielded *F*-ratio of $F(1, 112) = .01, p = .94$ indicating participants with religion ($M = 2.52, SD = 1.37$) were not significantly different from those without religion ($M = 2.54, SD = 1.18$) confirming hypothesis H4. The interaction effect of gender and religion was also not significant, $F(1, 112) = .15, p = .70$.

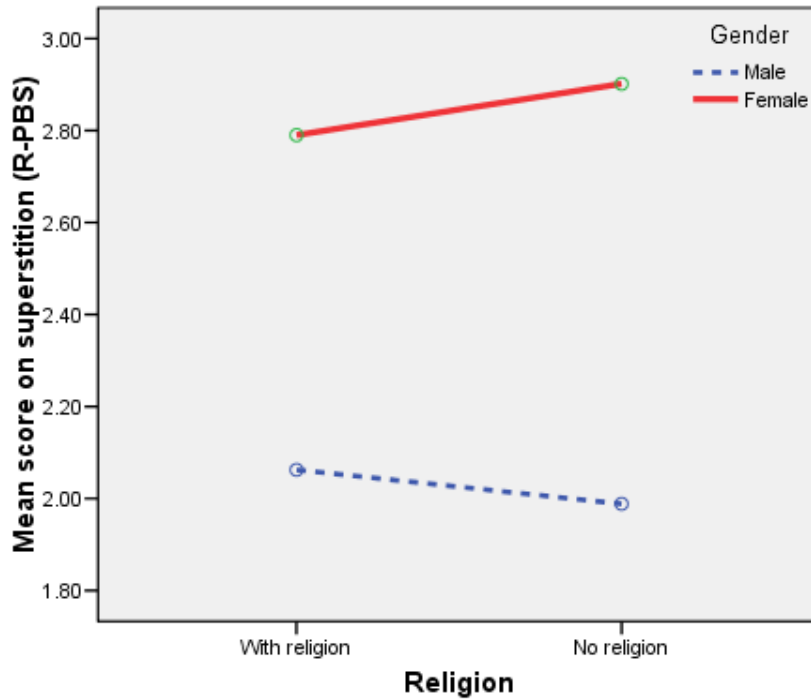


Figure 2. Two-factor study on superstitions (R-PBS) across gender and religion.

4.4 Superstitions and Death Anxiety

Pearson's product moment correlation coefficients between death anxiety, superstitions, death beliefs and personality correlates were summarized in Table 4. Regarding relationship between superstitions and death anxiety, results indicated there was a significant moderate-to-high negative relationship between superstitions (R-PBS) and MFODS score, $r(122) = -.42, p < .001$, indicating superstitions were positively correlated with death anxiety. This confirms with hypothesis H5. With the moderately-high correlation, superstitions could predict one's death anxiety level.

Table 4

Correlations Coefficients Among the Variables (N=124)

	1	2	3	4	5	6
1. MFODS	--					
2. R-PBS-Superstition	-.42***	--				
3. Chinese Death Beliefs	-.36***	.61***	--			
4. IUS	-.43***	.28**	.35***	--		
5. WCQ-PS	-.08	-.02	-.05	.04	--	
6. WCQ-EA	-.42***	.19*	.21*	.43***	.12	--
<i>Mean</i>	2.61	2.51	1.96	2.99	2.75	2.25
<i>SD</i>	0.54	1.25	0.54	0.53	0.48	0.43
<i>Minimum</i>	1.52	1.00	1.00	1.58	1.67	1.13
<i>Maximum</i>	4.40	5.67	4.00	4.67	4.00	3.13

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

4.5 *Death Beliefs with Death Anxiety and Superstitions*

Traditional Chinese death beliefs was also found highly correlated with superstitions, $r(122) = .61, p < .001$, indicating participants who were more superstitious were more likely to have stronger traditional death beliefs. Chinese death beliefs were also found with significant moderate correlation with death anxiety, $r(122) = -.36, p < .001$ indicating participants having more death beliefs were also with higher death anxiety supporting hypothesis H6. To further understand the relationship among superstitions and death beliefs, partial correlation was conducted. After controlling death beliefs score, superstitions remained with significant correlation with death anxiety, $r(121) = -.28, p < .005$. On the other

hand, after controlling superstitions, death beliefs no longer had significant correlation with death anxiety, $r(121) = -.14, p = .12$.

