



UNIVERSITI PUTRA MALAYSIA

**RELATIONSHIPS BETWEEN MATERNAL ANTENATAL
ATTACHMENT, TODDLER TEMPERAMENT, MATERNAL
SENSITIVITY AND TODDLER ATTACHMENT SECURITY
IN YOGYAKARTA, INDONESIA**

**TITIK MUTI'AH
FEM 2009 12**



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**DOCTOR OF PHILOSOPHY
UNIVERSITI PUTRA MALAYSIA**

2009



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By

TITIK MUTI'AH

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

October 2009



DEDICATION

To my husband Hariyadi

Abstract of thesis presented to the senate of Universiti Putra Malaysia in fulfilment
of the requirement for the degree of Doctor of Philosophy

**RELATIONSHIPS BETWEEN MATERNAL ANTENATAL ATTACHMENT,
TODDLER TEMPERAMENT, MATERNAL SENSITIVITY AND TODDLER
ATTACHMENT SECURITY IN YOGYAKARTA, INDONESIA**

By

TITIK MUTI'AH

October 2009

Chairman : Rohani Abdullah, PhD

Faculty : Human Ecology

The mother-toddler relationship as an important aspect for further child's development of secure attachment has not been detail studied in Indonesia. This study has been conducted to investigate the relationships between maternal antenatal attachment, toddler temperament, maternal sensitivity and toddler security attachment in Yogyakarta, Indonesia. Mixed methods approach (quantitative, qualitative) and design (cross-sectional and retrospective methods) was adopted in this study to examine the relationship among variables. Eighty-four pairs of mothers and toddler dyads participated as the respondents in this study. Data were collected using combination of observation, interviews, self-reports and questionnaire. Observation method was applied to obtain data on toddler attachment security and maternal sensitivity using TAS-45 (Toddler Attachment Sort) and MBQS (Maternal Behavior Q-Sort). Interview method was applied to measure the maternal antenatal attachment to the unborn baby using the modified of Condon's MAAS (Maternal Antenatal Attachment Scale). The toddler temperament and maternal antenatal



attachment of childhood were determined from the respondent's score through the Toddler Temperament Scale (TTS) and Perception of Adult Attachment Questionnaire (PAAQ). Eleven mothers have been selected for the in-depth-interview to understand further the phenomena and enhance the interpretation of the quantitative finding. The results obtained from the quantitative approach showed that child sex, family income, mother education, maternal antenatal attachment (28.7%), activity dimension of toddler temperament (16.1%) and maternal sensitivity (46%) have contributed significantly (62.2%) to the variance in the toddler attachment security. Other temperament dimensions (regularity, approach, adaptability, mood, intensity, distractibility, persistence, threshold, reactivity and self-regulation) did not show any significant relationships with other independent and dependent variables. However, the qualitative findings revealed a pattern of relationship between maternal antenatal attachment developed during her childhood experiences, maternal antenatal contextual factors as well as toddler temperament and toddler attachment security. The toddler attachment security in Indonesia showed the same pattern as the Asian proportion of attachment style. This research study has supported the applicability of attachment theory in maternal and toddlers secure attachment in Indonesian culture. The quality of maternal attachment and behaviors as primary caregiver must be provided from the time of conception (antenatal period) and maintained during the toddler development. The maternal antenatal attachment and toddler characteristic had profound and durable effects on the toddler attachment security and mental health. The result of this study adds to our understanding of the mother's role in promoting and maintaining of healthy and secure child attachment.

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

PERKAITAN ANTARA PERAPATAN ANTINATAL IBU, TEMPERAMEN KANAK-KANAK, KESENSITIFAN IBU DAN KESELAMATAN PERAPATAN KANAK-KANAK DI YOGYAKARTA, INDONESIA

Oktober 2009

By

TITIK MUTI'AH

Pengurus : Rohani Abdullah, PhD

Fakulti : Human Ecology

Hubungan ibu-anak adalah aspek yang amat penting untuk perkembangan perapatan kanak-kanak yang selamat yang masih belum dikaji secara mendalam di Indonesia. Oleh yang demikian, kajian ini dilakukan untuk menyelidik perkaitan antara perapatan antinatal ibu, temperamen kanak-kanak, sensitiviti ibu dan keselamatan perapatan kanak-kanak di Yogyakarta, Indonesia. Pendekatan metod (kuantitatif, kualitatif) dan reka bentuk (kajian serentak dan retrospektif) campuran telah diambil untuk memeriksa hubungan antara pelbagai variabel dalam kajian ini. Lapan-puluh-empat pasangan ibu dan kanak-kanak telah terlibat sebagai responden dalam kajian ini. Data telah dikumpulkan menggunakan kombinasi di antara kaedah pemerhatian, temubual, laporan peribadi dan soal selidik. Kaedah pemerhatian telah digunakan untuk mengutip data TAS-45 (*Toddler Attachment Sort*) dan MBQS (*Maternal Behavior Q-Sort*) yang mengukur pelekatan keselamatan kanak-kanak dan sensitiviti ibu. Kaedah



