



**UNIVERSITI PUTRA MALAYSIA**

***PERCEIVED PARENTAL ACCEPTANCE-REJECTION, EMOTION  
REGULATION AND SOCIO-BEHAVIOURAL AMONG ADOLESCENTS IN  
SELANGOR, MALAYSIA***

**MELISSA ONG YING SIM**

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**PERCEIVED PARENTAL ACCEPTANCE-REJECTION,  
EMOTION REGULATION AND SOCIO-BEHAVIOURAL ADJUSTMENT  
AMONG ADOLESCENTS IN SELANGOR, MALAYSIA**

**By**

**MELISSA ONG YING SIM**

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

**February 2017**

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

**PERCEIVED PARENTAL ACCEPTANCE-REJECTION, EMOTION REGULATION AND SOCIO-BEHAVIOURAL ADJUSTMENT AMONG ADOLESCENTS IN SELANGOR, MALAYSIA**

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**February 2017**

**Chair: Professor Rozumah Baharudin, PhD**  
**Faculty: Human Ecology**

Adolescents are faced with many challenges relating to adjustment to society, and they need support from the public at large in order to thrive as an adult. Indeed, escalating rates of mental health issues and social problems involving adolescents signify the need for all to have a comprehensive understanding of the factors contributing to adolescents' adjustment in the socio-behavioural domain, in order to improve adolescent functioning and society functioning as a whole. Based on postulates of the Bioecological Model and the Interpersonal Acceptance-Rejection Theory (IPARTheory), an adolescent's development is heavily influenced by the adolescent's parents, specifically in terms of their acceptance-rejection behaviours as perceived by the adolescent, where perceived parental acceptance tends to relate to positive child outcome, while perceived parental rejection often leads to negative child outcome. Whereas much research has been done to establish the relationship between perceived parental acceptance-rejection (PAR) and adolescent adjustment, important gaps exist in literature: 1) little is known of the mechanism that links PAR to adolescent adjustment; 2) limited research focused on the socio-behavioural aspect of adjustment; 3) limited similar studies have been conducted in Malaysia. The main aim of this study was hence to fill these gaps and uncover the mechanism that explains how PAR leads to adolescent socio-behavioural adjustment (SBA) by testing the merits of emotion regulation (ER) as a mediator in the relationship. The moderation effects of gender and family income were also examined to understand how the aforementioned relationships differ across subgroups in the population. In addition, differences and similarities between paternal and maternal PAR were examined. The sample consisted of 1,382 students drawn from 33

National Secondary Schools selected around Selangor, Malaysia, using the probability-proportionate-to-size (PPS) sampling method. Adolescent respondents (mean age = 14.5 years) completed self-report questionnaires which contained four measures: Parental Acceptance-Rejection Questionnaire (PARQ) for Father and Mother, Emotion Regulation Index for Children and Adolescents (ERICA), and Personality Assessment Questionnaire (PAQ). Analyses using Structural Equation Modelling (SEM) revealed that as predicted, Malaysian adolescents tended to adjust well socio-behaviourally when they perceived their parents to be accepting, and face socio-behavioural maladjustment when they perceive their parents to be rejecting, regardless of their gender or family income. Most importantly, a significant mediation effect of ER was found using the bootstrap method, indicating that when perceived parental acceptance is high, adolescents tend to be more emotionally regulated which leads them to have better SBA, regardless of their gender or family income. Additionally, examination of latent mean differences across paternal and maternal PAR revealed that adolescents generally perceive their fathers to be colder and more neglecting as compared to mothers. Comparing paternal and maternal PAR in terms of their association with adolescent SBA further showed that adolescents who perceive their mothers to be rejecting become worse off socio-behaviourally than adolescents who perceive their fathers to be rejecting, regardless of their competence in ER. Overall, findings of the present study contributes to our understanding on the pathway through which PAR relates to adolescent SBA via ER, and further provides policy makers and practitioners alike with insights on the factors contributing to adolescent SBA.

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

**PERSEPSI PENERIMAAN-PENOLAKAN IBU BAPA,  
REGULASI EMOSI, DAN PENYESUAIAN SOSIO-TINGKAH LAKU  
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Remaja berhadapan dengan banyak cabaran berkaitan dengan penyesuaian kepada masyarakat, dan mereka memerlukan sokongan daripada orang ramai untuk berkembang maju sebagai orang dewasa. Sesungguhnya, kadar peningkatan masalah kesihatan mental dan masalah sosial yang melibatkan remaja menandakan keperluan seluruh masyarakat untuk memahami faktor-faktor yang menyumbang kepada penyesuaian remaja dari aspek sosio-tingkah laku, untuk meningkatkan fungsi remaja dan fungsi masyarakat. Berdasarkan postulat Model Bioecologi dan Teori Penerimaan-Penolakan Interpersonal (IPARTheory), pembangunan remaja banyak dipengaruhi oleh ibu bapa remaja, khususnya dari segi tingkah laku penerimaan-penolakan mereka seperti yang dianggap oleh remaja, di mana penganggapan penerimaan ibu bapa sering dikaitkan dengan hasil positif dalam remaja, manakala penganggapan penolakan ibu bapa sering membawa hasil negatif kepada remaja. Sedangkan banyak kajian telah dilakukan untuk mengkaji hubungan antara persepsi penerimaan-penolakan ibu bapa (PPIB) dan penyesuaian remaja, terdapat jurang-jurang penting yang wujud dalam literatur: 1) Tidak banyak yang diketahui mengenai mekanisme yang menghubungkan PPIB dan penyesuaian remaja; 2) Penyelidikan yang tertumpu pada aspek penyesuaian sosio-tingkah laku adalah terhad; 3) tidak banyak kajian yang sama yang telah dijalankan di Malaysia. Dengan itu, tujuan utama kajian ini adalah untuk mengisi jurang-jurang ini dan mengkaji mekanisme yang menerangkan bagaimana PPIB membawa kesan kepada penyesuaian sosio-tingkah laku remaja (PST) dengan menguji merit regulasi emosi (RE) sebagai mediator dalam hubungan tersebut. Peranan jantina dan pendapatan keluarga sebagai moderator juga dikaji untuk memahami

bagaimana hubungan tersebut berbeza dari satu kumpulan ke kumpulan lain dalam populasi yang dikaji. Di samping itu, perbezaan dan persamaan antara PPIB bapa dan ibu telah dikaji. Sampel kajian terdiri daripada 1,382 orang pelajar yang diambil daripada 33 buah Sekolah Menengah Kebangsaan terpilih di sekitar Selangor, Malaysia, dengan menggunakan kaedah persampelan kebarangkalian berkadar-ke-saiz (PPS). Responden-responden remaja (purata umur = 14.5 tahun) mengisi borang kaji selidik laporan sendiri yang mengandungi empat instrumen: Skala Penerimaan-Penolakan Ibu Bapa (PARQ) untuk Bapa dan Ibu, Indeks Regulasi Emosi untuk Kanak-kanak dan Remaja (ERICA), dan Skala Penilaian Personaliti (PAQ). Seperti yang dijangkakan, analisis menggunakan Structural Equation Modelling (SEM) menunjukkan bahawa remaja-remaja di Malaysia cenderung menyesuaikan sosio-tingkah laku diri dengan baik apabila mereka merasai penerimaan daripada ibu bapa, dan turut menghadapi kesusahan dalam penyesuaian sosio-tingkah laku apabila mereka menganggap ibu bapa sebagai menolakan, tanpa mengira jantina atau pendapatan keluarga. Yang paling penting, dengan menggunakan kaedah bootstrap, kesan pengantaraan (mediator) RE telah didapati. Ini menunjukkan bahawa apabila persepsi penerimaan ibu bapa tinggi, remaja akan dapat menguruskan emosi diri dengan baik, yang membawa kesan baik dalam PST remaja, tanpa mengira jantina atau pendapatan keluarga. Selain itu, pemeriksaan perbezaan antara PPIB bapa dan ibu menunjukkan bahawa bapa-bapa dianggap sebagai lebih dingin dan lebih mengabaikan berbanding dengan ibu-ibu antara remaja. Perbandingan PPIB bapa dan ibu dari segi hubungan kedua-dua faktor dengan PST remaja turut menunjukkan bahawa remaja yang menganggap penolakan daripada ibu-ibu menjadi lebih teruk dalam PST berbanding dengan remaja yang menganggap penolakan daripada bapa-bapa, tanpa mengira kecekapan mereka dalam RE. Secara keseluruhan, hasil-hasil kajian ini membawa sumbangan kepada pemahaman kita tentang laluan yang mana PPIB berkait dengan PST remaja melalui RE, dan selanjutnya menyediakan pembuatdasar dan pengamal-pengamal dengan pengetahuan tentang faktor-faktor yang menyumbang kepada PST remaja.



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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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## LIST OF ABBREVIATIONS

AR	Acceptance-rejection
AVE	Average variance extracted
BC	Bias-corrected
CFA	Confirmatory factor analysis
CFI	Confirmatory Fit Index
Child PAQ	Personality Assessment Questionnaire (Child version)
Child-PARQ-SF	Parental Acceptance-Rejection Questionnaire – Short Form (Child version)
CI	Confidence interval
EFA	Exploratory factor analysis
ER	Emotion regulation
ERICA	Emotion Regulation Index for Children and Adolescents
IPARTheory	Interpersonal Acceptance-Rejection Theory
K-S	Kolmogorov-Smirnov
LB	Lower bound
MI	Modification Indices
ML	Maximum likelihood
NNFI	Nonnormed Fit Index
PAR	Perceived parental acceptance-rejection
PMAR	Perceived maternal acceptance-rejection
PPAR	Perceived paternal acceptance-rejection
Q-Q	Quantile-quantile
RMSEA	Root mean square error of approximation
SBA	Socio-behavioural adjustment
SEM	Structural equation modelling
TLI	Tucker-Lewis Index
UB	Upper bound
VIF	Variance inflation factor

# CHAPTER 1

## INTRODUCTION

This first chapter introduces the background and fundamentals of the current study, including the presentation of the statement of problem, purpose of study, research questions, research objectives, hypotheses, theoretical framework, conceptual framework, significance of study, and definition of terminology. The chapter concludes with a section describing the organization of chapters in this thesis.

### 1.1 Background of Study

The youth are our future, but they are also our present. Adolescents are faced with many challenges and they need support from the society at large in order to thrive as an adult. Gordon (1931) posits that an individual's future is fundamentally dependent on their success or failure in the quest to adjust to society during adolescence. In fact, many problems that arise during adolescence are problems relating to adjustment to society. This quest of 'social adjustment' describes an adjustment between two sides of a dichotomy represented by the adolescents' self, and the world around them (Gordon, 1931). A failure in balancing the conflicting needs of 'self' and 'others' leads to socio-behavioural maladjustment, manifested in the forms of mental health problems, social ills, troubles in school, and so on. In other words, it is essential that adolescents - who are our hope and future - are well-adjusted socio-behaviourally, and hence well-functioned in societies.