4.6 *Personality Correlates with Death Anxiety and Superstitions*

Results also showed that IUS was negatively correlated with MFODS with moderately-high relationship, $r(122) = -.43, p < .001$ and with significantly mild association with superstitions, $r(122) = .28, p < .01$. Participants who were more intolerant for uncertainty were found with higher level of death anxiety, as well as higher superstitions level confirming hypothesis H7.

Regarding ways of coping, results showed that problem-focused coping (WCQ-PS) was not statistically significant with death anxiety as well as superstitions that the hypothesis H8 was rejected. On the other hand, escape-avoidance coping (WCQ-EA) was found significantly associated with death anxiety with moderately high relationship, $r(122) = -.42, p < .001$, and significantly mild relationship with superstitions, $r(122) = .19, p < .05$.

Participants who were more intolerant for uncertainty, and those who tend to adopt escape-avoidance coping were found with more superstitions and higher death anxiety supporting hypothesis H9.

4.7 *Bereavement Experience with Death Anxiety and Superstitions*

Furthermore, *t*-tests were conducted to examine the relationships between death anxiety and bereavement experience of family members, friends and pet. Results indicated

there was no significant relationship between death anxiety and bereavement experience of neither family members, $t(120) = 1.21, p = .23$; friends, $t(120) = 1.04, p = .30$; nor pet, $t(120) = .83, p = .41$. Similarly, no significant relationship was found between superstitions and bereavement experience: family members, $t(120) = 1.26, p = .21$.; friends, $t(120) = 1.21, p = .23$; and pet, $t(120) = -1.35, p = .18$. These confirmed with hypothesis H10.

4.8 Regression Analysis

Linear regression analysis was performed by regressing death anxiety (MFODS) on superstition (R-PBS), intolerance of uncertainty (IUS), and escape-avoidance coping (WCQ-EA). Results indicated that superstition was a significant predictor of death anxiety ($\beta = -.31, p < .01$). IUS and WCQ-EA were also significant predictors, with $\beta = -.23, p < .01$ and $\beta = -.26, p < .01$ respectively. These 3 predictors accounted about one-third of the variance in death anxiety scores ($R^2 = .32$) which was highly significant, $F(3,120) = 20.49, p < .001$. All tolerance values for the predictor variables were between .78 and .92 that multicollinearity was out of concern.

CHAPTER 5

DISCUSSION

This study was an attempt to bridge the knowledge gap in understanding the relationships between superstitions and its psychological correlates with death anxiety. The results indicated that superstition, intolerance of uncertainty, escape-avoidance coping were reliable predictors of death anxiety among Hong Kong Chinese undergraduate students. The findings and implications of the present study would be discussed in this chapter.

5.1 Superstitions and Death Anxiety

Despite studies suggesting superstition could help people cope with uncertainty and reduce threat or uncertainty-induced anxiety (James & Wells, 2002; Tsang, 2004), the results indicated the more superstitious beliefs one adopts, the more intolerance of uncertainty and higher death anxiety one has. The findings were consistent with the predictions by Opponent Process Theory (OPT). With the threats and uncertainties, death induces emotional anxiety to an individual. Despite adopting superstitions might help reduce the anxiety induced from threats and uncertainties initially by giving a sense of relieved emotion (a-process), the individual would develop tolerance with the practice of superstitions. Similar to drug taking, the death anxiety (antagonistic b-process) would become strengthened making the individual more vulnerable and difficult to refrain from superstitious beliefs resulting in a vicious cycle of superstitions and anxiety.

Unfortunately, superstitions are widespread in Hong Kong. Some seek for blessing for

their successes, some for curing their chronic or terminal illnesses, maintaining healthiness of families, good fortunes, etc. From time to time, deception crimes such as the ‘blessing gangs’ scams were on the news. Middle-aged and elderly with less education backgrounds seem to be particularly vulnerable by those scams (*HKSAR v. Liang Yaqiong Et. Al., 2009*) who were scared after being told from face reading by strangers that their families were troubled or haunted by evil spirits and dreadful events such as death of sons would occur. They were then suggested to give money to the prophets for spiritual blessing to prevent the disasters. Hearing something they could do to avoid the dreadful events but not following the prophets’ suggestions might increase their psychological burden. Despite the actions might sound stupid and irrational, people are still willing to spend money to exchange for dreadful events from happening in their families.

