# Parental Care and Socio-Psychological Symptoms among Malaysian Preadolescents: The Effect of Cross-Gender Parent-Child Relationship

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## 1. Background of the study

At the beginning of 21st century, the increase of female participation in the labour force is one of the signs that indicated presence of gender equality in Malaysia. Over the past decade, national statistics found that there were 47.7% of female workers in year 2003 and the number increased to 52.4% in the year 2013 (Department of Statistics Malaysia, 2014). In addition, 61.8% of female labour forces are married women in the year 2013 while there was only 59.4% of female labor force are married women in the year 2009. Concomitantly, it may influence traditional family model. Typically, the traditional notion "breadwinning fathers and caregiving mothers" has long been deeply ingrained in the family model, particularly in Asia context. Nevertheless, this notion has been challenged in view of the existence of dual-earner families. Indeed, women nowadays challenge the boundaries of their domesticity in private sphere; while men engage in more active role within the private sphere. Mothers were found to be more actively engaged in the workplace, while fathers were found to involve in child care affairs (Farre & Vella, 2007; Maurer-Fazio, Connelly, Lan, & Tang, 2009; Maxwell, Scourfield, Featherstone, Holland, & Tolman, 2012). The emerging trend in parenting has shifted the division of care provision within family. Thus, care from parents and its effect on child developmental outcomes become uncertain.

In the process of growing up, children need to accomplish more age-appropriate developmental tasks that included educational attainment and social engagement. However, parents might take educational attainment as the only achievement of their children; and neglect the importance of psychosocial development. In order to get along and adapt in the social world, psychosocial development is vital for children. Preadolescents who are well-developed in language and cognitive explore social relationship in more depth and focus on maintaining friendship. Due to school engagement, their social network also becomes broader and they are exposed to greater social challenges. Erikson (1950) stated that preadolescents are expected to build and master responsibility and attitudes toward task accomplishment independently. Preadolescents are more self-conscious on their achievement and failure along the development process. Sense of competence and industry are essential skills for preadolescents to adapt and cope with daily life challenges (Erikson, 1963).

Failure in handling developmental tasks might lead to bad experiences on difficulty situation. Therefore, parents of preadolescents need to juggle between the role of nurturer and supporter at this developmental stage. Parents need to nurture and support their preadolescent child to accomplish psychosocial developmental tasks. Parents should encourage preadolescent child to be autonomy, regulative and socially active through promoting their responsibility and social skills. Both mother and father should keep up with preadolescents' development progress and be capable to provide assistance at any time.

Empirical studies revealed that child care from parents tend to influence children development in aspect of psychological and social behaviors (Respler-Helman, Mowder, Yasik, & Shamah, 2012; Ali & Frederickson, 2011; Simon & Conger, 2007). Within the family, fathers and mothers play different parental role. Generally, it is believed that mothers who spend more time with children will bring stronger effect on children development than fathers. However, the exact fathering effect may be overlooked by the society and thus not yet fully discovered. Past research found that mothers were more involved than fathers; but, paternal acceptance was more significant to predict children functioning (Collins, Laursen, Mortensen, Luebker, & Ferreira, 1997; Forehand & Nousianen, 1993; Wierson, Armistead, Forehand, Thomas, & Fauber, 1990). Child development will not only rely on the quantity of parental involvement; but also the quality of care from parents (Amato & Rezac, 1994). Numerous studies revealed the importance of fathers' role in the family. Prior studies reported that mothers generally engage in providing care and controlling behaviour of preadolescent child; while fathers often offer affection and promote social self-worth of preadolescent child (Brooks, 2011; Dekovic & Meeus, 1997). Over the decades, studies found that fathers are more involved in physical play and leisure activities with child (Brooks, 2011; Lamb, 1977; Shulman & Seiffge-Krenke, 1997). During preadolescence, fathers expect higher level of independence from preadolescent child and apply higher level of positive discipline than mothers (Hoff, Laursen, & Tardiff, 2002; Kim, Guo, & Koh, 2010); while mothers are more protective and hold stronger emotional ties with child (Nishikawa, Sundbom, Hägglöf, 2010; Huang, Someya, Takahashi, Reist, & Tang, 1996). Previous studies also supported that mothers tend to promote emotional well-being; while fathers are more responsible on social competency among children (Conger et al. 1995; Aunola & Nurmi, 2005). Based on the results of past studies, mothers and fathers tend to behave differently, for example fathers are prone to be socializers while mothers are the caregivers. During child rearing process, it is believed that these differentiated behaviors bring distinctive effect on child development.