Indeed, the escalating rates of mental health and social problems involving adolescents signify the need for societies to address any issues pertaining to adolescents' adjustment in the socio-behavioural domain. In Malaysia, criminal cases involving juvenile offenders rose by a shocking 111% in the span of a year. According to statistics issued by the Royal Malaysia Police (RMP), a total of 7,816 cases were recorded in 2013 compared to 3,700 cases in 2012. In fact, figures of serious crimes among youth between the ages of 12 to 17 years recorded an increase of about 47% across the country in 2013 ("myMetro", 2015). In terms of mental health, 34.7% of Malaysians aged between 16 to 19 years reported to be struggling with mental health problems - the age group with the highest prevalence among those aged 16 and above (Ministry of Health Malaysia [MOH], 2015). Among Malaysians aged 10 to 15 years, 11.4% of them were reported to have mental health problems, including emotional problems (15.9%), conduct problems (16.8%), peer problems (31.5%), and pro-social skills deficiency (11.5%)(MOH, 2015). In a recent press interview, Tan Sri Lee Lam Thye, member of the Malaysian

Mental Health Advisory Council warned that the increasing trend of mental health problems among students, with figures doubling from one in 10 individuals in the year 2011 to one in five in the year 2016, is highly worrying (Lim, 2017).

Taken together, these statistics serve as red flags signaling the deterioration in mental health and increase in social problems among adolescents in Malaysia. Key steps must hence be taken to rectify these issues by improving adolescents' socio-behavioural adjustment, which will subsequently improve adolescent functioning and society functioning as a whole. To effectively achieve this goal, a comprehensive understanding of the correlates of, and the factors contributing to adolescents' adjustment in the socio-behavioural domain is imperative.

According to the Ecological Systems Theory developed by Urie Bronfenbrenner (1992), institutions and groups in the 'microsystem' is the closest to an individual and exerts the most influence on the individual's development. The microsystem, consisting of the individual's family, school, peers, neighbourhood, and so on are thus major elements that can impact an adolescent's socio-behavioural adjustment. Another key determinant is none other than the adolescent's self. In Bronfenbrenner's revised theory - the Bioecological Model (2006), personal characteristics are deemed to be significantly influential in the complex interactions between the five ecological systems and subsequently one's developmental outcome. Furthermore, as Albert Bandura posits in his Social Cognitive Theory (1978), the environment and individual's cognition are key factors influencing the individual's behaviour (and vice versa), and these three factors influence development in a triadic reciprocal relationship. In other words, adolescents should not be seen as mere products of the environment, but as active agents causing change in their development as well. Therefore, individual factors should be considered in an attempt to understand the major factors contributing to adolescent's socio-behavioural adjustment in a more comprehensive manner. Both environmental and individual factors that are of interest in this research are presented next.

There is no denying that one of the closest and most influential people in an adolescent's life are parents. Parents' behaviours and attitudes greatly influence their offspring's adjustment outcome, whether directly (via intentional parenting practices) or indirectly (via modelling, emotional climate at home, and so on). Contrary to popular belief, older children and adolescents still 'model' or imitate their parents' behaviour via regular 'social referencing', especially in novel situations to gain information on possible responses (Morris, Silk, Steinberg, Myers, & Robinson, 2007; Saarni, Mumme, & Campos, 1998). Furthermore, parents' attitudes and behaviours create an

emotional climate in which their children may be positively or negatively impacted.

Indeed, substantial research has been done throughout the world to investigate the association between various parental behaviours and attitudes and vast aspects of child outcome. Such parental behaviours/attitudes include parental warmth (e.g., E. Kim, 2008; Uddin, 2011), control (e.g., Mogro-Wilson, 2008; Shek, 2007), discipline (e.g., Alegre & Benson, 2010), differential parenting (e.g., Meunier, Bisceglia, & Jenkins, 2012) and so forth. Domains of child outcomes studied range from various aspects of adjustment including depression (e.g., Handa, Ito, Tsuda, Ohsawa, & Ogawa, 2009), self-esteem (e.g., Daemi & Janbozorgi, 2011), and externalizing behaviours (e.g., Bailey et al., 2012) to clinical problems (e.g., Vajda & Láng, 2014) and academic outcomes (e.g., Gordon & Cui, 2012; Nyarko, 2007). A particular parenting construct that has gained reasonable interest among researchers in the past few decades is parental acceptance-rejection. Parental acceptance is similar to parental warmth, where there is a display of affection and concern, a providence of support and nurturance, or simply an expression of love from parents to their children. Parental rejection, on the other hand, is the absence of these behaviours and the presence of hurtful behaviours such as aggression and neglect.

While parental acceptance-rejection can be studied from either the 'phenomenological perspective' (as perceived or subjectively experienced by the child) or the 'behavioural perspective' (as reported by an observer) (Rohner, Khaleque, & Cournoyer, 2011), the former perspective appears to represent a superior source of information as compared to the latter. This is true because an observer might not be able to detect any telltale signs of parental rejection, but a child may still feel unloved. On the other hand, observers might report of severe parental neglect (categorized as a form of parental rejection) but the child might not feel the same way (Rohner et al., 2011). As Kagan (1978) puts it, "parental rejection is not a specific set of actions by parents but a belief held by the child" (p. 61). Moreover, adolescents' adjustment may in fact be more related to their *perception* of their parents' behaviours rather than the actual behaviours shown (Schaefer, 1965). For this reason, the current research employed the phenomenological perspective in the inquiry of parental acceptance and rejection, referred to as perceived parental acceptance-rejection.

Perceived parental acceptance-rejection has been linked to a myriad of child and adolescent adjustment outcomes in various parts of the world. Countless cross-cultural research have shown that perceived parental rejection leads to psychological maladjustment such as hostility, impaired self-esteem, emotional instability, and negative worldview (Rohner et al., 2011). Several



mental health issues have also surfaced as correlates of perceived parental acceptance-rejection, including clinical and non-clinical depression (e.g., Greenberger, Chen, Tally, & Dong, 2000; Handa et al., 2009), conduct problems (e.g., Rohner, Parmar, & Ibrahim, 2010), borderline traits (e.g., Rosenbach & Renneberg, 2014), and substance abuse (e.g., Coombs, Paulson, & Richardson, 1991) (Rohner & Britner, 2002).

Beyond parental factors, individual factors are major determinants of adolescents' socio-behavioural adjustment and wellbeing. Of interest among researchers recently is the role of emotion regulation in impacting children and adolescents' adjustment in various domains. Studies suggest the importance of children regulating emotional responses in adaptive ways for their successful development (Denham, 1998). Indeed, children's emotion-related self-regulation has been found to be related to many facets of their development (Eisenberg, Spinrad, & Eggum, 2010). Emotion regulatory skills are regarded as essential capabilities that either foster positive adjustment outcomes or bring about maladjustment in children, partly depending on the biological, dispositional, and social resources accessible to them (Eisenberg et al., 2010). Burgeoning research have demonstrated how emotion regulation is related to various maladjustment indices in children, including internalizing and externalizing behaviours (Eisenberg et al., 2010; Eisenberg et al., 2005), school adjustment and academic achievement (Lee et al., 2012), and aggression (Chang, Schwartz, Dodge, & McBride-Chang, 2003).

Nonetheless, many of these studies focused on younger children, despite the common belief that adolescence is a time of 'storm and stress'. It is sometimes suggested that as children move into adolescence, they tend to have a stronger relationship with their peers as compared to their parents, as more time is spent with their peers rather than with their parents. This leads to a proposal that parents tend to lose their influence on children's adjustment as they step into adolescence. However, as Lashbrook (2000) stated, peers do not replace parents as children grow up to be adolescents. While adolescents might be prone to spend more time with their peers, confide in peers, and be influenced by peers, it does not negate the fact that adolescents are still strongly impacted by their parents' behaviour. Additionally, adolescence is a period of transition marked by frequent and intense emotional experience, and increase in the occurrence of various psychopathology including externalizing and internalizing disorders (Silk, Steinberg, & Morris, 2003). Besides, it is during adolescence that many hormonal, neural, cognitive, and emotional systems appear to mature (Spear, 2000). In fact, adolescence has been said to be a period characterized by an increase in emotion regulation (Allen & Sheeber, 2008). Given the vital role that emotion regulation plays in adolescents' lives and the stark juxtapose with scarcity of research focusing on adolescents' emotion regulation, it is imperative that researchers examine the impact of adolescents' emotional

regulatory abilities on their adjustment, specifically in the socio-behavioural domain.

Thus far, research that seeks to empirically answer the question of *how* children become maladjusted in various domains in the face of perceived parental rejection is limited. On the flip side of the coin, very few research has been done to investigate the *pathway* through which perceived parental acceptance provides a good basis for children to adjust well in life. The Interpersonal Acceptance-Rejection Theory (IPARTheory, formerly known as Parental Acceptance-Rejection Theory, PARTheory; Rohner, 2005), proposes a mediational model where 'self, others, and context risk factors' mediate the relationship between perceived both parental acceptance-rejection and child developmental outcomes, illustrating that the 'self' or individual factors of adolescents potentially explain the mechanism through which parental acceptance-rejection links to adolescents' socio-behavioural adjustment. It seems tenable to propose that a potential mediating factor explaining the pathway through which parental acceptance-rejection relate to adolescent socio-behavioural adjustment is emotion regulation of the adolescent.

Indeed, several studies have placed emotion regulation (studied as 'constructive coping', 'effortful control', and so on) as a mediating factor between parental behaviour and child adjustment (e.g., Bynum & Brody, 2005; Eisenberg et al., 2004; Eisenberg et al., 2003; Eisenberg et al., 2005). Most theorists agree that emotional regulation is shaped from experiences in children's social world, in which their parents are a part of (Campos, Campos, & Barrett; Gottman et al.; Rothbart & Bates; as cited in Eisenberg et al., 2005). Through frequent interactions with their parents, children acquire emotion regulatory skills via scaffolding by their parents or modelling of their parents' emotion regulatory behaviours. Therefore, parental behaviours can either promote or confound child emotional regulation, which is in turn related to child adjustment as illustrated in several studies (e.g. Eisenberg et al., 2003; Eisenberg et al., 2005; Vajda & Láng, 2014). With respect to perceived parental acceptance-rejection, limited studies have attempted to show a mediating relationship between perceived parental acceptance-rejection, emotion regulation, and adjustment outcomes (discussed further in Chapter 2). However, these studies again focused on younger children rather than adolescents, indicating the need for this study to clarify the mediating relationship between perceived parental acceptance-rejection and adolescent socio-behavioural adjustment via adolescent emotion regulation.