Also, when informed with terminal illness such as cancer or chronic diseases, individuals usually could not accept and deny the fact they are dying and feel angry as suggested by Kubler-Ross (1975). In particular when patients are diagnosed with cancer, they need to go through difficult processes such as chemotherapy and electrotherapy with side effects such as vomiting, losing weight and hair. They might feel angry and perceive the terminal illnesses as punishment and possess fear of annihilation in death (Elahi, 2008). Not only the patients are in pain, family members also encounter hard time accepting the fact that their significant others would be dying soon. Especially when parents seeing their children

suffer, they might consider that as punishment by gods in Chinese context. Patients and their families might be willing to spend all their savings through superstitious acts to exchange for spiritual blessing from whatever gods or supernatural powers to extend the patients' lives and reduce sufferings. Some might even obtain 'spiritual spells' from temples, burned and mixed those with water for their beloved to drink believing the spells would dispel the evil spirits and cure the illnesses. The mortality salience triggered the death anxiety that lead people seek for security under cultural beliefs and superstitions. The superstitions, in conjunction with the inability to tolerate the uncertainty, make them experienced even higher death anxiety and fear of significant others in danger.

Even for children and teenagers, rumors of ghost stories spreading in schools induce threats and danger to them. They might be classically conditioned by associating ghost stories with terror emotion. With the terror that they could not get rid of, they might seek the seemingly haven of cultural beliefs and superstitious thoughts they learnt from traditional legends, media, teachers and even from their families. They might resort to superstitions, such as keeping lucky spells in bags to dispel evil spirits, follow astrology's suggestion, or placing crystals or plants in certain direction to promote luck or success for examinations. However, these may make them even more vulnerable for superstitions and lead to higher and higher anxiety that they could hardly get free from.

Superstitions are not only limited to those with little education backgrounds, but also

to those highly educated or with high socioeconomic backgrounds.. A renowned example in Hong Kong might be the deceased billionaire Nina Wang (Kung Yu Sum), who was a strong believer in Feng Shui and other superstitions even with her riches and high education level (Fong, 2009; “Nina Wang,” 2009). To have spiritual blessings, many companies would also organize ‘cutting roast pig’ or Chinese gods worshipping ceremonies in opening ceremonies or projects implementations to ensure everything goes smooth in the uncertainty. Senior management in financial institutions with high education levels also prone to superstitions that many would consult Feng Shui specialists for placing lucky charms such as crystals, plants in office that would bring them good fortunes and profit (Tsang, 2004). A popular idiom meaning “it would be wise to believe rather than not” (寧可信其有，不可信其無) is in the heart of Chinese. Chinese seem to avoid offending any gods or supernatural forces that would bring unfortunate events to them and their families. Even if unfortunate events still happen after following the superstitious beliefs, people might still think the problems arise because they were not doing enough. They might pursue and follow more and more superstitious beliefs to keep them safe. The superstitious beliefs are never-ending and even elevated, so do their anxieties.

Gender plays a role in examining death anxiety and superstitions across gender and religion. The current findings suggesting women with higher superstitions and higher death anxiety were consistent with previous research conducted by Neimeyer and Fortner (1995),

Tomer and Eliason (2000), Dagnall et al. (2007), as well as Zebb and Moore (2003).

Although some may argue that the findings reflect women were more expressive of their emotions (Wass & Neimeyer, 1995; Fortner & Neimeyer, 1999), the findings may also reflect the real gender difference on death anxiety and superstitions. In particular, the findings seem able to explain the phenomenon in Hong Kong that most street deception crimes victims were women (Hong Kong Police Force, 2008) that deceivers would likely choose targets that would have higher chance to fall into their traps. Women seems vulnerable when they heard themselves or families were in troubles by evil spirits, and would even follow irrational beliefs to save marriage, seek miracles in curing terminal or chronic illnesses with their higher level of superstitions and death anxiety.

Religion also plays a role on death anxiety for men but not for women. Men with religion were found with significantly less anxiety than those without religion. One possible explanation is the social desirability issues that men with religion might want to present themselves as not afraid to death with their religious beliefs. However, it may also reflect the genuine effect of religiosity that men no longer need to stay strong and tough by suppressing their worries and anxiety deep inside. Through religions, their inner worries and death anxiety could be relieved by the faith on resurrection or reincarnation which may provide them a sense of safe haven. Women, on the other hand, seem to have similar death anxiety level no matter with or without religion. This could be explained by the present study's

findings that women were having higher superstitions despite their religiosity, and subsequently, they were having higher death anxiety than men. Superstitions seem to be a major predictor in explaining death anxiety.