## 2. Overview of current study

#### 2-1. Theory application

Based on the Self-determination theory (Deci & Ryan, 1985; 2000), it is proposed that three basic

psychological needs are important elements for better human development outcomes. As one of the basic psychological needs, relatedness is essential to promote child development outcomes. Relatedness refers to individual's feelings of warm, affection and sense of belongingness with others. Relatedness can be developed from parental warmth. Care from parents provides encouragement and affection to motivate preadolescents in handling challenges and accomplishing developmental tasks. Preadolescents who obtained relatedness will be more competent in social relationship and capable to avoid difficulties symptoms, such as, problems in peer relationship, emotion and behavior. In order to promote optimal socio-psychological development outcomes, parents play a vital role to fulfill preadolescents' need for relatedness. The second proposition of Self-determination theory is the importance of care from parents on socio-psychological outcomes. This proposition asserted that extrinsic motivation occurs along the reciprocal interaction process between individual and other persons within their immediate environment. In the context of Self-determination theory, children are self-motivated to actively involve themselves in their development process, but socializers within their immediate environment will anticipate their development process beforehand. Therefore, it is proposed that parents as primary socialization agents provide proper care and nurturance to preadolescent child; thus influence their social competence and psychosocial outcomes. These two propositions explained that care from warm parents will provide needs for relatedness; thus influence socio-psychological outcomes among preadolescents. Empirical studies across the decades found that parental warmth are vital element to develop positive outcomes among children (Harlow, 1958; Slater, 1962; Rohner, 1976; Stewart, Rao, Bond, Mc-Bride-Chang, Fielding, & Kennard, 1998; Vahedi, Mostafafi, & Mortazanajad, 2009).

In addition to the role of socializers, this theory also posited that social-contextual factors, such as, social norms and beliefs, will influence the development process of a preadolescent. Fathers and mothers might practice different child care for male and female preadolescents due to the influence of their traditional perception on gender role. For example, parents expect the performance of independence from sons and prosocial from daughters. In other words, preadolescent child will also request different type of care from both fathers and mothers, such as, caring from mother and advice from fathers. Thus, Self-determination theory was applied to test the posited model that examined the effect of parental warmth on socio-psychological symptoms among sons and daughters.

## 2-2. Theoretical model on the relationship between parental warmth and socio-psychological outcomes

Over the years, parental warmth had been broadly discussed as affection, acceptance, love, involvement and caring from parents (Baldwin, 1955; Slater, 1962; Rohner, 1976; Skinner, Johnson & Snyder, 2005). Parental warmth as positive parenting dimension is responsive towards children

developmental outcomes (Grolnick, Deci, & Ryan, 1997). As aforementioned, quality of parenting is more important for children development as compared with quantity of time spending with children. Fathers as breadwinner might spend lesser time with their child than mothers. In order to build strong father-preadolescent relationship, the issue of "How father utilize their time with children" might run over the effect of "How much time that father spend with their children". Thus, it is suggested that caring is the essential characteristic of paternal warmth rather than involvement without the element of care for children. Past studies found that only paternal warmth influence psychological adjustment (Veneziano, 2000), adjustment difficulties and social competence (Chen, Liu, & Li, 2000; Grimes, Klein, & Putallaz, 2004) and youths' aggression (Veneziano, 2003) while maternal warmth is not significant contributor for these outcomes.

The traditional role of a female within family is a caregiver and nurturer who offer day-care and guidance for children. Thus, warm mothers tend to provide nurturance, sense of security, and support to their children (Campo & Rohner, 1992; Davies & Cummings, 1994). A study by Alegre and Benson (2014) revealed that maternal warmth lead to higher level of emotional security; lower level of internalizing and externalizing problems among preadolescents. With the support and responsiveness from warm mothers, children tend to have more appropriate emotional expressiveness and better emotion regulation skills. In a comparison test of the effect between paternal and maternal warmth, only maternal warmth was significantly related to emotional adjustment and depression among preadolescents when paternal warmth is taken into account (Chen et al., 2000). Past studies as discussed above revealed that both paternal and maternal warmth are significant contributors for preadolescents' developmental outcomes. Due to recent changes in parenting dynamics between fathers and mothers, it is crucial to disentangle the difference of care provided by fathers and mothers and its effect on children development. Thus, further study is needed to distinguish the effect of paternal and maternal warmth on the development of socio-psychological symptoms, especially for preadolescents who are experiencing social challenges in this stage.