Interestingly, a study by Lagacé-Séguin and Coplan (2005) examined aspects of child regulation (including emotion regulation) as a moderator in the relation between maternal emotional style of parenting and child's social adjustment. The researchers found that the relationship between maternal



emotional style (defined as parents' awareness of their own emotions and the usage of this awareness in the socialization of their children) and child's social adjustment differed for emotionally regulated versus emotionally dysregulated children (Lagacé-Séguin & Coplan, 2005). The moderating role of emotion regulation in the association between parental behaviour and child adjustment in this study presents a discrepancy on the role of emotion regulation in literature.

While it appears logical to propose that emotion regulation of children might moderate the relationship between parental behaviour and child adjustment, the role of emotion regulation seems to be more suited as a mediator in the aforementioned relationship. As Baron and Kenny (1986) put it, a mediator is a variable that explains "how external physical events take on internal psychological significance" (p. 1176) - and emotion regulation is one such internal psychological process. As a mediator, emotion regulation would explain 'how' perceived parental acceptance-rejection affects adjustment, rather than 'when' the effects will hold, which is the role of a moderator (Baron & Kenny, 1986). More directly, it seems more reasonable to suggest that emotion regulation is a variable that explains the *mechanism* through which perceived parental acceptance-rejection relates to child adjustment, rather than one that simply affects the strength of this relationship. In other words, emotion regulation explains the pathway through which perceived parental rejection relates to the unhealthy adjustment of children, and in the same vein illustrates how accepted children are well adjusted in life. Furthermore, the fact that literature supports the notion that perceived parental acceptance-rejection predicts emotion regulation, which in turn predicts adjustment strengthens the plausibility of this mediation model.

Our understanding of the interplay of relationships between perceived parental acceptance-rejection, adolescent emotion regulation and adolescent socio-behavioural adjustment will not be comprehensive if the relationships are not tested across vital personal and familial characteristics of adolescents. Several studies have reported gender differences in the relation between perceived parental acceptance-rejection and adolescent adjustment. For example, one study revealed significant gender differences in the relation between perceived parental rejection and various problem behaviours (Akse, Hale, Engels, Raaijmakers, & Meeus, 2004). This presents gender as a possible moderator in the direct and indirect association between perceived parental acceptance-rejection and adolescent socio-behavioural adjustment via emotion regulation. An examination of this moderating effect will reveal potential differences in the study of the factors influencing socio-behavioural adjustment of adolescents of either gender.

In terms of familial characteristics, some research reported differences in the relationship between parental acceptance-rejection and child behavioural outcomes across family structure variables such as family size and socioeconomic status (SES) (Rohner & Britner, 2002). As escalating evidence suggests the link between SES and psychological health among youths (American Psychological Association [APA], n.d.), and given that familial characteristics are closely related to parenting behaviour and adolescent adjustment, it is imperative that researchers pay attention to the potential confounding effect that such variables as SES might have in studies of the parenting and child adjustment link. Instead of using SES which is a multifaceted variable made up of several variables such as parents' age, parents' educational levels, and family economic levels, it is perhaps useful to simply study the moderating effect of certain specific variables as proxies for SES. Family income, which is part of SES is a more specific family structure variable that could present itself as a moderator in the relationship between parental acceptance-rejection, emotion regulation, and adolescent socio-behavioural adjustment, and its interaction with these variables should be investigated.

In short, there is a crucial need for researchers to pool effort in promoting our understanding of factors influencing adolescent socio-behavioural adjustment and subsequent functioning, as well as to counteract the paucity of research in this area for the benefit of academicians and practitioners alike. Specifically, the direct and indirect link between perceived parental acceptance-rejection, adolescent emotion regulation, and adolescent socio-behavioural adjustment needs to be clarified and further distinguished between adolescents of different gender and family income.

## **1.2 Statement of Problem**

A statement of problem delivers the overall intent and central idea of a study, consisting of elements such as key objectives and variables of the study, relationship between the variables of interest, theoretical framework, strategy of inquiry, unit of analysis, and definition of terminologies (Creswell, 2009). This section will cover all the aforementioned components except for definition of terminologies (refer to Section 1.11 Definition of Terminology).

The major intent of the current research is to illuminate the relationships between perceived parental acceptance-rejection (PAR), adolescent emotion regulation (ER), and adolescent socio-behavioural adjustment (SBA). Referring to the discussion above, the rate of increase in social problems and mental health issues involving adolescents is worrying, indicating that adolescents' SBA is in jeopardy. Research seeking to improve adolescents' SBA should hence be prioritized in order to increase adolescents' functioning

and subsequently society functioning as a whole. Hence, this study was designed to examine the interplay of relationships between perceived PAR, ER, SBA, gender, and family income in an effort to inform academicians and other stakeholders to be better able promote adolescent SBA.

The theoretical framework that guides this study is a combination of Rohner's Interpersonal Acceptance-Rejection Theory (IPARTheory) and Bronfenbrenner's Ecological Systems Theory. According to the Ecological Systems Theory, an individual's development is contextual in that it is dependent on five environmental systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. On the other hand, the IPARTheory posits that children who perceive their parents to be accepting of them would turn out to be well-adjusted while children who perceive their parents to be rejecting of them would turn out otherwise. Together, both these theories suggest that an adolescent's development is heavily influenced by the adolescent's parents, specifically in terms of their acceptance behaviours towards the adolescent. Further discussions on the theories guiding this study can be found in later sections (refer to Section 1.8 Theoretical Framework and Chapter 2 Literature Review).

The key variables in this study are perceived parental acceptance-rejection (PAR), adolescent emotion regulation (ER), and adolescent socio-behavioural adjustment (SBA). PAR, examined separately for fathers (paternal PAR) and mothers (maternal PAR) are the predictors while SBA is the criterion or dependent variable in this study. Besides the direct PAR-SBA link, ER acts as the mediator in the indirect PAR-SBA link, where it is predicted by paternal / maternal PAR on one end and predicts SBA on the other. Other variables included in this study are the moderators to the aforementioned direct and indirect relationships: adolescent gender and family income. As discussed before, it is crucial that our understanding of the factors influencing adolescent SBA are well-developed for greater effectiveness in tackling the social and mental health issues plaguing adolescents. Including a mediator and two moderators in the study of the PAR-SBA link will ensure that this goal is achieved.

In order to increase the applicability of research findings to better promote adolescent SBA, increasing generalizability of this study is of great importance. With the implementation of a quantitative research which enables high generalization of study results, this objective can be met. The specific strategy of inquiry employed is survey, and the nature of this research is cross-sectional. Using a multistage cluster sampling method known as the probability-proportionate-to-size (PPS) sampling, a large sample was drawn from the population of school-going adolescents in the state of Selangor, Malaysia. The adolescent is chosen as the unit of analysis

mainly on the basis that adolescent crime rate has seen a stark increase, while mental health among adolescents has seen a sharp decline in recent years. In terms of the research site, the state of Selangor consists of a higher concentration of urban population in which are more likely to have higher juvenile crime rates ("The Malaysian Digest", 2014). Indeed, Selangor being the most populated and most developed state in Malaysia (Selangor State Government, 2013) is bound to present challenges such as congestion, pollution, unemployment, and high crime rates to its inhabitants (Yaakob, Masron, & Masami, 2012). With such overwhelming and acute environmental demands, one could face high levels of stress (Lederbogen, Haddad, & Meyer-Lindenberg, 2013). As a result, parenting quality could be compromised due to lower parental psychological functioning (White, Roosa, Weaver, & Nair, 2009), while child coping abilities and adjustment could be adversely affected (Evans & Kim, 2012). Despite that, this particular state has a mix of urban and rural areas, and was hence chosen in order to provide diverse data concerning adolescents of various family income levels in Malaysia. These considerations, coupled with reasons of feasibility and time constraints motivated the decision for Selangor, Malaysia to be chosen as the research site of this study. To analyze the wealth of data collected, Structural Equation Modelling (SEM) was employed as the data analysis method to study the complex relationships between the variables of interest.

In a nutshell, this research was set out to understand and clarify the interplay of relationships between perceived PAR, adolescent ER and SBA, as well as adolescent gender and family income. It was expected that perceived PAR will predict both ER and SBA, while ER will predict SBA as a mediator in the PAR-SBA link. These relationships were hypothesized to be moderated by adolescent gender and family income. With an ultimate purpose to inform practitioners and stakeholders alike in the curbing of juvenile crimes and worsening mental health in adolescents, this research had chosen to sample school-going adolescents in the diverse state of Selangor in Malaysia. This cross-sectional survey research utilized the PPS sampling method to recruit participants and the SEM method to analyze collected data.

### **1.3 Purpose of Study**

The main aim of the current study was to examine the direct and indirect relationships between perceived PAR (paternal and maternal) and adolescent SBA via ER, as well as the moderating effects of gender and family income on the aforementioned relationships. Additionally, the differential impact of perceived PAR across fathers and mothers in the context of adolescent SBA was investigated. Accordingly, the similarity and/or differences in paternal and maternal perceived PAR was also examined. This research was carried out among adolescents in secondary schools in Selangor, Malaysia.



## **1.4 Research Questions**

The current research endeavored to answer the following questions to achieve its objectives:

- 1) How is perceived paternal PAR different from perceived maternal PAR?
- 2) Do perceived paternal and maternal PAR predict adolescent SBA?
- 3) Does adolescent ER mediate the relationship between perceived paternal / maternal PAR and adolescent SBA?
- 4) Do adolescent gender and family income moderate the direct and indirect relationships(via ER) between perceived paternal/ maternal PAR and adolescent SBA?
- 5) What are the similarities and differences between perceived paternal and maternal PAR in their association with adolescent SBA?

## **1.5 Research Objectives**

In accordance with the research purpose and questions outlined above, the current study aimed to achieve several specific objectives:

- 1) To test the measurement invariance and compare latent mean differences of perceived PAR across fathers and mothers.
- 2) To establish the relationship between perceived PAR and adolescent SBA.
- 3) To test the merits of adolescent ER as a mediator in the relation between perceived paternal / maternal PAR and adolescent SBA.
- 4) To investigate the moderating effects of gender and family income on the association between perceived PAR, ER, and SBA.
- 5) To examine the similarities and differences between perceived paternal and maternal PAR in their association with adolescent SBA.

