



**UNIVERSITI PUTRA MALAYSIA**

***CHILD TEMPERAMENT, CHILD-PARENT RELATIONSHIP AND ANXIETY  
AMONG CHILDREN IN CHILDCARE CENTERS IN URBAN SELANGOR,  
MALAYSIA***

**LOW BIAM HONG**

**FEM 2017 18**



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AMONG CHILDREN IN CHILDCARE CENTERS IN URBAN SELANGOR,  
MALAYSIA**

By

**LOW BIAM HONG**

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

**June 2017**

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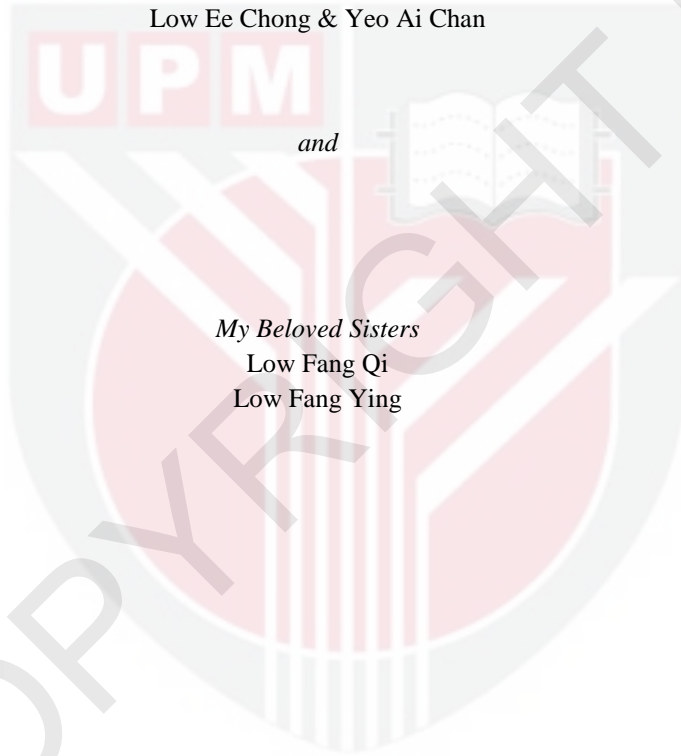
## DEDICATION

*This thesis is dedicated to*

*My Beloved Parent*  
Low Ee Chong & Yeo Ai Chan

*and*

*My Beloved Sisters*  
Low Fang Qi  
Low Fang Ying



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
fulfilment of the requirement for the degree of Master of Science

**CHILD TEMPERAMENT, CHILD-PARENT RELATIONSHIP AND ANXIETY  
AMONG CHILDREN IN CHILDCARE CENTERS IN URBAN SELANGOR,  
MALAYSIA**

By

**LOW BIAM HONG**

**June 2017**

**Chair: Zarinah binti Arshat, PhD**

**Faculty: Human Ecology**

Child anxiety is defined as the feeling of being afraid and out of control. Even though almost every child experiences anxiety, yet when it is persistent it may develop into an anxiety disorder and will eventually affect one's developmental outcome. In Malaysia, the worsening trend of child anxiety has raised the attention and concern of the government and the public in recent years. According to the National Health and Morbidity Survey (NHMS) in 2011, there are one million Malaysian children aged between 5 to 15 years old who are suffering from anxiety, stress, depression and mental health issues. However, only a handful of studies in Malaysia have been conducted on child anxiety and the factors that contribute to it. To address this paucity, the present study was primarily conducted to determine the relationships between child temperament, child-parent relationship and anxiety among children in childcare centers in urban Selangor, Malaysia. Furthermore, this study also determines the mediating role of child-parent relationship on child temperament and anxiety. A total of 319 mothers with children aged between three to six years old from childcare centres in urban Selangor were identified using Multi-Stage Cluster sampling. Data was collected using a self-administered questionnaire. EAS Temperament Survey for Children (Buss & Plomin, 1984), Child Parent Relationship Scale (Pianta, 1998) and Spence Preschool Anxiety Scale (Spence & Rapee, 1999) were utilised to assess child temperament, child-parent relationship and child anxiety symptom respectively. The findings revealed that 14.1% of mothers reported that their child exhibited a high level of child anxiety symptoms. Findings from Pearson Product-Moment Correlation analyses showed that child's emotionality is significant negatively associated with closeness child-parent relationship ( $r = -.33, p < .01$ ). Emotional children also had significant higher levels of child's anxiety symptom ( $r = .25, p < .01$ ). The study revealed that child's sociability was shown to have positive association with closeness ( $r = .18, p < .01$ ) child-parent relationship. A significant negatively association was found between child's sociability and child's anxiety symptom ( $r = -.15, p < .01$ ). Child shyness was found to be significant negatively correlated with closeness of the child-parent relationship ( $r = -.21, p < .01$ ). Close child-parent relationship had significant negative relationship with child's anxiety symptom ( $r$