5.2 *Death beliefs with Superstitions and Death Anxiety*

Both superstitions and Chinese death beliefs were found positively correlated with death anxiety. After removing the effect of superstitions, death beliefs no longer had significant relationship with death anxiety. On the other hand, superstition still maintained moderate association with death anxiety even the effect of death beliefs was removed. Results of present study suggest superstitions may mediate between traditional Chinese death beliefs and death anxiety. Individual with more death beliefs is likely to be more superstitious and more likely to exhibit higher death anxiety. Death belief, with its cultural specific context, plays a crucial role in understanding death anxiety as suggested by Terror Management Theory (TMT).

Culture is the crucial factor in explaining and giving meaning to death according to TMT. People in different cultures react to death differently (Kubler-Ross, 1975). Chinese with thousands years of history and civilization has developed a unique set of superstitious beliefs and Chinese traditional death beliefs (first component of TMT). The beliefs are mainly originated from a mixture of Confucianism philosophy, and religious beliefs of Buddhism and Taoism (Chang, 1996; Wu, Tang, & Kwok, 2004). According to Buddhism and

Taoism, one's good deeds accumulated in the present life could determine the fate of one's afterlife, and could make benefits to one's ancestors and successors. Following the deeds set by traditional cultural beliefs let Chinese feel eligible for safety and secured (second component of TMT).

The findings of present study suggest that the more cultural death beliefs one has, the more superstitious one might be which are supported by TMT in conjunction with OPT. In the presence of terror or mortality salience, an individual would share the cultural beliefs to seek for security. However, sheltering under the cultural death beliefs may lead the individual becoming more superstitious. Once an individual adopts superstitious beliefs trying to reduce the inner anxiety, one may get indulged in the superstitions and eventually become more superstitious and with even higher death anxiety.

5.3 *Personality Correlates*

Personality correlates, such as intolerance of uncertainty and escape-avoidance coping were also found as predictors of one's superstitions and death anxiety level. The higher the intolerance of uncertainty, the more superstitions one has and the more fears one possesses on death. Individual with higher intolerance of uncertainty may be more likely to exhibit higher death anxiety, attribute outcomes to uncontrollable forces and exhibit more superstitious beliefs which is consistent with the uncertainty hypothesis and past research findings (Burger & Lynn, 2005, Dugas et al., 1998; Felson & Gmelch, 1979; Laugesen et al., 2003; Singer & Benassi,

1981; Vyse, 1997).

However, individual who adopts problem-focused coping were found with similar level of superstitions and death anxiety as those not. It seems that adopting an analytical approach on problem solving could not relieve death anxiety nor reduce superstitions. This can be justified as no matter how intelligent and analytical persons explore on death, death is still mysterious and they would also die one day. Consistent with past research findings, trying to solve an unsolvable task would further increase one's anxiety in particular when one is already experiencing high anxiety (Skinner, 1979; Weisenberg, Gerby, & Mikulincer, 1993). However, this does not imply problem-focused coping is not encouraged. The findings suggest merely by focusing on analytical problem solving coping, it may not help solving the unsolvable puzzle of death.

On the other hand, as expected, emotion-focused coping was related to death anxiety. Individual who adopts escape-avoidance coping to escape from stressful situations and remove stressors would likely exhibit more fears to death. This is consistent with earlier research finding that emotion-focused coping was related to higher anxiety (Cohen et al., 2008). They were also found to have higher superstitions, which is consistent with the present research's findings that death anxiety is correlated with superstitions. Although problem solving may not help reduce death anxiety, escaping from stressful situations would be a worse choice that might lead to even higher death anxiety. Trying to escape and not facing

death, individual might treat death as a taboo topic and eventually fall into the vicious cycle.

Fearing the discussion of death would lead to faster death of their beloved, many Chinese families avoid the discussion and even stop the dying person from talking further on their wish on funeral arrangement. The more the patients and families avoid facing and discussing issues on death, the more fears on death and negative emotions they would have.

The findings also provide some insights on the present study's findings on religiosity. With more chance to talk about death issues in religious settings, individual with religion has more exposure and understanding on death that may help reduce the death anxiety. This suggests facing and discussing death issues openly might help reduce one's death anxiety.