## **1.6 Research Hypotheses**

The present study attempted to test the following hypotheses formulated based on the specific objectives outlined above, derived from findings of past research:

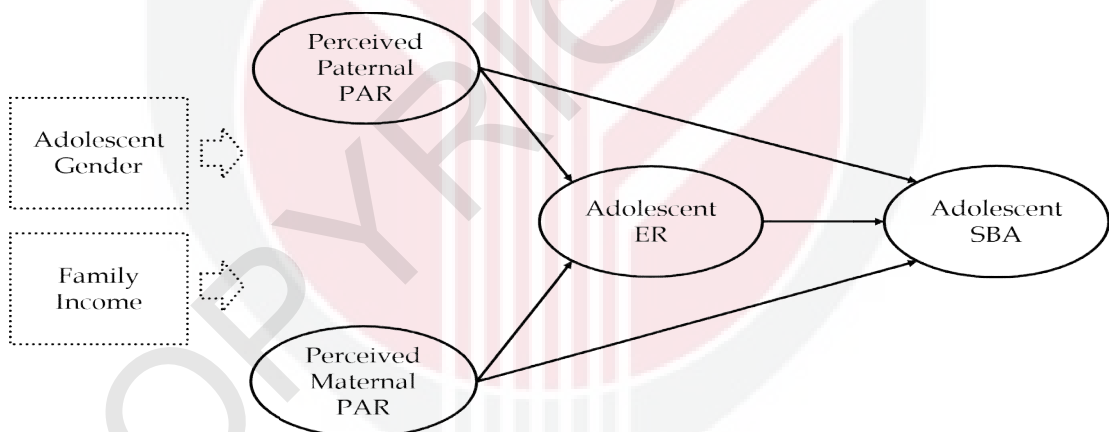
- 1) There will be a significant difference between perceived paternal and maternal PAR.
- 2) Perceived paternal and maternal PAR will be significantly related to adolescent SBA, such that higher perceived paternal / maternal rejection will be associated with higher adolescent maladjustment.
- 3) Adolescent ER will significantly mediate the relation between perceived paternal / maternal PAR and adolescent SBA. ER is

expected to relate positively to perceived paternal and maternal acceptance, as well as SBA.

- 4) (a) Adolescent gender will moderate the direct and indirect relationships between perceived paternal /maternal PAR, ER, and SBA.  
(b) Family income will moderate the direct and indirect relationships between perceived paternal /maternal PAR, ER, and SBA.
- 5) There will be a significant difference between perceived paternal and maternal PAR in their association with adolescent SBA.

## 1.7 Hypothetical Model

The hypotheses of this study are illustrated in a hypothetical model as shown in Figure 1.1. The predictors, perceived paternal and maternal PAR, are hypothesized to significantly predict the criterion, adolescent SBA. Both predictors will also predict the mediator, adolescent ER, which in turn predicts the criterion. On the left, adolescent gender and family income are observed variables hypothesized to be moderating the above direct and indirect paths. Based on collected data, this hypothetical model was subsequently tested for its fit using structural equation modeling (SEM).



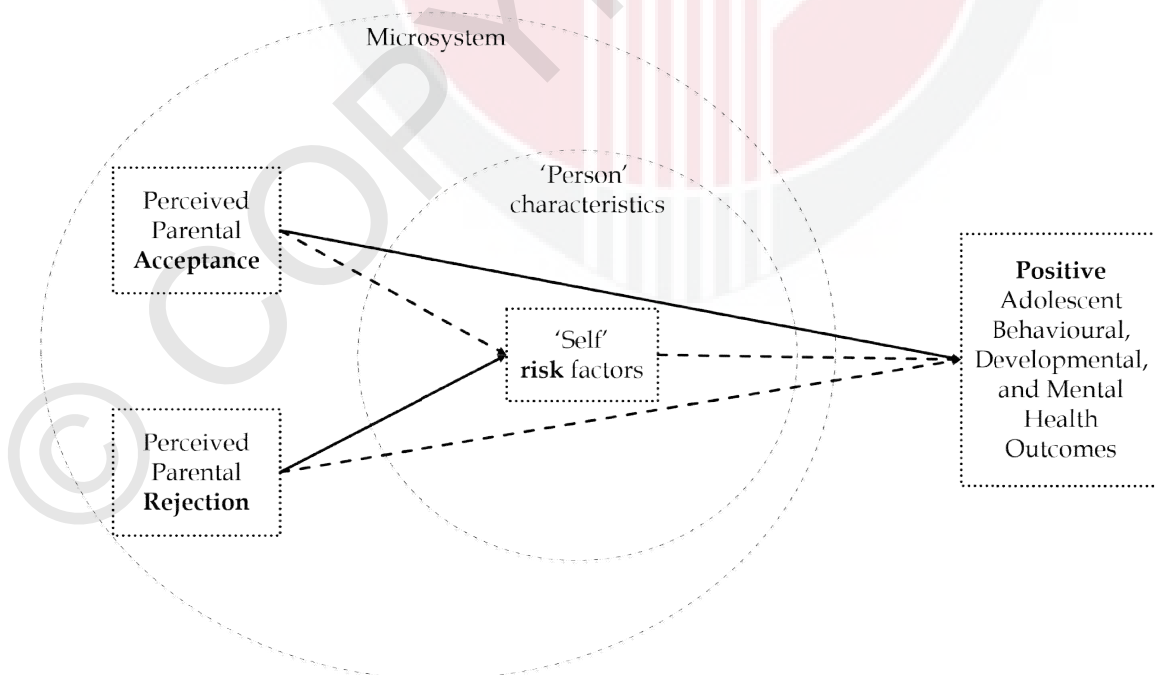
**Figure 1.1: Hypothetical model of study**

## 1.8 Theoretical Framework

The current study is built upon the tenets of two prominent theories in the child development field, namely Bronfenbrenner's Bioecological Model (revised from his seminal Ecological Systems Theory) and Rohner's Interpersonal Acceptance-Rejection Theory (IPARTheory, formally known as Parental Acceptance-Rejection Theory, PARTheory). Based on the Bioecological Model, one's development is dependent on 'proximal processes', defined as the regular reciprocal interactions between an active individual and its immediate environment over an extended period of time

(Bronfenbrenner & Morris, 2006). This theory posits that development is contextual and thus should be studied from an ecological perspective; nonetheless, the aspects of an individual or ‘person’ play a vital role in social interactions and subsequently the individual’s developmental outcome. Beyond the five environmental systems with which one interacts: the microsystem, mesosystem, exosystem, macrosystem, and chronosystem, personal characteristics significantly influence proximal processes in the environment over time. This summarizes the Process–Person–Context–Time Model (PPCT) which forms the basis of this revised theory and will be further discussed in the next chapter.

On the other hand, the IPARTheory proposes that perceived parental acceptance tends to relate positively to numerous domains of child outcome, while perceived parental rejection very often relates negatively to these domains. Additionally, according to IPARTheory’s sociocultural systems subtheory, various self, others, and context risk factors mediate the indirect relationship between perceived PAR and child developmental outcome (Rohner et al., 2012). ‘Self’ factors refer to the child’s biological and personality characteristics; ‘others’ factors include the personal and interpersonal characteristics of the rejecting parent or attachment figure; while ‘context’ factors speak of other significant figures in addition to social elements of the person’s environment (Rohner et al., 2012). These prepositions are very similar to the Bioecological Model and certainly lends greater support to our hypothesized relationships amongst the variables of interest.



**Figure 1.2: Theoretical framework of study**



Taken together, both the Bioecological Model and the IPARTheory integrate to provide a theoretical framework that guides this study. Based on the Bioecological Model, perceived PAR is an environmental factor, part of the adolescent's microsystem that directly and most proximately impacts the adolescent's development. On the other hand, adolescent ER, gender, and family income are 'person' characteristics that influence how an adolescent interacts with its environment which subsequently influences its development. More specifically, the IPARTheory suggests that perceived parental acceptance is positively related to adolescent ER and SBA, while perceived parental rejection relates to adolescent ER and SBA negatively. In addition, IPARTheory's sociocultural systems model lends support to the hypothesized mediating role of adolescent ER, where ER is the 'self' risk factor in the indirect relation between perceived PAR and adolescent SBA. Figure 1.2 depicts the theoretical framework as described.

### 1.9 Conceptual Framework

Based on the theoretical framework presented, a conceptual framework for the current study is drawn up as depicted in Figure 1.3. This study attempts to examine the direct and indirect relationships between perceived paternal and maternal PAR and adolescent outcome in terms of SBA. The indirect relationship is represented by a mediation of adolescent ER. Also included in the conceptual framework are the moderating variables of adolescent gender and family income, which are expected to moderate all paths in the model.

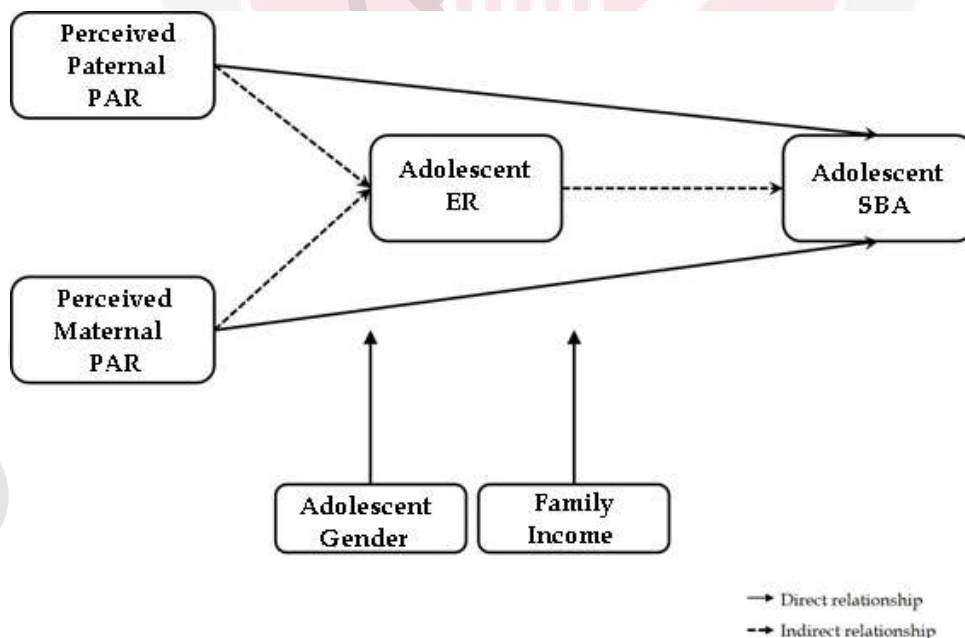


Figure 1.3: Conceptual framework of study

## 1.10 Significance of Study

This study is significant in several ways. Firstly, the findings from this research would provide important evidence for the betterment of adolescents' functioning in the society, in order to overcome social ills and mental health problems amongst adolescents. Specifically, the current study fills the gap in research with the investigation of the relationship between perceived PAR and adolescent SBA, both directly and indirectly via adolescent ER. With better understanding of the predictors of adolescent SBA (in this case, parental acceptance behaviours and adolescents' ER abilities), relevant parties can better utilize this understanding in research, policy-making, and practice.