= -.52,  $p < .01$ ). Multiple regression analysis showed that closeness of the child-parent relationship was the highest unique contribution to the prediction of child's anxiety ( $\beta = -.49$ ,  $p < .01$ ). Child emotionality and anxiety were fully mediated by the closeness of the child-parent relationship. The relationship between child sociability and anxiety were fully mediated by closeness child-parent relationship. The study provides valuable information on how child temperament influences child anxiety through child-parent relationships. These findings may contribute to the implication of theory by shedding light on the role of child temperament and child-parent relationship and how it affects child anxiety, particularly for children in childcare centres. In terms of practical implication, the findings may help relevant parties to have a better understanding on child anxiety.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
sebagai memenuhi keperluan untuk ijazah Master Sains

**TEMPERAMEN KANAK-KANAK, HUBUNGAN IBU BAPA DENGAN ANAK,  
DAN KEBIMBANGAN DALAM KALANGAN KANAK-KANAK DI PUSAT  
PENJAGAAN KANAK-KANAK DI BANDAR NEGERI SELANGOR,  
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Kebimbangan kanak-kanak didefinisikan sebagai perasaan takut dan hilang kawalan. Walaupun hampir kesemua kanak-kanak pernah mengalami kebimbangan, namun apabila ia berlaku secara berterusan ia boleh menjadi kecelaruan kebimbangan dan akhirnya menjejaskan perkembangan seseorang. Di Malaysia, masalah kebimbangan kanak-kanak yang semakin runcing telah mendapat perhatian daripada pihak kerajaan dan orang awam sejak beberapa tahun kebelakangan ini. Menurut *National Health and Morbidity Survey (NHMS)* pada tahun 2011, terdapat satu juta kanak-kanak Malaysia berumur antara 5 hingga 15 tahun mengalami kebimbangan, tekanan jiwa, kemurungan dan isu berkaitan kesihatan mental. Bagaimanapun, hanya sedikit kajian telah dijalankan di Malaysia berkaitan kebimbangan kanak-kanak dan faktor-faktor yang menyebabkan masalah ini. Untuk menangani kekurangan ini, kajian ini dijalankan terutamanya untuk menentukan perkaitan antara temperamen kanak-kanak, hubungan ibu bapa-anak dan kebimbangan dalam kalangan kanak-kanak di pusat penjagaan kanak-kanak di bandar negeri Selangor, Malaysia. Selain itu, kajian ini turut mengkaji pengantara peranan hubungan ibu bapa-anak ke atas temperamen dan kebimbangan anak. Seramai 319 orang ibu yang mempunyai anak berumur dalam lingkungan tiga hingga enam tahun daripada pusat penjagaan kanak-kanak di bandar negeri Selangor telah dikenalpasti menggunakan kaedah persampelan kelompok pelbagai peringkat. Data telah dikumpul menggunakan borang soal selidik yang ditadbir sendiri. *EAS Temperament Survey for Children* (Buss & Plomin, 1984), *Child Parent Relationship Scale* (Pianta, 1998) dan *Spence Preschool Anxiety Scale* (Spence & Rapee, 1999) telah digunakan untuk menilai temperamen anak, hubungan ibu bapa-anak dan simptom kebimbangan anak. Hasil kajian menunjukkan bahawa 14.1% ibu melaporkan bahawa anak mereka mempamerkan simptom tahap kebimbangan anak yang tinggi. Hasil daripada analisis *Pearson Product-Moment Correlation* menunjukkan bahawa emosi anak mempunyai perkaitan negatif yang signifikan dengan keakraban hubungan ibu bapa-anak ( $r = -.33, p < 0.1$ ). Kanak-kanak beremosi juga mempunyai simptom tahap kebimbangan kanak-kanak yang tinggi ( $r = .25, p < .01$ ). Kajian menunjukkan bahawa kanak-kanak yang suka bergaul mempunyai perkaitan yang positif dengan keakraban hubungan ibu bapa-anak ( $r = .18, p < .01$ ). Perkaitan signifikan yang negatif didapati antara anak yang suka bergaul dengan simptom

keimbangan anak ( $r = -.15, p < .01$ ). Sikap malu anak didapati mempunyai perkaitan negatif yang signifikan dengan keakraban hubungan ibu bapa-anak ( $r = -.21, p < .01$ ). Keakraban hubungan ibu bapa-anak mempunyai perkaitan negatif yang signifikan dengan simptom keimbangan anak ( $r = -.52, p < .01$ ). Analisis regresi berganda menunjukkan bahawa keakraban hubungan ibu bapa-anakanak adalah penyumbang unik yang paling tinggi kepada keimbangan anak ( $\beta = -.49, p < .01$ ). Emosi dan keimbangan anak dipengantari sepenuhnya oleh keakraban hubungan ibu bapa-anak. Perkaitan antara anak yang suka bergaul dengan keimbangan dipengantari sepenuhnya oleh keakraban hubungan ibu bapa-anak. Kajian ini memberikan maklumat yang berguna tentang bagaimana temperamen anak mempengaruhi keimbangan anak menerusi hubungan ibu bapa-anak. Hasil kajian ini memberi sumbangan ke atas implikasi teori menerusi pemahaman yang lebih mendalam terhadap peranan temperamen anak dan hubungan ibu bapa-anak dan bagaimana pengaruhnya ke atas keimbangan anak, khususnya kanak-kanak di pusat penjagaan kanak-kanak. Dari segi implikasi praktikal, hasil kajian ini dapat membantu pihak yang berkaitan untuk mempunyai pemahaman yang lebih baik tentang keimbangan anak.