temubual telah diguna untuk mengisi boring MAAS (*Maternal Antinatal Attachment Scale*) oleh Condon yang telah diubahsuai telah digunakan untuk mengukur perapatan antinatal ibu bagi bayi yang belum dilahirkan. Manakala temperamen kanak-kanak dan perapatan antinatal ibu bagi kanak-kanak ditentukan daripada taksiran skor responden melalui *toddler Temperament Scale* (TTS) dan *Perception of Adult Attachment Questionnaire* (PAAQ). Sebelas orang responden telah dipilih untuk ditemubual secara mendalam untuk memahami fenomena yang ada dan meningkatkan taksiran mengenai hasil kajian yang didapati melalui ujian kuantiti. Hasil kajian yang diperolehi daripada pendekatan kuantitatif menunjukkan bahawa gender anak, pendapatan keluarga, latarbelakang pendidikan ibu, perapatan antinatal ibu (28.7%), dimensi aktiviti temperamen kanak-kanak (16.1%) dan sensitiviti ibu (46%) telah menyumbang secara kesignifikan (62.2%) kepada varians dalam perapatan keselamatan kanak-kanak. Bagaimanapun, dimensi temperamen yang lain (kebiasaan, pendekatan, penyesuaian, mood, intensiti, penumpuan, sikap berterusan, *threshold*, reaktiviti dan kawalan diri) tidak menunjukkan sebarang perkaitan secara signifikan dengan variabel bebas dan sandar. Walaubagaimanapun, hasil kualitatif menunjukkan terdapat pola perhubungan di antara perapatan antinatal ibu yang terbentuk melalui pengalaman ibu semasa kanak-kanak, faktor kontekstual antinatal ibu serta temperamen kanak-kanak dengan keselamatan perapatan. Keselamatan perapatan kanak-kanak di Indonesia menunjukkan kesamaan pola sebagaimana proporsi dan gaya perapatan bangsa Asia. Kajian ini telah menyokong aplikasi teori perapatan keselamatan ibu dan kanak-kanak dalam budaya bangsa Indonesia. Oleh itu, kualiti perapatan dan



kanak-kanak bertatih. Perapatan ibu-anak dan ciri kanak kanak bertatih mempunyai kesan yang mendalam dan ke atas keselamatan perapatan dan kesihatan mental kanak-kanak bertatih, kepada peringkat perkembangan seterusnya dan kesihatan mental yang kuat. Kajian ini dapat menambahkan pengetahuan kita mengenai peranan ibu dalam mempromosikan dan mengekal kesihatan dan keselamatan perapatan kanak-kanak.



ACKNOWLEDGEMENTS

First and foremost, I thank Allah the Most Beneficent and the Most Merciful. He has granted me health, and through His messenger, Muhammad *S.A.W.*, Islam and *Iman* (Islamic faith). Without the invaluable blessings this study could not possibly exist. May Allah continue His blessings us.

My utmost special and sincere appreciation go to the chairperson, Assoc. Prof. Dr. Rohani Abdullah, as well as committee members, Assoc. Prof. Dr. Tengku Aizan Hamid and Assoc. Prof. Dr. Rumaya Juhari, for their guidance, encouragement, generous support and assistance throughout my doctoral program. The appreciation is also addressed to Assoc. Prof. Dr. John Kirkland and Dr. David Bimler from Massey University, New Zealand for useful discussion. My greatest gratitude and thanks go to the respondents who have willingly participated in this study.

Lastly, but definitely not the least, I may not end my acknowledgement note without mentioning the most significant person in my life, my beloved husband, Hariyadi, who has supported, inspired, understanding and accepting me for what I am. And my Mother who always supported and prayed for me, May Allah rewards you for your generosity with happiness here and the hereafter; and continues His blessings on you and me.



I certify that an Examination Committee has met on 29 October 2009 to conduct the final examination of Titik Muti'ah on her thesis entitled "Relationships between Maternal Antenatal Attachment, Toddler Temperament, Maternal Sensitivity and Toddler Attachment Security in Yogyakarta, Indonesia" in accordance with the Universities and University Colleges Act of 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the candidate be awarded the Doctor of Philosophy.