With the investigation of ER as a potential mediator in the link between perceived PAR and adolescent SBA, this study also fills an important gap found in existing literature. As described previously, little research has been done to investigate the role of ER as a mediator in the link between PAR and adolescent adjustment. Besides elucidating the pathway through which parental rejection channels its negative effects on adolescents (and vice versa), this research also resolved mixed findings in the role of ER in the relationship between PAR and adolescent adjustment. Furthermore, studies that do investigate this relationship include younger children in their samples, instead of adolescents. Accordingly, this study presents adolescent ER as a potential attribute vital in the coping process between parental rejection and healthy adjustment, laying the foundation for future longitudinal research set out to examine the causal effects of perceived PAR on adolescent ER and SBA. This in turn contributes to knowledge vital for practitioners intending to develop programs or therapies that would be helpful for adolescents who face maladjustment in the socio-behavioural domain.

In terms of perceived paternal and maternal PAR, this study presents itself as one of the first to examine the differences between the two constructs at the latent level, by first establishing measurement invariance between them. Results on the differential impact of paternal and maternal PAR on adolescent SBA also adds to existing knowledge in the field of PAR and adolescent adjustment as a whole. Furthermore, while most studies on ER focused on mothers (Bornstein, 2008), the present research included the examination of fathers' influence on adolescent ER.

Besides, past studies have reported findings on differences in PAR behaviours across gender of parents. For example, Dwairy (2010) found that mothers were more accepting and less rejecting than fathers across nine countries. To extend such findings, the current research attempted to reveal

the similarity and/or differences in perceived paternal and maternal PAR amongst Malaysian adolescents. While it is common for studies to examine differences between groups using conventional methods at the observed level, the current study employed structural equation modelling approaches to examine differences between paternal and maternal acceptance-rejection at the latent (unobserved) level, where error variances are taken into account.

Additionally, most studies on PAR are located in the Western and major Eastern countries (e.g., South Korea: Lee, Yu, & Choy, 2012; China: Chang, Schwartz, Dodge, & McBride-Chang, 2003), and Middle Eastern countries. The current study is situated in Malaysia, a South East Asian country relatively rarely researched in terms of PAR. With a multicultural population of various ethnic groups such as Malay, Chinese, and Indian, this study will shed light on the relation between perceived PAR and adolescent adjustment within these cultures in Malaysia and further extend the scope of research on perceived PAR and adolescent adjustment.

In terms of data analysis, this research employed structural equation modeling (SEM), which represents a sophisticated and comparatively modern statistical analysis technique. Only a relative handful of studies on PAR or adolescent ER employed this analysis method (e.g., Lee et al., 2012), signifying the distinctive nature of the current study. The usage of SEM also produces more meaningful and valid results (Werner & Schermelleh-Engel, 2009) in the rigorous testing of multivariate relationships.

### **1.11 Definition of Terminology**

Several key terms are conceptually and operationally defined below based on the context of the current research:

#### **Parent (Father / Mother)**

**Conceptual:** A person who is a father or mother; a person who has a child ("Parent", 2009).

**Operational:** The biological or non-biological parent of the child; he/she is the attachment figure and main caregiver of the child.

#### **Child**

**Conceptual:** A young person; a son or daughter ("Child", 2009).

**Operational:** An offspring of parents, referring to those in their infancy right up to adolescence.

### **Adolescent**

**Conceptual:** A person in the developmental period between childhood and adulthood, within the age range of 10 to 19 years old (World Health Organization, 2016).

**Operational:** A young person between 12 to 19 years of age, attending a public secondary school.

### **Perceived Paternal / Maternal Parental Acceptance**

**Conceptual:** A child's subjective experience of love, warmth, affection, care, support, nurturance, comfort, and concern from its parent, which might differ from that which is observed outwardly (Rohner, 2015).

**Operational:** Adolescent respondents' ratings of their perceived paternal / maternal acceptance-rejection on the child versions of the Parental Acceptance-Rejection Questionnaire (Child-PARQ-SF: Father / Mother), where a lower total score indicates higher perceived acceptance.

### **Perceived Paternal / Maternal Parental Rejection**

**Conceptual:** A child's subjective experience of hostility, aggression, indifference, neglect, lack of affection, or undifferentiated rejection from its parent, which might differ from that which is observed outwardly (Rohner, 2015).

**Operational:** Adolescent respondents' ratings of their perceived paternal / maternal acceptance-rejection on the child versions of the Parental Acceptance-Rejection Questionnaire (Child-PARQ-SF: Father / Mother), where a higher total score indicates higher perceived rejection.

### **Emotion Regulation (ER)**

**Conceptual:** The processes of learning to recognize, monitor, evaluate, and modify emotional reactions, either automatically or controllably, consciously or unconsciously (Gross, 1998; Thompson, 1994).

**Operational:** Adolescent respondents' ratings of their emotion regulation on the Emotion Regulation Index for Children and Adolescents (ERICA), where a higher total score indicates greater emotion regulation competence.

### **Socio-Behavioural Adjustment (SBA)**

**Conceptual:** Adjustment in the social (relationships and social skills) and behavioural spheres

**Operational:** Adolescent respondents' ratings of their socio-behavioural adjustment on five out of seven subscales on the child version of the Personality Assessment Questionnaire (Child PAQ), where a higher total score indicate lower socio-behavioural adjustment. The five subscales are: hostility and aggression, dependence, self-esteem, self-adequacy, and worldview.

## 1.12 Organization of Thesis Chapters

This thesis is organized in five chapters, each of which are summarized below:

### **Chapter 1: Introduction**

This chapter introduces the background, problem statement, and significance of the current study, along with fundamental research elements like research questions, objectives, hypotheses, theoretical and conceptual framework, and definitions of important terminologies.

### **Chapter 2: Literature Review**

This chapter summarizes and critically reviews theories and current literature on the variables of interest and their relationships with each other, from which the hypotheses of the current research are built upon.

### **Chapter 3: Methodology**

This chapter describes the research methods used to empirically test the hypotheses of this study. Details regarding the research design, site, population and sample, sampling procedure, measures (instruments), pilot testing, as well as procedures of data collection, data entry, data preparation, and data analyses are included.

### **Chapter 4: Results and Discussion**

This chapter details the results of data analyses in terms of descriptive statistics as well as inferential statistics obtained from analyses using SEM. Major findings are discussed and summarized in accordance with the objectives and hypotheses of this study.

### **Chapter 5: Conclusion, Implications, and Recommendations**

This chapter concludes the findings drawn from Chapter 4. Theoretical and practical implications stemming from these conclusions are discussed, followed by limitations of the current research and recommendations for future research.

### 1.13 Chapter Summary

This chapter has presented the background of study, statement of problem, purpose of study, research questions, research objectives, hypotheses, theoretical framework, conceptual framework, significance of study, and definition of terminologies of the present research. Additionally, a summary of the five chapters consisted in this thesis was also outlined.





## REFERENCES

- Adjustment. (n.d.). Retrieved 10 June, 2017 from the Encyclopædia Britannica: <https://www.britannica.com/topic/adjustment-psychology>
- Adrian, M., Zeman, J., Erdley, C., Lisa, L., Homan, K., & Sim, L. (2009). Social contextual links to emotion regulation in an adolescent psychiatric inpatient population: Do gender and symptomatology matter? *Journal of Child Psychology and Psychiatry*, 50, 1428–1436. doi:10.1111/j.1469-7610.2009.02162.x
- Akse, J., Hale, W. W. III, Engels, R. C. M. E., Raaijmakers, Q. A. W., Meeus, W. H. J. (2004). Personality, perceived parental rejection and problem behavior in adolescence. *Social Psychiatry and Psychiatric Epidemiology*, 39,980–988. doi:10.1007/s00127-004-0834-5
- Alegre, A., & Benson, M. J. (2010). Parental Behaviors and Adolescent Adjustment: Mediation via Adolescent Trait Emotional Intelligence. *Individual Differences Research*, 8(2), 83-96.
- Allen, N.B., & Sheeber, L.B. (2008). *Adolescent emotional development and the emergence of depressive disorders*. Cambridge, UK: Cambridge University Press.
- American Psychological Association [APA]. (n.d.). *Children, youth, families and socioeconomic status*. Retrieved from <http://www.apa.org/pi/ses/resources/publications/children-families.aspx>
- Arbuckle, J. L. (2012). Amos (Version 21.0) [Computer Software]. Chicago: Amos Development Corporation.
- Ausubel, D. P., Balthazar, E. E., Rosenthal, I., Blackman, L. S., Schpoont, S. H., & Welkowitz, J. (1954). Perceived parent attitudes as determinants of children's ego structure. *Child Development*, 25(3), 173-183.
- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36(3), 421-458.
- Bailey, J. A., Hill, K. G., Guttmanova, K., Oesterle, S., Hawkins, J., Catalano, R. F., & McMahon, R. J. (2012). The association between parent early adult drug use disorder and later observed parenting practices and child behavior problems: testing alternate models. *Developmental Psychology*, doi:10.1037/a0029235

- Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. *Structural Equation Modeling*, 9(1), 78-102. Retrieved from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1066&context=edpsychpapers>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173-1182.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego, CA: Academic Press.
- Baumrind, D. (1966). Effects of authoritative parental control on child behaviour. *Child Development*, 37(4), 887-907.
- Bélanger, J. (2013, May 24). *Mediation with bootstrapping*. Retrieved from <https://www.youtube.com/watch?v=nOKHtYDhmDI>
- Bentler, P. M. (1980). Multivariate analysis with latent variables: Causal modeling. *Annual Review of Psychology*, 31(1), 419-456.
- Berenson, K. R., Crawford, T. N., Cohen, P., & Brook, J. (2005). Implications of Identification with Parents and Parents' Acceptance for Adolescent and Young Adult Self-esteem. *Self & Identity*, 4(3), 289-301. doi:10.1080/13576500444000272
- Bornstein, M. H. (Ed.). (2008). *Handbook of parenting: Volume 4 Social conditions and applied parenting*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Sadness and depression*. New York, NY: Basic Books.
- Bradley, S. (2000). *Affect regulation and the development of psychopathology*. New York: Guilford Press.
- Brenning, K. M., & Braet, C. (2013). The emotion regulation model of attachment: An emotion-specific approach. *Personal Relationships*, 20(1), 107-123. doi:10.1111/j.1475-6811.2012.01399
- Breusch, T. S., & Pagan, A. R. (1979). A simple test for heteroskedasticity and random coefficient variation. *Econometrica*, 47(5), 1287-1294.
- Bronfenbrenner, U. (1992). Ecological systems theory. In Vasta, R. (Ed.), *Six theories of child development: Revised formulations and current issues* (pp. 187-249). London, England: Jessica Kingsley Publishers.