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I certify that a Thesis Examination Committee has met on 19 June 2017 to conduct the final examination of Low Biam Hong on his thesis entitled "Child Temperament, Child-Parent Relationship and Anxiety among Children in Childcare Centers in Urban Selangor, Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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## LIST OF ABBREVIATIONS

DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
NHMS	National Health and Morbidity Survey
JKM	Jabatan Kebajikan Masyarakat (Malaysia Welfare Department)
CPRS	Child Parent Relationship Scale
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, 4th Edition
SES	Social Economic Status
SAD	Separation Anxiety Disorder
ADHD	Attention Deficit Hyperactivity Disorder
SPSS	Statistical Package for the Social Sciences
PAS	Spence Preschool Anxiety Scales
CBCL	Child Behavior Checklist
EDA	Exploratory Data Analysis
VIF	Variance Inflation Factors
EMO	Emotionality
ACT	Activity
SOC	Sociability
SHY	Shyness
ANX	Child's Anxiety

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

Young children are in the process of making sense of the world around them. During their development of ability in reasoning and comprehending, they are in the midst of learning the difference between fantasy and reality (Richert & Smith, 2011). When children reach the age of 3 or 4, they are in the stage called intuitive, where they rely on what they see from their world view and it will affect a child's judgement to decide what is scary to them (Ma & Xu, 2011). Besides intuitive, animism is another characteristic development which happens in this period, which can make children difficult in differentiating between living and non-living objects (Huberty, 2004).

Anxiety can be defined as future-oriented emotion and is characterized as uncontrollable perceptions and unpredictability over potentially aversive events, and a fast shift in attention to the focus of potentially risky events or one's own emotional response to these events (Astrom, Wiberg, Sircova, Wiberg & Carelli, 2014). To be more practically defined, in children's point of view, it is the feeling of being afraid and out of control (Bothe & Olness, 2007). Children typically experience anxiety out of fear of the dark, monsters or costumed characters (Bothe & Olness, 2007). To be specific, children between the ages of 3 to 6 years old tend to fear animals, darkness, strangers, bodily harm and separation from parents (Gelfand & Drew, 2003). Anxiety can be ranged from very low levels to high levels and it may influence one's social, personal and academic performance (Rajchert, Zoltak & Smulczyk, 2013). However, almost all children experience anxiety and it is anticipated and common at specific times in development (Dorling, 2009).

The combined term of "fear or anxiety" has been used consistently in the DSM-5 on anxiety disorder section (American Psychiatric Association, 2013). Fear is seen as normal in childhood development (Muris & Field, 2010) as it can be inborn, learned or taught (Angold & Egger, 2006). The age of onset of anxiety disorder follows the developmental pattern of non-clinical fears, where persistent fears may develop into anxiety (Field & Davey, 2001).

Anxiety begins very young in life, when infants understand object permanence and when they have learned to form the attachment to parents, normal separation and stranger anxiety begins (Bothe & Olness, 2007). From approximately at the age of 8 months old through their preschool years, healthy children may show strong distress (anxiety) from separation with their parents or other familiar persons (Kerns, Siener & Brumariu, 2011). Separation anxiety or separation protest occurs in infants in childcare when parents drop them off at the childcare center when separation anxiety tends to

reach the peak at about 15 months (Parke & Gauvain, 2009). Typically, separation anxiety will be resolved by the age of two when the ability to separate from parent improves by that period. These developmental periods are critical as it indicates the progressive development of the cognitive (Huberty, 2004).

Based on previous studies in western countries, the prevalence of 2 to 5 years old children in the United States of America experience anxiety, depression or other mental illness is about 10% (Egger & Angold, 2006). Another study conducted in the United States also revealed that the prevalence of any anxiety disorder in children and youth was 6.5%, which approximately to 60,900 children and youth experience any of anxiety disorder (Waddell & Shepherd, 2002). Furthermore, anxiety disorder is the most common psychiatric disorders among Australian, German, Dutch and Americans, where the prevalence estimation of anxiety disorder range from 5.6 to 18.1% (Baumeister & Harter, 2007).

According to the National Health and Morbidity Survey (NHMS) in 2011, there are 1 million Malaysians aged 5 to 15 years old that are suffering from anxiety, stress and depression and is a mental health issue. Moreover, the issues of being prone to mental disorders among children showed an increased tendency from 1996 to 2011, from 13% in 1996 to 19.4% in 2006 and it reached 20% (1 million) in 2011 (Ministry of Health, 2013). Furthermore, according to the record by Childline Malaysia, the highest number of calls to the 15999 line from children (1,828 calls) was associated to feelings of being alone; fear and anxiety; lack of confidence; depression; physical appearance and suicide in 2011 (Child Rights Coalition Malaysia, 2012).

Healthy Mind in Handling Stress among Schoolchildren Programme headed by the Ministry of Health was in collaboration with the Ministry of Education from March to September 2011, and it revealed that 17.1% of students were suffering from severe anxiety out of the 6,540 students tested (Ang, 2011). These figures indicated that anxiety is the most common problem and disorder faced by Malaysian children. In comparing above figures with western countries, it showed that anxiety and other mental health problems suffered by Malaysian children are relatively high. Children below the age of seven are more susceptible compared to other age groups and their psychological issues may possibly progress into psychotic disorders in the future (Gelfand & Drew, 2003). However, the focus group in the past studies are children in general, and so anxiety among toddlers remain ambiguous especially in the context of Malaysia. Hence, it is important to carry a research to study anxiety among children between the ages of 3 to 6 in Malaysia to expand literature in the Asia context.