Members of the Thesis Examination Committee were as follows:

Nobaya binti Ahmad, PhD

Associate Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Chairman)

Siti Nor Yaacob, PhD

Lecture
Faculty of Human Ecology
Universiti Putra Malaysia
(Internal Examiner)

Ma'rof Redzuan, PhD

Lecture
Faculty of Human Ecology
Universiti Putra Malaysia
(Internal Examiner)

Sarinah Low Abdullah, PhD

Professor
Faculty of Medical
Universiti Malaya
(External Examiner)

BUJANG BIN KIM HUAT, PhD

Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:



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

Rohani Abdullah, PhD

Associate Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Chairman)

Tengku Aizan binti Hamid, PhD

Associate Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Member)

Rumaya Juhari, PhD

Associate Professor
Faculty of Human Ecology
University Putra Malaysia
(Member)

HASANAH MOHD GHAZALI, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 14 January 2010



DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

TITIK MUTI'AH

Date: 8 March 2010



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LIST OF ABBREVIATIONS

SSP	Strange Situation Procedure
AQS	Attachment Q-Sort
TAS-45	Toddler Attachment Sort-45
AAT	Adult Attachment Interview
MAA	Maternal Antenatal Attachment
MAAS	Maternal Antenatal Attachment Scale
PAAQ	Perception of Adult Attachment Questionnaire
MACF	Maternal Antenatal Contextual Factors
SIWB	Spirituality Index of Wellbeing
TTS	Toddler Temperament Scale
MBQS	Maternal Behavior Q-Sort
SES	Social Economic Status
DIY	Daerah Istimewa Yogyakarta (Yogyakarta Special Region)
BKKBN	Badan Koordinasi Keluarga Berencana National (National Family Planning Coordinating Agency)
BPS	Badan Pusat Statistik (Central Bureau of Statistic)
HOME	Home Observation
CAME	Contextual Assessment of Maternal Experiences
IQR	Interquartile Range



CHAPTER 1

INTRODUCTION

1.1. Background of the Study

Indonesia is one of developing country. It has the fourth largest population in the world with a total of 231 million people (UNICEF, 2007). Its population growth rate is 1.14 and the total fertility rate is 2.3 children per woman. Children are the backbone for the nation's next generation and its future human capital. The human capital constitutes the largest share of wealth in virtually all countries wherein it accounts for 77% compared to 18% of the natural (produce) capital (Bailey, 2007). Even Iqbal (1976) highlighted that the real capital of a society or nation was the human capital (quality), depending on the high principle, the achievement and the mentality of their new generation.

To create a better succeeding generation, it depends on women who are potential to be the primary caregivers (mothers) in taking care of their children. The important role of mothers for their better future children begins from the pregnancy (Balbernie, 2001). During pregnancy, women begin to modify and rework the representations of motherhood. At the same time, mothers also form the basis of the child's future social, emotional and cognitive development. Children really need to have stable and loving relationships with their mothers. Neglected and separated children from their mothers can make them unhappy, depressed and sometimes easily panic (WHO, 1997). Therefore, child development is dependent on the mother who determines the quality of caregivers.



The early caregiving is critical in establishing a successful, mutual relationship and quality of mother-child interaction. Through the primary caregiver (mother), children learn much about the world. Motherhood can produce cognitive representation, responsiveness, structuring and mirroring of child's experiences and promoting regularity abilities (Fonagy, Gergely, Jurist & Target, 2002). These are the basic structure for physical, cognitive and socio-emotional development in the child. At this point, a maternal state of mind influences a mother's caregiving system and behavior of sensitivity and at the same time potentially affects a child's development of attachment.

Child development of attachment depends on the mother because of their (children) capabilities to develop strong and affectionate bonds or attachment to a particular object (especially mother) during the time of prenatal, perinatal, postnatal, infancy and early childhood (Cassidy & Shaver, 1999). This argument is supported by the thought of child developmentalists that children can meaningfully engage, experience, influence and represent their environments (e.g., Spodek, & Saracho, 2006; Sroufe, 1997). What a child has been experienced with her/his caregiver during his/her childhood ages would be maintained long a lifetime. This makes it is essential for mental health sustainability when a young child experiences a secure, warm and continuous relationship with his/her mother.

A secure attachment is related to many aspects of a healthy psychosocial development in further stage of a child's life. The experience of security is the goal of the attachment system and creates first and foremost a child's emotional regulation. A child's secure attachment to a primary caregiver is necessary for a

child to grow in a healthy way and for her/his further emotion, cognitive and social development. It is also as a protective factor against the development of emotional and behavioral problems and many forms of mental disorder (O'Connell, Boat & Warner, 2009; Sroufe, 1997).

Studies have revealed that infants were classified being securely attachment at one year, and would be consistent at toddlers ages (2-3 years) (Cohen, 2006). Secure toddlers are found to be more co-operative, more empathic, more socially competent, more easily in learning and exploration, and more self-confident. Compared with insecure toddlers, they are increasingly vulnerable to life's events and being in a risk state whenever interacts with other risks existing in emotional, social and physical environment.