5.4 *Bereavement Experience*

The present study found no significant difference on death anxiety for people with and without bereavement experience of family member, friend, or pet. In current sample mainly consisted of young adults, the findings were consistent with Ens and Bond (2007) using adolescents sample and different from Bluck et al. (2008) with participants from a wider age groups. This suggests that bereavement experience may help people cope with the emotions which may take time to comprehend the death and its meaning. Younger adults who are generally healthy and energetic may perceive death experience different from older adults who started to experience health problems and are physically less fit compare to younger days. However, in the present study, only a dichotomous response on death experience was

asked that details such as closeness with the dead, number of years for the bereavement experience were not included. Such information may help understand the relationship between bereavement experience and death anxiety in a deeper sense.

5.5 *Implications and Conclusions*

The present research was a first attempt to bridge the knowledge gap on understanding the relationship between superstitions and death anxiety. The findings provide important clinical implications that knowing one's superstitious level, intolerance of uncertainty, and coping style could help predict one's death anxiety. Many people are diagnosed with critical illness, or incurable illness that people have to face the death of their own or significant others. Understanding the role of superstitions and the correlates could help medical professionals or hospice caregivers to identify patients and families at risk, and seek ways to help those to cope with their end-of-life and the bereavement.

In particular, superstitions play a critical role in understanding death anxiety. Superstitions permeated into families of everyday life with media spreading the beliefs through newspapers, commercials, magazines, drama and even in information channels. Originally, people might want to try control their fates or avoiding disasters by manipulating the environment, like Feng Shui or even follow some irrational acts. However, it seems eventually, people might get into the dilemma that they become under the control of superstitions. Getting indulged in superstitions is like taking drugs, that their minds could

never set free from the thoughts and even got more worries and higher anxiety. Also, many street deceptions crimes in Hong Kong are preying on people's superstitions, caring for health and welfare of their family members (*HKSAR v. Chan Kam Po, 2002; HKSAR v. Zheng Youwen Et. Al., 2009*). Not only they could not manage their fates through superstitions, they are more likely to fall into traps of deceptions.

In fact, many superstitious beliefs could be broken just with little courage. To help reduce death anxiety, general public should face death positively and be more open to discussion on death with families and friends, such as their views on death, death arrangements, how their funerals to be conducted, and their wills. Government or hospice organizations could arrange field trips to funeral parlor or cemetery, for better understanding and preparation, and encourage open discussions on death. People who make this little step would likely breakthrough from the superstitions and reduce the death anxiety.

Education and public policies advocating directives on non-superstitions may be vital to promote healthy cognitions on death beliefs, and with proper view on superstition or myths to general public with all ages. Some Chinese believe the dead body should be in complete form without disfigured that dying without whole body in place would be considered as punishment deserved from gods and disallow the soul to return to the dead bodies. This might also be related to their unwillingness to donate posthumous organ with death anxiety on being destroyed (Wu, 2008). Some traditional Chinese death beliefs are encouraging people to

adopt escape-avoidance coping in bereavement, such as parents should not attend their children's funerals, which deprived parents last chance to say goodbye to their children and discouraged themselves to express their sad emotions in public and obtain social support. Death education should be reviewed and promote the correct moral values to public; and encourage social support and apathy with those in bereavement. Death education on adults, teachers are particular important as they would pass their beliefs to the next generation and are role models for the younger ones. Government should also promote death education programs in elderly centres, end-of-life care and bereavement support to counteract the superstitious beliefs patients and families possess, such as having cancers or terminal illnesses as punishment and annihilation in death (Elahi, 2008) and posthumous organ donation would lead one to die in incompleteness (Wu, 2008).

Doctors, nurses and hospice caregivers face deaths and dying patients from time to time. Their beliefs may be indirectly disseminated to the patients that they may need to be sensitive on passing superstitious beliefs to patients. On the other hand, support should also be provided to medical care helpers, as medical helpers such as nurses also experienced anxiety on dying process, and death of significant others (Duran & Sabanés, 2001; Shih et al., 2006).

In recent years, government organizations such as Hong Kong Police Force has been doing good job in the public promotion to avoid street deceptions due to superstitions and

reduced the deception crimes figures (Hong Kong Police Force, 2009). Although government suggested public not to be superstitious, government officials would still go to temple to seek for the sign of the year for Hong Kong on the 2nd day of Lunar New Year. Beijing Olympics is also an example that the opening ceremony was conducted on 8 Aug, 2008 (i.e. 8-8-2008) at 8 pm, in which 8 means fortune and is a lucky number in Chinese culture. Government is suggested to set as role models in breaking superstitions for citizens to follow.