Children and teenagers are national assets and the worsening trend in the mental health among this group has gained the attention and concern of the government (Ministry of Health, 2013). The impact of anxiety can last for a long time, even across life spans as it will influence one's self-esteem (Goodman, Stroh & Valdez, 2012), socially and academically (Brumariu & Kerns, 2010). A large portion of anxious children are likely to continue their symptoms for many years or even develop anxiety disorder in their adulthood, building on their anxious experience that first began in their childhood

(Rapee, Schniering & Hudson, 2009). Childhood anxiety is also a marker for other mental health problems later on in life, such as depression (Schleider, Krause & Gillham, 2014) and significant internalizing disorder in later development (Goodwin, Fergusson & Horwood, 2004), impairment of social skills (Greco & Morris, 2002), school achievement (Huberty, 2004; Rajchert, Zoltak & Smulczyk, 2013), greater risk in lower quality friendships, negative peer group experiences, peer exclusion and victimization (Gazelle & Spangler, 2007), and suicide attempts (Vallance & Garralda, 2008). Nevertheless, it was estimated that 1.4 million of children with mental health issues in Malaysia did not receive adequate intervention services (Peters, 2010).

Therefore, it is important to study the factors that contribute to the development of child's anxiety. Despite a child's personal and family characteristics (Brakel, Muris, Bogels & Thomassen, 2006; Miller, Martinez, Shumka & Baker, 2013), previous studies showed that child's temperament (Hudson, Dodd & Bovopoulos, 2011) and child-parent relationship (Goodman, Stroh & Valdez, 2012) are the factors contributing to child's anxiety.

Temperament can be defined as individual's response to the environment (Parke & Gauvain, 2009). It partially appears during infancy and fully appears by preschool age (Zentner & Bates, 2008). Child's temperament is one of the significant factors that can cause a child's anxiety (Hudson, Dodd & Bovopoulos, 2011; Lindhout, Markus, Hoogendijk & Boer, 2009; Volbrecht & Goldsmith, 2010). Children with difficult temperaments tend to be shy and not adaptable to new people and environment, and so as a result, difficult children tend to have higher anxiety levels (Schultz, 2008) and less closeness with their parents (Scopesi, Viterbori, Sponza & Zucchinetti, 2004).

The study by Wood (2007) revealed that children with early close child-parent relationship had a lower level of anxiety. Ecological system theory by Bronfenbrenner (1979) indicated that the interaction with people play an important influential role in human development. Previous studies have proven that the influence of child-parent relationship is reflected on the development of anxiety (Brumariu, Kerns & Seibert, 2012; Goodman, Stroh & Valdez, 2012; Hudson, Dodd & Bovopoulos, 2011). In the point of view from Ecological system theory, child-parent relationship lies under the microsystem, which is the most influential level and it shows that child-parent relationship play a crucial role in influencing child's anxiety.

In Malaysia, many parents send their children for childcare service when they are at work (Pheng, 2007). The demand may reflect from the number of childcare centers in Malaysia, and based on the national record there were 1,395 registered childcare centers and approximately 7,000 childcare centers that have yet to register with the Ministry of Women, Family and Community Development (Department of Social Welfare Malaysia, 2012). Toddlers are in the midst of learning communication skills, and high child-to-staff ratio in childcare centers may overlook this demand which may result with worsening anxious children in distress and self-consciousness (Coplan & Arbeau, 2008). Besides that, as stated in ecological system theory, the direct contact of children in childcare centers (eg. the direct contact of a child with peers as well as a

child with caregiver) plays a significant role in a child's development. Hence, the current study is focused on children aged 3 to 6 years old in childcare centers to identify the level of their anxiety.

Furthermore, studies have found that the effect of child's temperament through child-parent relationship may contribute to child's anxiety. A child's inhibition as a temperament characteristic and child-parent relationship had interactive effect on child's anxiety (Hudson et al., 2010; Muris, Brakel, Arntz & Schouten, 2011).

In summary, a better understanding on child's anxiety is needed to prevent psychological disorders and negative outcomes. As mentioned earlier, there are many factors that influence child's anxiety. The present study only focuses on child's temperament, and child-parent relationship associated with child's anxiety among children in childcare centers in urban Selangor, Malaysia.

## **1.2 Statement of Problem**

Statement of problem in a scientific research outlines the problem that the study addresses: "what is the problem that the research will address" (Ellis & Levy, 2008). As mentioned in the previous section, child's anxiety may lead to several negative development outcomes; where most of the children may experience anxiousness in their childhood. The best way to study a behavioural outcome is to identify the root cause and there are several identified factors which contribute to a child's anxiety. Therefore, the major intend of the study is to determine the relationship between child's temperament, child-parent relationship and anxiety among children in childcare centers in urban Selangor, Malaysia.