- Bronfenbrenner, U. (1994). Ecological models of human development. In *International Encyclopedia of Education, Vol. 3, 2<sup>nd</sup> Ed.* Oxford: Elsevier.
- Bronfenbrenner, U., & Morris, P.A. (2006). The bioecological model of human development. In R. M. Lerner (Ed.), *Handbook of child psychology* (pp. 793–828). Hoboken, NJ: John Wiley & Sons, Inc.
- Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2009). Self-regulation and its relations to adaptive functioning in low-income youths. *American Journal of Orthopsychiatry*, 79(1), 19–30.
- Bynum, M. S., & Brody, G. H. (2005). Coping behaviors, parenting, and perceptions of children's internalizing and externalizing problems in rural African American mothers. *Family Relations*, 54(1), 58–71.
- Byrne, M. B. (2010). *Structural Equation Modeling with AMOS: Basic concepts, applications, and programming* (2<sup>nd</sup>ed.). New York, NY: Routledge.
- Carver, C. S., & Scheier, M. F. (2012). *Perspectives on Personality* (7<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Education.
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, 59(2-3), 228–249.
- Chang, L., Schwartz, D., Dodge, K. A., & McBride-Chang, C. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of Family Psychology*, 17(4), 598–606. doi:10.1037/0893-3200.17.4.598
- Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development*, 65(4), 1111–1119.
- Check, J., Schutt, R. K. (2012). *Research methods in education*. California, CA: Sage Publications.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(2), 233–255.
- Child. (n.d.). In *Merriam-Webster online*. Retrieved August 10, 2009, from <http://www.merriam-webster.com/dictionary/child>

- Ciccharelli, S. K., & White, J. N. (2014). *Psychology* (3<sup>rd</sup>ed.). Essex, England: Pearson Education.
- Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development*, 75(2), 317-333. doi:10.2307/3696638
- Collins, L. M., Schafer, J. L., & Kam, C. M. (2001). A comparison of inclusive and restrictive strategies in modern missing-data procedures. *Psychological Methods*, 6, 330-351.
- Coombs, R. H., Paulson, M. J., & Richardson, M. A. (1991). Peer vs. parental influence in substance use among Hispanic and Anglo children and adolescents. *Journal of Youth and Adolescence*, 20(1), 73-88.
- Cortina, J. M. (2002). Big things have small beginnings: An assortment of "minor" methodological misunderstandings. *Journal of Management*, 28(3), 339-362. doi:10.1177/014920630202800305
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3<sup>rd</sup>ed.). California, CA: Sage Publications.
- Daemi, F., & Janbozorgi, M. (2011). The effect of parenting style and early maladaptive schemas on children's self-esteem [Abstract]. *Behavioral Science*, 5(2), 165-172.
- Denham, S. A. (1998). *Emotional development in young children*. New York, NY: Guilford Press.
- Department of Statistics, Malaysia. (2015). *Report of Household Income and Basic Amenities Survey 2014*. Retrieved from [www.statistics.gov.my/index.php?r=column/pdfPrev&id=aHhtTHVWNVYzTFBua2dSUIBRL1Rjdz09](http://www.statistics.gov.my/index.php?r=column/pdfPrev&id=aHhtTHVWNVYzTFBua2dSUIBRL1Rjdz09)
- Dwairy, M. (2010). Parental acceptance-rejection: A research on parenting and psychological adjustment of children. *Journal of Child and Family Studies*, 19(1), 30-35. doi:10.1007/s10826-009-9338-y
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, 9(4):241-273.
- Eisenberg, N., Liew, J., & Pidada, S. U. (2004). The longitudinal relations of regulation and emotionality to quality of Indonesian children's socioemotional functioning. *Developmental Psychology*, 40(5), 790-804.

- Eisenberg, N., Spinrad, T. L., & Eggum, N. D. (2010). Emotion-related self-regulation and its relation to children's maladjustment. *Annual Review of Clinical Psychology*, 6, 495-525. doi:10.1146/annurev.clinpsy.121208.131208
- Eisenberg, N., Spinrad, T. L., Fabes, R. A., Reiser, M., Cumberland, A., Shepard, S. A., ... Thompson, M. (2004). The relations of effortful control and impulsivity to children's resiliency and adjustment. *Child Development*, 75(1), 25-46.
- Eisenberg, N., Valiente, C., Morris, A., Fabes, R. A., Cumberland, A., Reiser, M., & ... Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's regulation, and quality of socioemotional functioning. *Developmental Psychology*, 39(1), 3-19. doi:10.1037/0012-1649.39.1.3
- Eisenberg, N., Zhou, Q., Spinrad, T. L., Valiente, C., Fabes, R. A., & Liew, J. (2005). Relations among positive parenting, children's effortful control, and externalizing problems: A three-wave longitudinal study. *Child Development*, 76(5), 1055-1071.
- Erikson, E. H. (1963). *Youth: Change and challenge*. New York: Basic Books.
- Evans, G. W., & Kim, P. (2012). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives*, 7(1), 43-48. doi:10.1111/cdep.12013
- Feinberg, M.E., Howe, G.W., Reiss, D., & Hetherington, M. E. (2000). Relationships between perceptual differences of parenting and adolescent antisocial behavior and depressive symptoms. *Journal of Family Psychology*, 14(4), 531-555. doi:10.1037/0893-3200.14.4.531
- Finkenauer, C., Engels, R. C. M. E., & Baumeister, R. F. (2005). Parenting behaviour and adolescent behavioural and emotional problems: The role of self-control. *International Journal of Behavioral Development*, 29, 58-69. doi: 10.1080/01650250444000333
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39-50.
- Garson, G. D. (2012). *Testing statistical assumptions*. Asheboro, NC: Statistical Associates Publishing.
- Gomez, R. & Suhaimi, A. F. (2014a). Malaysia parent ratings of the Parent-Parental Acceptance-Rejection Questionnaire: Invariance across

ratings of Malay, Chinese, and Indian children. *Cross-Cultural Research*, 1-16. doi:0.1177/1069397114548647

- Gomez, R. & Suhaimi, A. F. (2014b). Malaysian parent ratings of the Parental Acceptance-Rejection Questionnaire-Short Form: Factor structure and invariance across girls and boys and mothers and fathers. *Parenting: Science and Practice*, 14(3-4), 195-214. doi:10.1080/15295192.2014.945585
- Gomez, R., & Rohner, R. P. (2011). Tests of factor structure and invariance in the US and Australia using the adult version of the Parental Acceptance-Rejection Questionnaire. *Cross-Cultural Research*, 45, 267-285.
- Gordon, M. S., & Cui, M. (2012). The effect of school-specific parenting processes on academic achievement in adolescence and young adulthood. *Family Relations*, 61(5), 728-741.
- Gordon, R. G. (1931). The Problem of Social Adjustment. *Journal of Neurology and Psychopathology*, 11(43), 239-246.
- Greenberger, E., Chen, C., Tally, S. R., & Dong, Q. (2000). Family, peer, and individual correlates of depressive symptomatology among U.S. and Chinese adolescents. *Journal of Consulting and Clinical Psychology*, 68(2), 209-219.
- Gregorich, S. E. (2006). Do self-report instruments allow meaningful comparisons across diverse population groups? Testing measurement invariance using the confirmatory factor analysis framework. *Med Care*, 44(11), 78-94.
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271-299.
- Gryczkowski, M. R., Jordan, S. S., & Mercer, S. H. (2010). Differential relations between mothers' and fathers' parenting practices and child externalizing behavior. *Journal of Child and Family Studies*, 19(5), 539-546. doi:10.1007/s10826-009-9326-2
- Gülay, H. (2011). Assessment of the prosocial behaviors of young children with regard to social development, social skills, parental acceptance-rejection and peer relationships. *Journal of Instructional Psychology*, 38(3/4), 164-172.
- Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7<sup>th</sup>ed.). New Jersey, NJ: Prentice Hall.

- Hall, R. J., Snell, A. F., & Foust, M. S. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods, 2*, 233–256.
- Handa, H., Ito, A., Tsuda, H., Ohsawa, I., & Ogawa, T. (2009). Low level of parental bonding might be a risk factor among women with prolonged depression: A preliminary investigation. *Psychiatry and Clinical Neurosciences, 63*(6), 721–729. doi:10.1111/j.1440-1819.2009.02018.x
- Harrell, A. W., Mercer, S. H., & DeRosier, M. E. (2009). Improving the social-behavioral adjustment of adolescents: The effectiveness of a social skills group intervention. *Journal of Child and Family Studies, 18*(4), 378–387. doi: 10.1007/s10826-008-9241-y
- Hart, C. H., Newell, L. D., & Olsen, S. F. (2003). Parenting skills and social-communicative competence in childhood. In J. O. Greene, & B. R. Burlison (Eds.), *Handbook of Communication and Social Interaction Skill* (pp. 753-797). Hillsdale, NJ: Erlbaum.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*(4), 408–420. doi:10.1080/03637750903310360
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: Does method really matter? *Psychological Science, 24*, 1918-1927. doi:10.1177/0956797613480187
- Hetherington, E. M., Parke, R. D., Gauvain, M., & Locke, V. O. (2006). *Child psychology: A contemporary viewpoint*. New York, NY: McGraw-Hill.
- Heymans, M., & Twisk, J. (2012). Handling missing data. Retrieved from <http://www.emgo.nl/kc/analysis/9%20Handling%20Missing%20Data.html>
- Hinton, P. R., Brownlow, C., McMurray, I., & Cozens, B. (2004). *SPSS Explained*. New York: Routledge Inc.
- Ho, R. (2014). *Handbook of univariate and multivariate data analysis with IBM SPSS* (2<sup>nd</sup>ed.). Florida, FL: Taylor & Francis.
- Howell, D. C. (2013). *Statistical Methods for Psychology* (8<sup>th</sup>ed.). Belmont, CA: Wadsworth.

- IBM Corporation. (2011). *IBM SPSS missing values 20*. Armonk, NY: IBM Corp.
- IBM Corporation. (2011). *IBM SPSS Statistics for Windows (Version 20.0)* [computer software]. Armonk, NY: IBM Corp.
- Jackson, D. L., Gillaspay, J. A. J., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods, 14*(1), 6-23.
- Jafari, M., Baharudin, R., Mukhtar, F., & Tan, J. P. (2012). Parenting behavior and anxiety amongst Malaysian adolescents. *Elixir Psychology, 47*, 9120-9125.
- Kagan, J. (1978). *The growth of the child: Reflections on human development*. New York, NY: Norton.
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*, 141-151.
- Kazarian, S. S., Moghnie, L., & Martin, R. A. (2010). Perceived parental warmth and rejection in childhood as predictors of humor styles and subjective happiness. *Europe's Journal of Psychology 3*, 71-93.
- Kenny, D. A. (2015, November 24). *Measuring model fit*. Retrieved from <http://davidakenny.net/cm/fit.htm>
- Khaleque, A. (2012). Perceived parental warmth, and children's psychological adjustment, and personality dispositions: A meta-analysis. *Journal of Child and Family Studies*. doi:10.1007/s10826-012-9579-z
- Khaleque, A., & Rohner, R. P. (2002). Perceived parental acceptance-rejection and psychological adjustment: A meta-analysis of cross-cultural and intracultural studies. *Journal of Marriage and Family, 64*(2), 54-64.
- Khaleque, A., & Rohner, R. P. (2012). Pancultural associations between perceived parental acceptance and psychological adjustment of children and adults: A meta-analytic review of worldwide research. *Journal of Cross-Cultural Psychology, 43*(5), 784-800. doi:10.1177/0022022111406120
- Kim, E. (2008). Psychological adjustment in young Korean American adolescents and parental warmth. *Journal of Child & Adolescent Psychiatric Nursing, 21*(4), 195-201.