5.6 *Future Research*

In the present study, overall score of MFODS was used to measure death anxiety. The subscales of MFODS were moderately to highly inter-correlated that the multi-dimensional aspects of death anxiety in MFODS might not be applicable in the Chinese context. However, this does not imply that death anxiety is single-dimensional in Chinese culture. Instead, it may further suggest culture plays a critical role in death anxiety perception. By conducting an exploratory factor analysis using principle components method with varimax orthogonal rotation, the present author derived a 6-factor solution through the analysis of component matrix and scree plot (Table 5) and reduced MFODS from 42 to 30 items. The 6 factors in this sample were namely, (1) Perception of after Death; (2) Dying Process; (3) Fear of the Dead; (4) Losing Close Relationship; (5) Life Enjoyment; and (6) Fear of Posthumous Damage. Although death is universal, people's perception and fear on death may be different with different culture. With the limitation of applying the multi-dimensional aspects of fear of

death, this study could only perform analysis based on overall MFODS score on death anxiety. Future research is suggested to develop a reliable, well-validated multi-dimensional death anxiety scale for Chinese that could generalize the findings to Hong Kong Chinese population.

Regarding superstition scale, R-PBS Superstition subscale seem able to measure superstitions in Chinese context after rephrased the wordings to suit the Chinese culture, such as changing number 13 to 14; black cats to crows. However, superstitions, similar to death anxiety, might be with multi-dimensional aspects. Some might be superstitions on achievement and success; some might be for luck; some for curing illnesses and health of significant others, etc. Developing a multi-dimensional scale on superstitions would be helpful to understand different aspects of superstitions and the relationships with other correlates, such as personality, death anxiety.

Lastly, the sample of this study was from undergraduate students studying social science. The sample may not be representative enough in the whole undergraduates' population and the findings may not be able to generalize to whole student populations and general public in Hong Kong. Whether superstitions, intolerance of uncertainty and escape-avoidance coping are predictors to death anxiety would need to be validated in future research.

Table 5

Rotated Component Matrix of MFODS Items (N=124)

MFODS item		Factor					
		1	2	3	4	5	6
BO3.	The thought of my body being found after I die scares me	0.78					
BO6.	The thought of my body decaying after I die scares me	0.78					
BO5.	The thought of being locked in a coffin after I die scares me	0.69					
BO2.	I dread the thought of my body being embalmed some day	0.67	0.48				
BO1.	I am afraid of my body being disfigured when I die	0.59					
BD3.	I do not like the thought of being cremated	0.53		0.44			
UN1.	I am afraid that there is no afterlife	0.53					
CD2.	I am afraid of being buried alive		0.78				
DP2.	I am afraid of dying in a fire		0.77				
DP3.	I am afraid of experiencing a great deal of pain when I die		0.58				
DP6.	I have a fear of dying violently		0.53				
CD4.	It scares me to think I may be conscious while lying in a morgue		0.51	0.42			
DP5.	I have a fear of suffocating (including drowning)		0.47				
DE5.	It would bother me to remove a dead animal from the road			0.80			
DE6.	I am afraid of things which have died			0.65			
DE3.	Discovering a dead body would be a horrifying experience			0.61			

MFODS item	Factor					
	1	2	3	4	5	6
DE2. *			0.55			
DE4.			0.48			
SO3.				0.82		
SO6.				0.82		
SO5.				0.66		
SO2.				0.49		
PD3.					0.75	
PD2.					0.70	
PD1.					0.53	
UN3.		0.43			0.51	
BD1.*						0.85
BD2.						0.77
BD4.		0.42				0.62
CD3.						-0.45

Note. Exploratory factor analysis using principle components analysis with varimax rotation. Loadings < 0.40 were not included. Primary loadings are in bold typeface.

The 8 subscales of MFODS: DP: Fear of the Dying Process; DE: Fear of the Dead; BD: Fear of Being Destroyed; SO: Fear for Significant Others; UN: Fear of the Unknown;

CD: Fear of Conscious Death; BO: Fear of Body after Death; PD: Fear of Premature Death

*Items with reversed scoring in MFODS measurement

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