This study is comprised of three main variables, which are child's temperament, child-parent relationship and child's anxiety. It is assumed that child's temperament and child-parent relationship play a significant predictive role on child's anxiety. Coplan and Arbeau (2008) found that children with shy temperament and who tend to be anxious particularly appear stressful in the transition to formal schooling. Rapee, Kennedy, Ingram, Edwards and Sweeney (2005) discovered that 90% of preschool children from the "extremely shy" group also met the diagnostic criteria for anxiety disorder. On the other hand, children with positive temperament characteristics are able to make more social contacts with their peers and also with their parents, which facilitate positive relationship with their peers and parents (Wilson & Durbin, 2012). The findings show that there is significant relationship between child's temperament, child-parent relationship and child's anxiety. During this critical development transition, characteristics of children who attend child-care center may not be notified by the caretakers due to the high child-to-staff ratio and this may indirectly increase the tendency of anxiety. As such, this study was designed to address the extent of child's temperament to child's anxiety among children in childcare centers in a local context.

Moreover, past studies have also identified significant effects of child-parent relationship on child's anxiety (Hudson, 2013; Kerns, Siener & Brumariu, 2011; Wood, 2007). Bowlby (1982) theorizes that floating anxiety may be caused by absence of a secure base from primary attachment figure. Conflicts in child-parent relationship have also been identified as a risk factor for the development of anxiety disorder in pre-schoolers, such as school phobia, separation anxiety and social anxiety (Kerns, Siener & Brumariu, 2011). Even though strong correlation was found from the above studies (Hudson, 2013; Kerns, Siener & Brumariu, 2011; Wood, 2007), they were focused on western parents and children. Hence, the current study would like to further explore the influence on child-parent relationship and child's anxiety among children in childcare centers in urban Selangor, Malaysia.

In terms of the connection of the variables, child's temperament served as independent variable in the present study, where child's anxiety is the dependent variable and child-parent relationship is the mediator that stands between independent and dependent variables. The relationship between child's temperament, child-parent relationship with child's anxiety is obvious. However, the association of these variables were rarely tested in the one model. For instance, some studies only focused on the correlation between child's temperament with child's anxiety, which underestimated the influence of child-parent relationship (Deyoung, 2011; Grant, Bagnell; Chambers & Stewart, 2009). As a result, the present study would fill in the research gap to further explore the relationship between child's temperament, child-parent relationship and child's anxiety.

In addition, the mediating role of child-parent relationship between child's temperament and anxiety that was tested in one model yet remains unexplored in the Malaysian context. A similar study conducted by Brakel and colleagues (2006) found that a higher level of behavioural inhibition, conflicts in child-parent relationship, maternal control and anxious maternal rearing were associated with higher levels of child's anxiety symptoms. Therefore, this study assesses the mediating effect of child-parent relationship in the relationships between child's temperament and anxiety in a sample of children in childcare centers in urban Selangor, Malaysia. In order to examine the contribution of these factors to child's anxiety, the present study was guided by Bronfenberenner's (1979) ecological system theory and Belsky's (1984) process model.

The essence of Bronfenberenner's ecological system theory is mainly on the relationship and interaction of an individual's surroundings and context, which subsequently influences the course of development. Five systems were introduced by Brofenberenner in ecological system theory, where child's temperament and child-parent relationship lie within the microsystem. The microsystem is the closest system to the individual and also the most influential level of the ecological system theory. The detailed description of the theoretical background of the study is presented in the subsequent section (refer Section 1.6).



In order to better understand the relationship between child's temperament, child-parent relationship and anxiety, the present study attempts to illuminate and elaborate on the relationship between these variables by considering mothers who have children in childcare centers in Malaysia within the age range of three to six years old as the unit of analysis. Furthermore, correlational design was selected as the specific type of strategy of inquiry to generalize the findings. Respondents were recruited by Multi-Stage Cluster sampling procedure. There were 319 mothers from randomly selected childcare centers in urban Selangor that participated in the current study.

In summary, the present study would be significant in exploring the relationship between child's temperament, child-parent relationship and anxiety among children in childcare centers in urban Selangor, Malaysia. The study also investigates the direct effect of the independent variables (i.e., child's temperament and child-parent relationship) on the dependent variable (i.e., child's anxiety), as well as the role of parent-child relationship as a mediator. A total of 319 respondents were involved in the study based on self-report responses. Last but not least, the study was guided by Bronfenbrenner's (1979) ecological system theory and Belsky's (1984) process model.

### **1.3 Significance of the Study**

Several significance of the study will contribute to the society at least in three aspects, namely: literature, practical and policy. In term of literature, the findings of this study would be able to explain the relationships between child's temperament, child-parent relationship and anxiety among children in childcare centers in urban Selangor, Malaysia. Relevant research on child's anxiety in Asian literature body is relatively limited and so the findings of this study will add knowledge into the Asian literature body. Furthermore, it is hopeful that this study would address the literature and knowledge gaps in the related field.

Moreover, other than the contributions on literature body, practically the information obtained from the present study may serve towards providing a baseline understanding of the factors that can contribute to child's anxiety. Anxious experiences first began from childhood (Rapee, Schniering & Hudson, 2009) and the result generated from the current study may reflect the present condition of child's anxiety among 3 to 6 years old children in childcare centers, and this will help the nation to better understand on child's anxiety for prevention. This study also makes available for the understanding of the importance relationships between child's temperament and anxiety.