- Kim, K., & Rohner, R. P. (2002). Parental warmth, control, and involvement in schooling: Predicting academic achievement among Korean American adolescents [Abstract]. *Journal of Cross-Cultural Psychology*, 33(2), 127-140.
- Kim-Spoon, J., Cicchetti, D., & Rogosch, F. A. (2012). A longitudinal study of emotion regulation, emotion lability-negativity, and internalizing symptomatology in maltreated and nonmaltreated children. *Child Development*, 84(2), 512-527. doi:10.1111/j.1467-8624.2012.01857.x
- Kishton, J. M., & Widaman, K. F. (1994). Unidimensional versus domain representative parceling of questionnaire items: An empirical example. *Educational and Psychological Measurement*, 54, 757-765.
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (3<sup>rd</sup>ed.). New York, NY: The Guilford Press.
- Koydemir-Özden, S., & Demir, A. (2009). The relationship between perceived parental attitudes and shyness among Turkish youth: Fear of negative evaluation and self-esteem as mediators. *Current Psychology*, 28(3), 169-180. doi:10.1007/s12144-009-9054-1
- Lagacé-Séguin, D. G., & Coplan, R. J. (2005). Maternal emotional styles and child social adjustment: Assessment, correlates, outcomes and goodness of fit in early childhood. *Social Development*, 14(4), 613-636.
- Laible, D. J., & Carlo, G. (2004). The differential relations of maternal and paternal support and control to adolescent social competence, self-worth, and sympathy. *Journal of Adolescent Research*, 19(6), 759-782.
- Larsen, P. D. (n.d.). *Chapter 3: Psychosocial Adjustment*. Retrieved August 10, 2009, from [samples.jbpub.com/9781284049008/9781284057911\\_CH03\\_PASS02.pdf](http://samples.jbpub.com/9781284049008/9781284057911_CH03_PASS02.pdf)
- Lashbrook, J. T. (2000). Fitting in: Exploring the emotional dimension of adolescent peer pressure [Abstract]. *Adolescence*, 35(140), 747-757.
- Lederbogen, F., Haddad, L., & Meyer-Lindenberg, A. (2013). Urban social stress - Risk factor for mental disorders. The case of schizophrenia. *Environmental Pollution*, 183, 2-6. doi:10.1016/j.envpol.2013.05.046
- Lee, J., Yu, H., & Choi, S. (2012). The influences of parental acceptance and parental control on school adjustment and academic achievement for South Korean children: The mediation role of self-regulation. *Asia Pacific Education Review*, 13(2), 227-237. doi:10.1007/s12564-011-9186-5

- Liau, A. K., Liau, A. W. L., Teoh, G. B. S., & Liau, M. T. L. (2003). The case for emotional literacy: The influence of emotional intelligence on problem behaviours in Malaysian secondary school students. *Journal of Moral Education, 32*, 51-66. doi: 10.1080/0305724022000073338
- Lim, B. (2017, January 23). *Mental Health Council sounds alarm bell on M'sia's psychiatrist shortage* [Press interview]. Retrieved from <https://www.nst.com.my/news/2017/01/206598/mental-health-council-sounds-alarm-bell-msias-psychiatrist-shortage>
- Lim, H. J., Baharudin, R., & Tan, J. P. (2013). Perceived parental warmth and depression in early adolescents: Path analysis on the role of self-esteem as a mediator. *Pertanika Journal of Social Sciences and Humanities, 21*, 165-178.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal, 9*(2), 151-173. doi:10.1207/s15328007sem0902\_1
- MacDermott, S. T., Gullone, E., Allen, J. S., King, N. J., & Tonge, B. (2010). The emotion regulation index for children and adolescents (ERICA): A psychometric investigation. *Journal of Psychopathology and Behavioral Assessment, 32*(3), 301-314. doi:10.1007/s10862-009-9154-0
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370-96.
- McGinn, T. (2004). Instructions for Probability Proportional to Size Sampling Technique. Retrieved Jan 21, 2013, from [http://www.rhrc.org/resources/general\\_fieldtools/toolkit/55b%20pps%20sampling%20technique.doc](http://www.rhrc.org/resources/general_fieldtools/toolkit/55b%20pps%20sampling%20technique.doc)
- Meredith, W. (1993). Measurement invariance, factor analysis and factorial invariance. *Psychometrika, 58*(4), 525-543. doi:10.1007/BF02294825
- Meuleman, B. (2013). *Chapter 2: The comparability of attitude measurements*. Retrieved from <http://essedunet.nsd.uib.no/cms/topics/immigration/2/9.html>
- Meunier, J., Bisceglia, R., & Jenkins, J. M. (2012). Differential parenting and children's behavioral problems: Curvilinear associations and mother-father combined effects. *Developmental Psychology, 48*(4), 987-1002. doi:10.1037/a0026321

- Meyers, L. S., Gamst, G., & Guarino, A.J. (2013). *Applied multivariate research: Design and interpretation* (2nd Ed.). California, CA: SAGE Publications, Inc.
- Ministry of Health Malaysia [MOH], Institute for Public Health. (2015). *National Health and Morbidity Survey 2015. Vol. II: Non-Communicable Diseases, Risk Factors & Other Health Problems* [Press release]. Retrieved from [https://www.researchgate.net/publication/305213149\\_National\\_Health\\_and\\_Morbidity\\_Survey\\_2015-VOLUME\\_II\\_Non-Communicable\\_Diseases\\_Risk\\_Factors\\_Other\\_Health\\_Problems](https://www.researchgate.net/publication/305213149_National_Health_and_Morbidity_Survey_2015-VOLUME_II_Non-Communicable_Diseases_Risk_Factors_Other_Health_Problems)
- Mogro-Wilson, C. (2008). The influence of parental warmth and control on Latino adolescent alcohol use. *Hispanic Journal of Behavioral Sciences*, 30(1), 89-105. doi:10.1177/0739986307310881
- Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, 16(2), 361-388. doi:10.1111/j.1467-9507.2007.00389.x.
- Muthen, L. K. (2002, April 16). Loading greater than one in a EFA with categorical data [Msg 4]. Message posted to <http://www.statmodel.com/discussion/messages/8/178.html?1406651561>
- myMetro. (2015, March 11). *Statistik moral remajakita* [Moral statistics of our youth]. *Harian Metro*. Retrieved from <http://www.hmetro.com.my/node/36116>
- Nyarko, K. (2007). Parental involvement: A sine qua non in adolescents' educational achievement. Retrieved from [http://edoc.ub.uni-muenchen.de/8384/1/Nyarko\\_Kingsley.pdf](http://edoc.ub.uni-muenchen.de/8384/1/Nyarko_Kingsley.pdf)
- Otterpohl, N., & Wild, E. (2013). Cross-lagged relations among parenting, children's emotion regulation, and psychosocial adjustment in early adolescence. *Journal of Clinical Child & Adolescent Psychology*, 0, 1-16. doi: 10.1080/15374416.2013.862802
- Owens, T. J. (1993). Accentuate the positive- and the negative: Rethinking the use of self-esteem, self-deprecation, and self-confidence. *Social Psychology Quarterly*, 56(4), 288-299.
- Paquette, D. (2004). Theorizing the father-child relationship: Mechanisms and developmental outcomes [Abstract]. *Human Development*, 47(4), 193-219.

- Parent. (n.d.). In *Merriam-Webster online*. Retrieved August 10, 2009, from <http://www.merriam-webster.com/dictionary/parent>
- Parke, C. S. (2013). *Essential first steps to data analysis: Scenario-based examples using SPSS*. California, CA: SAGE Publications.
- Pinugu, J. (2015, August 9). The effect of perceived parental behavior on adolescent emotional regulation. Retrieved from <https://www.researchgate.net/publication/280803862>
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Assessing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227.
- Random.org. (2013). *What's this fuss about true randomness?* Retrieved from <http://www.random.org/>
- Raykov, T. (1998b). Coefficient alpha and composite reliability with interrelated nonhomogeneous items. *Applied Psychological Measurement*, 22, 375-385.
- Roe, A., & Siegelman, M. (1963). A parent-child relations questionnaire. *Child Development*, 34(2), 355-369.
- Rohner, R. P. (1986). *The warmth dimension: Foundations of parental acceptance-rejection theory*. Beverly Hills, CA: Sage Publications.
- Rohner, R. P. (2005). Glossary of significant concepts in parental acceptance-rejection theory (PARTheory). Retrieved April 5, 2011 from University of Connecticut, Center for the Study of Parental Acceptance and Rejection Website: [http://www.csiar.uconn.edu/intro\\_partheory.html](http://www.csiar.uconn.edu/intro_partheory.html)
- Rohner, R. P. (2015). Introduction to Interpersonal Acceptance-Rejection Theory (IPARTheory), methods, evidence, and implications. Retrieved January 23, 2016 from University of Connecticut, Center for the Study of Interpersonal Acceptance and Rejection Website: <http://csiar.uconn.edu/introduction-to-partheory>
- Rohner, R. P. (2015). Introduction to interpersonal acceptance-rejection theory (IPARTheory): Methods, evidence, and implications. Retrieved January 12, 2016 from University of Connecticut, Center for the Study of Interpersonal Acceptance and Rejection Website: <http://csiar.uconn.edu/introduction-to-partheory/>