Those secure and insecure attachments (styles) are believed to be a repeating cycle, a quality of personal attachment which parent passes on to the next generation (their children) (Bernier & Miljkovitch, 2009). Secure attachment is also a central of the cognitive development of a child, and related to the development of his/her mental abilities (Cassidy, 1990; Cicchetti, & Cohen, 2006).

The development of a child's mental ability is strongly related to the early brain development and has an impact to a child's lifelong ability to regulate thinking, feeling and behavior (Schoore, 2002). The first two years of human life is the most rapid period of brain growth. Therefore, the neurological development is susceptible to be disrupted by environmental influences throughout the prenatal period until early childhood. Moreover, during pregnancy the mother has an

intense quality of attachment that can intimate her relationship to the mind development of her unborn baby (Marshall & Stuart, 2001; Nobel, 1993). At this antenatal attachment time, there is also an interaction between a mother's psychosocial-physiological events and attachment which activates her love and cares to her child to become a '*good-enough mother*' (Rodman, 2003; Winnicott, 1962).

A '*good-enough mother*' stands in contrast with the '*perfect mother*' who tends to satisfy all the child's needs instantly and to hamper the child to develop. On the other hand, a '*good-enough mother*' has an adaptation-capability to the baby, giving it a sense of control and comfort of being connected to the mother. This can motivate mother to build the child feeling of security (Laxton-Kane, 2002) and to have an appropriate interpretation to their child's characteristics (temperament) (Priel & Besser, 2000).

The ability of mother to interpret her child's characteristic can also prevent the increasing risk of behavior problems and insecure attachment for a child with certain temperament styles. Child temperament and attachment are thought to be the major organizer of child's social emotional behavior (van Ijzendoorn, Vereijken, Bakermans-Kranenburg & Riksen-Waraven, 2004).

On the other hand, previous research done has clarified that mother's characteristics hold more important role in fostering a secure-base rather than the child characteristics in shaping the quality of attachment relationship (Van Ijzendoorn, *et al.*, 2004). It is unavoidable that each mother's mental representation

(mother's internal working model) has an effect on subsequent interpersonal relation and maternal sensitivity of her own children. Therefore, a mother is a central of an organizing framework for an understanding of a child attachment security or mental health.

In general, most parents hope for their children to be mentally healthy and have security of attachment during their development. This expectation is inevitably influenced by conditions in the environment. In Indonesia's context, the quality and level of security attachments can be significantly different from what is commonly found in Western samples.

1.2. Statement of the Problem

In the last two decades, clinical and research studies (in nursing, psychoanalysis, child development, social psychology, etc) have identified many aspects of mother-child relationship or maternal attachment. Unfortunately, there has not reported any research-papers on toddler attachment security in relation to the existence of maternal behavior and attachment starting from a conception (antenatal period).

A study on secure maternal attachment to the child's needs is considerably important as the basis of a secure toddler-mother relationship, and thus enables the child to develop positive internal working models. Becoming attached to the child and the formation of maternal attachment and behavior are interdependent coordinates in the same process, beginning during pregnancy and forward. Maternal antenatal attachment is a result of interplay between psychological and physiological events and a good predictor for toddler attachment security.

Previous researchers on the attachment and psychodynamic fields have studied and found a relationship between the nature and quality of child-mother relationship (child attachment) from the perspective of maternal attachment or mother's mental representation (e.g. Fonagy, Steele & Steele, 1991; Huang, Wang & Chen, 2004). Some others have conducted specific research studies on a maternal antenatal attachment to a postnatal attachment (Condon & Corkindale, 1997; Priel & Besser, 2000; Siddique & Hagglof, 2000; Laxton-Kate & Slade, 2002). These studies were conducted primarily for well-educated and middle-class samples in the developed countries (Western, U.S.A, etc.). They concluded that mothers who develop strong attachment to their unborn babies tend to develop their strong postnatal attachments. But up to now there have not been reported yet any research carried out on the relationships and contributions of maternal antenatal attachment to the toddler' age attachment security.

Toddler attachment behavior is constructed through harmonies' interaction between child characteristic and maternal characteristic, each of them affecting each other (Sroufe, 2000). Priel and Besser's (2000) study has shown the effect of mother's attachment on their perceptions of infant difficult temperament mediated by the antenatal maternal attachment. But the relationship between maternal antenatal attachment and toddler temperament has not been studied yet. Earlier studies (e.g. Belsky & Rovine, 1987; Berlin & Cassidy, 1999) found that child temperament potentially caused the manner in which security or insecurity was expressed. With this argument, the study on the contribution of maternal antenatal