The findings will enable mental health professionals, practitioners and educators to integrate the relationships between child's temperament and anxiety. This is useful when working with mothers or children as it explains how they interact and affect each other. The mediating effect of child-parent relationship between child's temperament and anxiety were explored in the present study. The findings will describe the role of child-parent relationship to strengthen or weaken the outcome on child's anxiety. The findings will be beneficial for practitioners who need to deal with children and parents

to link the possible factors and outcome on child-parent relationship in child's anxiety. Practitioners or relevant mental health professionals may organize workshops to improve child-parent relationships as an intervention on child's anxiety.

Last but not least, at policy level this study could serve as a reference for governments and policy makers. The authorities may find this study beneficial in their planning of programs to prevent child's anxiety. Additionally, practitioners who are involved in developing and implementing programs for family, parents and children may find the findings helpful. They may use findings from the present study to improve school settings as well as child's anxiety behaviour.

#### **1.4 Objectives of the Study**

The general and specific objectives of the study are stated in this section.

##### **1.4.1 General objective**

The general objective of this study is to determine the relationships between child's temperament, child-parent relationship and anxiety among children in childcare centers in urban Selangor, Malaysia.

##### **1.4.2 Specific objectives**

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

1. To describe the mother's characteristics (age, years of education, ethnicity and occupation), child characteristics (sex and age), family characteristics (number of children and family monthly income), child's temperament (emotionality, activity, sociability and shyness), child-parent relationship and child's anxiety.
2. To identify the relationships between mother characteristics (age and years of education), child characteristics (sex and age), family characteristic (number of children and family monthly income) with child's temperament (emotionality, activity, sociability and shyness), child-parent relationship and child's anxiety.
3. To determine the relationships between child's temperament (emotionality, activity, sociability and shyness), child-parent relationship and child's anxiety.
4. To determine the unique predictor of child's anxiety.
5. To determine the mediating role of child-parent relationship between child's temperament (emotionality, activity, sociability and shyness) and anxiety.

## 1.5 Hypotheses of the Study

In line with specific objectives (objective 3, 4 and 5), the hypotheses are formulated as following:

Objective 3: To determine the relationships between child's temperament (emotionality, activity, sociability and shyness), child-parent relationship and child's anxiety.

- H<sub>01</sub>: There is no significant relationship between child's emotionality temperament characteristic and child-parent relationship.
- H<sub>02</sub>: There is no significant relationship between child's activity temperament characteristic and child-parent relationship.
- H<sub>03</sub>: There is no significant relationship between child's sociability temperament characteristic and child-parent relationship.
- H<sub>04</sub>: There is no significant relationship between child's shyness temperament characteristic and child-parent relationship.
- H<sub>05</sub>: There is no significant relationship between child's emotionality temperament characteristic and anxiety.
- H<sub>06</sub>: There is no significant relationship between child's activity temperament characteristic and anxiety.
- H<sub>07</sub>: There is no significant relationship between child's sociability temperament characteristic and anxiety.
- H<sub>08</sub>: There is no significant relationship between child's shyness temperament characteristic and anxiety.
- H<sub>09</sub>: There is no significant relationship between child-parent relationship and child's anxiety.

Objective 4: To determine the unique predictor of child's anxiety.

- H<sub>10</sub>: Child's characteristics (sex and age), mother's characteristics (age and years of education), family characteristic (family total monthly income and number of children), child's temperament (emotionality, activity, sociability and shyness) and child-parent relationship do not significantly predict child's anxiety.

Objective 5: To determine the mediating role of child-parent relationship between child's temperament (emotionality, activity, sociability and shyness) and anxiety.

- H<sub>11</sub>: There is a significant mediating effect of child-parent relationship on child's emotionality and anxiety.
- H<sub>12</sub>: There is a significant mediating effect of child-parent relationship on child's activity and anxiety.
- H<sub>13</sub>: There is a significant mediating effect of child-parent relationship on child's sociability and anxiety.
- H<sub>14</sub>: There is a significant mediating effect of child-parent relationship on child's shyness and anxiety.

## 1.6 Theoretical Background of the Study

The purpose of the present study is to determine the relationships between child's temperament and child-parent relationship with anxiety among children in childcare centers in urban Selangor, Malaysia. The research conceptual framework developed in this part was assisted by profound theory and perspective. This study assumes that child's anxiety is the outcome of personal biological characteristic (i.e., child's temperament) and interrelation outcome with immediate system such as the family (i.e., child-parent relationship). For instance, the people closest to children are their family members, especially parents, and this is very important when interacting with the child as the interaction may influence on child's anxiety. Furthermore, teachers and caretakers in childcare centers play an important role in helping children to cope with their anxious behaviour when the child is separated from the parent. In summary, the present study is guided mainly on the human ecology frameworks, which emphasized that children's development is not only influenced by personal biological maturation but also the immediate environment and societal setting.

In Bronfenbrenner's ecological system theory (1979), he specifies the relationship and interaction with the people around may support the individual's daily activities. The development of individual always occurs in a context, which affects the course of development. Bronfenbrenner (1979) also described five systems which may affect the child's development, namely microsystem, mesosystem, exosystem, macrosystem and chronological system. The child's temperament and child-parent relationship that were identified to influence on child's anxiety lie within the microsystem.