- Rohner, R. P., & Britner, P. A. (2002). Worldwide mental health correlates of parental acceptance-rejection: Review of cross-cultural and intracultural evidence. *Cross-Cultural Research*, 36(1), 16-47.
- Rohner, R. P., & Cournoyer, D. E. (1994). Universals in youths' perceptions of parental acceptance and rejection: Evidence from factor analyses within eight sociocultural groups worldwide. *Cross-Cultural Research*, 28, 371-383.
- Rohner, R. P., & Veneziano, R.A. (2001). The importance of father love: History and contemporary evidence. *Review of General Psychology*, 5(4), 382-405. doi:10.1037//1089-2680.5.4.382
- Rohner, R. P., Khaleque, A., & Cournoyer, D. E. (2005). Parental acceptance-rejection: Theory, methods, cross-cultural evidence, and implications. *ETHOS*, 33(3), 299-334.
- Rohner, R. P., Khaleque, A., & Cournoyer, D. E. (2011). Introduction to parental acceptance-rejection theory, methods, evidence, and implications. Retrieved April 5, 2011 from University of Connecticut, Center for the Study of Parental Acceptance and Rejection Website: [www.cspar.uconn.edu/intro\\_partheory.html](http://www.cspar.uconn.edu/intro_partheory.html)
- Rohner, R. P., Khaleque, A., & Cournoyer, D. E. (2012). Introduction to parental acceptance-rejection theory, methods, evidence, and implications. Retrieved August 12, 2012 from University of Connecticut, Center for the Study of Interpersonal Acceptance and Rejection Website: [www.csiar.uconn.edu/intro\\_partheory.html](http://www.csiar.uconn.edu/intro_partheory.html)
- Rohner, R. P., Parmar, P., & Ibrahim, M. (2010). Perceived teachers' acceptance, parental acceptance, behavioral control, school conduct, and psychological adjustment among school-age children in Kuwait. *Cross-Cultural Research*, 44(3), 269-282.
- Rosenbach, C., & Renneberg, B. (2014). Rejection sensitivity as a mediator of the relationship between experienced rejection and borderline characteristics [Abstract]. *Personality and Individual Differences*, 69, 176-181. doi:10.1016/j.paid.2014.05.032
- Rothrauff, T. C., Cooney, T. M., & Jeong, S. A. (2009). Remembered parenting styles and adjustment in middle and late adulthood. *Journal of Gerontology: Social Sciences*. doi:10.1093/geronb/gbn008
- Rubin, D. B. (1976). Inference and missing data. *Biometrika*, 63(3), 581-592. Retrieved from <http://links.jstor.org/sici?sici=0066-3444%28197612%2963%3A3%3C581%3AIAMD%3E2.0.CO%3B2-I>



- Rushton, J. P., Brainerd, C. J., & Pressley, M. (1983). Behavioral development and construct validity: The principle of aggregation. *Psychological Bulletin*, *94*, 18-38.
- Ryan, R. M., Martin, A., & Brooks-Gunn, J. (2006). Is one good parent good enough? Patterns of mother and father parenting and child cognitive outcomes at 24 and 36 months. *Parenting: Science and Practice*, *6*(2-3), 211-228.
- Saarni, C., Mumme, D., & Campos, J. (1998). Emotional development: Action, communication, and understanding. In N. Eisenberg (Vol. Ed.), *Social, emotional, and personality development* (pp. 237-311). Vol. 3 of W. Damon (Series Ed.), *Handbook of Child Psychology*. New York: John Wiley.
- Sahaa, S., Barnettb, A. G., Bukad, S. L., & McGrath, J. J. (2009). Maternal age and paternal age are associated with distinct childhood behavioural outcomes in a general population birth cohort. *Schizophrenia Research*, *115*(2-3), 130-135. doi:10.1016/j.schres.2009.09.012
- Saritas, D., Grusec, J. E., & Gençöz, T. (2013). Warm and harsh parenting as mediators of the relation between maternal and adolescent emotion regulation. *Journal of Adolescence*, *36*, 1093-1101. doi:10.1016/j.adolescence.2013.08.015
- Savalei, V., & Bentler, P. M. (2006). R. Grover & M. Vriens (Eds.), *The handbook of market research: Uses, misuses, and future advances*. Retrieved from [http://www.terry.uga.edu/~rgrover/chapter\\_17.pdf](http://www.terry.uga.edu/~rgrover/chapter_17.pdf)
- Schaefer, E. S. (1965). Children's reports of parental behavior: An inventory. *Child development*, *36*(2), 413-424.
- Selangor State Government. (2013). *Selangor History*. Retrieved from <http://www.selangor.gov.my/en/main.php?Content=vertsectiondetails&VsItemID=3&VertSectionID=283&CurLocation=44&Page=1>
- Sells, H. (n.d.). What is PPS sampling? Retrieved from [http://www.ehow.com/about\\_6663947\\_pps-sampling\\_.html](http://www.ehow.com/about_6663947_pps-sampling_.html)
- Shek, D.T. L. (2007). Perceived parental control based on indigenous Chinese parental control concepts in adolescents in Hong Kong. *American Journal of Family Therapy*, *35*(2), 123-137.
- Silk, J. S., Steinberg, L., & Morris, A. S. (2003). Adolescents' emotion regulation in daily life: Links to depressive symptoms and problem behavior. *Child Development*, *74*(6), 1869-1880.



- Socioeconomic Status. (n.d.). Retrieved January 19, 2013 from the Wikipedia: [http://en.wikipedia.org/wiki/Socioeconomic\\_status](http://en.wikipedia.org/wiki/Socioeconomic_status)
- Spear, L. P. (2000). The adolescent brain and age-related behavioral manifestations. *Neuroscience & Biobehavioral Reviews*, 24(4), 417-463. doi:10.1016/S0149-7634(00)00014-2
- Starkey, S. L. (1980). The relationship between parental acceptance-rejection and the academic performance of fourth and fifth graders. *Cross-Cultural Research*, 15(1), 67-80. doi:10.1177/106939718001500106
- Steenkamp, J. B. E. M., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, 25, 78-90.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6<sup>th</sup>ed.). Upper Saddle River, NJ: Pearson Education.
- Tan, J. P. (2012). Inter-ethnic and mono-ethnic families: Examining the association of parenting and child emotional and behavioural adjustment. *Pertanika Journal of Social Sciences and Humanities*, 20, 165-178.
- Tearne, J. E. (2015). Older maternal age and child behavioral and cognitive outcomes: a review of the literature [Abstract]. *Fertility and Sterility*, 103(6), 1381-1391. doi:10.1016/j.fertnstert.2015.04.027
- The Malaysian Digest. (2014, October 16). *Young and certainly getting dangerous: The rise of juvenile criminals* [Press interview]. Retrieved from <http://www.malaysiandigest.com/features/523273-young-and-certainly-getting-dangerous-the-rise-of-juvenile-criminals.html>
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. In N.A. Fox (Ed.), *Monographs of the Society for Research in Child Development*, 59(2/3), 25-52. doi:10.2307/1166137
- Thurstone, L. L. (1947). *Multiple factor analysis*. Chicago: University of Chicago Press.
- Uddin, M. K. (2011). Parental warmth and academic achievement of adolescent children. *Journal of Behavioural Sciences*, 21(1), 1-12.
- Vajda, A., & Láng, A. (2014). Emotional abuse, neglect in eating disorders and their relationship with emotion regulation. *Procedia - Social and Behavioral Sciences*, 131, 386 - 390. doi:10.1016/j.sbspro.2014.04.135

- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4-70. doi:10.1177/109442810031002
- Verhoeven, M., Junger, M., Van Aken, C., Deković, M., & Van Aken, M. A. G. (2010). Mothering, fathering, and externalizing behavior in toddler boys. *Journal of Marriage and Family*, 72(2), 307 - 317. doi:10.1111/j.1741-3737.2010.00701.x
- Werner, C., & Schermelleh-Engel, K. (2009). Structural equation modeling: Advantages, challenges, and problems. Retrieved from <http://www.psychologie.uzh.ch/fachrichtungen/methoden/team/christinawerner/sem.html>
- White, R. M. B., Roosa, M. W., Weaver, S. R., & Nair, R. L. (2009). Cultural and contextual influences on parenting in Mexican American families. *Journal of Marriage and Family*, 71(1), 61-79. doi:10.1111/j.1741-3737.2008.00580.x
- Wicklin, R. (2012, March 2). *Testing data for multivariate normality*. Retrieved from <http://blogs.sas.com/content/iml/2012/03/02/testing-data-for-multivariate-normality.html>
- World Health Organization. (2016). Adolescent development. Retrieved July 10, 2016 from [http://www.who.int/maternal\\_child\\_adolescent/topics/adolescence/dev/en/](http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/)
- Yaakob, U., Masron, T., & Masami, F. (2012). Ninety years of urbanization in Malaysia: A geographical investigation of its trends and characteristics. *Journal of Ritsumeikan Social Sciences and Humanities*, 4, 79-101.
- Yap, S. T., Baharudin, R., Yaacob, S., & Osman, S. (2013). Paternal and maternal involvement in Malaysian adolescents: Test of factor structure, measurement invariance and latent mean differences. *Child Indicators Research*, 7(1), 193-208.
- Yates, C. (n.d.). *Mean vs. median income: Which one to use and what it means for South Central Kentucky*. Retrieved from [wkuappliedeconomics.org/indblogs/mean-vs-median-income-which-one-to-use-and-what-it-means-for-south-central-kentucky](http://wkuappliedeconomics.org/indblogs/mean-vs-median-income-which-one-to-use-and-what-it-means-for-south-central-kentucky)

Zhao, N. (2009). The minimum sample size in factor analysis. Retrieved from <http://www.encyclopedia.com/entry/minimum-sample-size-factor-analysis>

Zhou, Q., Lengua, L. J., & Wang, Y. (2009). The relations of temperament reactivity and effortful control to children's adjustment problems in China and the United States. *Developmental Psychology, 45*, 724-739.



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## BIODATA OF STUDENT

Melissa Ong Ying Sim was born in Kuala Lumpur, Malaysia. She completed her primary education at three vernacular schools in Taiping, Muar, and Kuala Lumpur respectively. She then continued her secondary education at Sekolah Menengah Kebangsaan Kepong Baru, Kuala Lumpur, after which she completed her Cambridge A-Levels (Arts) at Kolej Tunku Abdul Rahman. She obtained her Bachelor in Social Science (Psychology) with First Class Honors from Universiti Tunku Abdul Rahman in 2009. She was then offered to further her studies in Universiti Putra Malaysia, with a privilege to skip master's degree due to outstanding academic achievement. She enrolled in the Doctor of Philosophy (Psychology of Child Development) program in 2010.

Throughout her undergraduate years, Melissa was listed on the prestigious President's List (GPA above 3.85) for three semesters, as well as the Dean's List (GPA above 3.5) for one semester. She also received the coveted Book Prize during her graduation for excellent academic achievement. As a result, she was invited to represent her cohort of Psychology graduates to meet with Tun Dr. Ling Liong Sik after her graduation ceremony.

In her doctoral studies, Melissa attended several workshops to advance her knowledge on relevant areas, including workshops on Introduction to Structural Equation Modelling, Statistical Analysis: AMOS and SEM, The Research Journey, Element of the Thesis, as well as The Thesis & The Viva Voce. In terms of academic achievement, Melissa obtained distinctions in all her coursework subjects to achieve a CGPA of 4.0.



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