Microsystem is the first level of ecological system theory and is the closest system to the individual that they have the direct contact with. For instances, home, school and childcare centers, and this also includes family, peers or caregivers. At this level, the relationships is bi-directional and the individual's responses to the people in microsystem will affect how they react in return, and therefore this is the most influential level of the ecological system theory. The present study is focused on the influence of child's anxiety by the child's temperament (biological characteristic) and child-parent relationship (interacting outcome with immediate system). Based on the concept of bi-directional influence on microsystem in ecological system theory, the child's temperament will have bi-directional influence on child-parent relationship; as a result, it will affect child's anxiety.

The mesosystem is the second level of the context, which consists of the interrelationship or interactions of the microsystem. In mesosystem, individual's microsystems do not function independently, however it is interrelated and can assert influence on one another. These connections have indirect influence on the individual. For example, the relationship between parent and teacher from childcare centers may influence the child's anxious behaviour. The relationship between parent-teacher may help teachers to better understand on child's anxiety. Child's anxiety does not happen at home only, and it may extend to childcare centers, or vice-versa, as such better communication between parents and teachers may help children to cope with anxious behaviour.

The exosystem refers to a setting in which the individual is not involved as an active role but can still affect them. The effect of the exosystem is impersonal and often indirect. This includes the decisions making process where the individual is not involved. The examples of exosystem are the relationship of parents and work place, parent's social network, extended family influences during family functions, the government's principles and teacher's work load. These social settings do not directly participate in child's anxiety, however indirect influence parent and teacher intervention on child's anxiety.

The fourth level of ecological system theory is the macrosystem that involves the culture and values of the child's life. This context includes the ethnicity and the country's policies and law. For instance, the country's policies and law may indirectly influence a child's development. Additionally, due to the cultural and value differences, western countries may treat child's anxiety differently when compared with Asian countries.

Lastly, the chronosystem includes the transitions and shifts in one's lifespan. Based on Bronfenbrenner's concept, the environment is ever-changing; the changes can be enforced on the individual's development, such as the birth of a sibling, starting school, moving to a new school or new neighbourhood and separation or divorce of parents. For an instance, a child changing to a new childcare center may take time to adjust to the new environment; the child would need to form new relationships with the teachers and friends in the new childcare center. This transition may trigger a child's anxious behaviours.

Children interrelate actively within these environmental contacts, and each context affects a child's perception, thought and behaviour in direct and indirect way. This may have results in their later life which can strengthen or weaken their development in life. In the present study, only the direct influence of the microsystem is being focused, and this was supported by numerous previous studies which showed that the characteristics of the child and mother, the child's immediate surroundings especially family and childcare center effectively influence their development (Abraham & Kerns, 2013; Deyoung, 2011; Hudson, 2013; Lombardi & Coley, 2014; Pereira, Barrod & Mendonca, 2013; Wilson & Durbin, 2012; Zhang, 2014). As a consequence, child's temperament characteristic and child-parent relationship were found to have an interactive effect on child's anxiety (Muris et al., 2010).

The factor for child's anxiety is not limited to one's interaction context only as parental behaviour on child's rearing may influence the child's behaviour outcome (Kerns, Siener & Brumariu, 2011). The Belsky process model (Belsky, 1984) emphasized on the processes of competent parental functioning. This model focused on the factors influencing parental behaviour and how these factors effect child-rearing, and how it influences child development outcomes. This model assumes that parenting is directly affected by parents (parent's individual personality), the child (child's characteristics) and also social context (parent-child relationship, marital relations, social networks and occupational experiences).

In terms of parent's contribution in this model, it could be influenced by an individual's characteristic and background. For instance, the individual's developmental history, personality (for instance, warm and attentive characteristics promote healthy socioemotional development environment to the child), age (maturity on rearing child), mental health and more. Belsky suggested that the most prominent determinants in supporting parental functioning are parental personality and psychological well-being. Even in the situation where two of three determinants are in the stressful level, parental personality and psychological well-being can still function and promote sensitive care to the child.

Whereas, the most influence on a child's characteristic is the child's temperament, especially the behavioural style that makes parenting more or less difficult. Difficult temperaments may undermine parental functioning, where parents are less responsive and have less interaction with an infant with a difficult temperament. However, in the situation, either one of two determinants is not at the risk level, so the child's characteristics are relatively easy to overcome.

Besides parent and child's characteristic, this model also stresses on the ecological perspective. In social context, social support on both psychological and physical health plays critical roles. In general, positive support can foster healthy psychological and physical health outcomes, and as a result is a positive parental function. In comparison with child characteristics on parental function, the influence of contextual subsystems of social support has a greater impact.

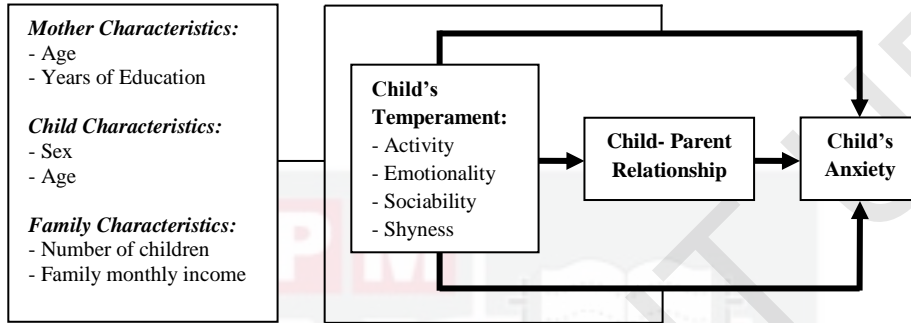
## **1.7 Conceptual Framework of the Study**

Based on the research objectives and theoretical background of the study, the conceptual framework of the current study is presented in Figure 1.1, it outline the mother characteristics, child characteristics, family characteristics, child's temperament are hypothesized to have significant relationship with anxiety among children in childcare centers in urban Selangor, Malaysia. Moreover, child-parent relationship will be the mediator variable in this study.

In essence, the conceptual framework was developed based on the human ecological framework. According to Bronfenbrenner's ecological system theory, the microsystem has a direct interaction with the children, thus it has the greatest impact on children's developmental outcome. Specifically, the child's temperament and child-parent relationship have a direct interaction with child's anxiety (Hudson, Dodd & Bovopoulos, 2011; Shamir-Essakow, Ungerer & Rapee, 2005).

The present study also assumed that the child-parent relationship could mediate the relationship between child's temperament with anxiety. This is based on the assumption that child-parent relationship is a mutual relationship between parents and child, and both parents and child play a crucial role in the formation of child-parent relationship (Pianta, 1997). According to Belsky's process model (Belsky, 1984), a

child's developmental outcome could be affected by the mutual result of parental behaviour and child rearing style. The nature of the child (the child's temperament) will influence the formation of child-parent relationship and this interaction may influence the child's development outcome, which include child's anxiety (Brumariu, Kerns & Seibert, 2012).



**Figure 1.1: Conceptual Framework: Child's Temperament, Child-parent Relationship and Child's Anxiety among Children in Childcare centers in urban Selangor, Malaysia.**

Furthermore, the relationship between a mother characteristics (age and years of education), child characteristics (sex and age) and family characteristics (number of children and family monthly income) in child's anxiety were supported by various previous studies (Miller et al., 2013; Piche, Bergeron, Cyr & Berthiaume, 2011; Vallance & Garralda, 2008). These findings showed that innate and physical environment factors significantly shape child's anxiety. Thus, the relationship between mother characteristics, child characteristics and family characteristics with child's temperament, child-parent relationship and anxiety will be discussed in this study.

## 1.8 Definition of Terminology

The conceptual definition and operational definition of various variables of this study are described in this part.

### 1.8.1 Child

#### Conceptual definition:

According to the Convention on the Rights of the Child (CRC), a child is defined as "Every human being below the age of 18 years unless under the law applicable under the child majority is attained earlier" globally (United Nations General Assembly, 1989). In Malaysia, under Malaysian Child Act 2001 or Act 611, a child refers to any person under the age of 18 years old (Laws of Malaysia, 2006).

Operational definition:

This study only focuses on children from the age of 3 to 6 years old, and this age group is within the age range of a child's definition of both Convention on the Rights of the Child (CRC) and Malaysian Child Act 2001. Hence, children in their ages of 3 to 6 years old are referred as a child in this study.

### **1.8.2 Child's Temperament**

Conceptual definition:

Temperament is the response of an individual to the environment, which includes activity level, adaptability to new situation and intensity of emotional expression (Parke & Gauvain, 2009).

Operational definition:

Child's temperament is measured with EAS Temperament Survey for Children (Buss & Plomin, 1984) which consists of four temperament dimensions: Emotionality, Activity, Sociability and Shyness. Higher scores indicate higher level of exhibits particular to temperament characteristics.

### **1.8.3 Child-parent Relationship**

Conceptual definition:

Child-parent relationship refers to the patterns of interaction, expectation, and beliefs between child and parent (Pianta, 1997).

Operational definition:

Child Parent Relationship Scale (CPRS) short form was chosen to measure child-parent relationship. The higher total score for closeness indicates a higher level of closeness in the child-parent relationship (Pianta, 1997).

### **1.8.4 Child's Anxiety**

Conceptual definition:

Anxiety refers to uncontrollable perceptions and unpredictability over potentially aversive events, and it is the feeling of being afraid and out of control (Bothe & Olness, 2007).

Operational definition:

Child's anxiety was measured by Spence Preschool Anxiety Scale, and the higher the total score, the higher level of exhibition of child's anxiety symptoms (Spence, Rapee, McDonald & Ingram, 2001).



### **1.8.5 Urban**

#### Conceptual definition:

According to Masron, Yaakob, Ayob and Mokhtar (2012), “urban” in Malaysia is defined as gazetted areas with their adjoining built areas which has a combined population of 10,000 and above.

#### Operational definition:

Sample of the current study was drawn from Batu Caves, Damansara and Kepong based on multi-stage cluster sampling method. These three sub-districts catered to a population of 10,000 and above respectively, which is in line with the definition of Masron and colleagues (2012).

### **1.9 Chapter Summary**

This chapter begins with the introduction of the study which discussed the background of the study, statement of the problem, significance of the study, objective of the study and research hypotheses. It was then followed by the discussion of the theoretical background of the study, conceptual framework of the study and definition of terminology. The following chapter will be discussing previous studies which is relevant to the present study.

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