During preadolescence, successful psychosocial development is determined by their development in social roles and skills, sense of industry and responsibility for their personal behaviour (Bigner, 2002). In other words, preadolescents who failed in accomplishing developmental tasks are more prone to have low level of self-efficacy and self-esteem, afraid of social participation, and even psychological problems. Thus, social competence plays a vital role for building healthy psychological development. Social competence can be defined as individual's ability to use suitable emotional and behavioural strategies in order to obtain social goals; build and maintain social relationship (Odom, McConnell & Brown, 2008; Rubin, Bukowski & Parker, 2006). Socially competent preadolescents can adjust themselves in social challenges; and can better engage in social relationship through showing their cooperation and caring on others (Mirabile, 2010; Parker,

Rubin, Erath, Wojslawowicz, & Buskirk, 2006). With high level of social competence, confident preadolescents can attain a sense of accomplishment and positive self-feelings (Springer & Philips, 1997). Parents provide the assistance and guidance to their preadolescent child during this social interaction process. Preadolescents with warm parents feel more secure and can trust others; thus they will be more active in social participation and formation of social relationship. Past studies showed parental warm was positively predicted social competence among children (Lengua, Honorado & Bush, 2007; Zhou, Eisenberg, Losoya, Fabes, Reiser, Guthrie, & et al., 2002).

Difficulties symptoms refer to children's problems in aspects of behavioural, emotional and peer relationships (Goodman, 1997). Preadolescents who experienced high level of difficulties symptoms have higher tendency to meet mental health disorders (Goodman, 1997; Goodman, Ford, Simmons, Gatward, & Meltzer, 2000). During this development stage, failure in accomplishing developmental tasks will increase victimization among preadolescents. In addition, they might experience greater challenges and exposure to risky behavior during the transition process from preadolescence to adolescence. Occurrence of difficulties symptoms caused children to be more vulnerable to developmental risks in future (Kessler, Davis, & Kendler, 1997). In the developmental stage, encouragement and care provided by warm parents are important to support preadolescents in handling difficulties and social problems. Previous studies also revealed that preadolescents who received parental warmth are less likely to experience difficulty symptoms, such as, hyperactivity and problematic behavior (Buschgens, van Aken, Swinkels, Ormel, Verhulst, & Buitelaar, 2010; Skinner et al., 2005).

Therefore, social competence and avoidance of difficulties symptoms are important to ensure preadolescents' healthy development (Lee, Hankin, & Mermelstein, 2010; Mirabile, 2004). As discussed above, parents who are primary socializers for preadolescents have significant impact on preadolescents' socio-psychological development. Thus, this study aimed to examine the relationship between paternal/maternal warmth with socio-psychological outcomes among preadolescents.

## 2-3. Gender role of preadolescents and cross-gender parent-child relationship

Gender of preadolescents and parents might influence children developmental outcomes. Prior study showed girls are more likely to engage intimate parent-child relationship than boys (McGue, Elkins, Walden, & Iacono, 2005). This may be explained by the inclination of girls dealing with people; while boys are more object-oriented (Galambos, Berenbaum, & McHale, 2009). Due to traditional gender role and stereotype, mothers and fathers will perform gender-differentiated behaviour to male and female preadolescents. Past studies reported that care from parents varies due to children's gender (Molden, Hipwell, Vermeiren, & Loeber, 2011; Gryczkowski, Jordan, & Mercer, 2010; Young, Miller, Norton, & Hill, 1995). In specific, mothers and fathers tend to provide various types and levels of child care to daughters and sons.

Regarding the gender of parents and preadolescents, the issue of cross-gender parent-child relationship also arises. Result of cross-gender parent child relationship study can provide clearer pictures for explaining the father-daughter/mother-son relationship and its effect on children development. Prior studies also revealed the cross-gender parent-child relationship and its effect on socio-psychological symptoms among male and female preadolescents. A study in Thailand by Putnick and colleagues (2012) found that fathers to girls and mothers to boys provide higher level of warm as compared with fathers to boys. Dissatisfaction in father-daughter relationships caused negative psychosocial outcomes for female adolescents (Coley, 2003). In addition, daughters who perceived low level of paternal acceptance are more likely to involve in behavioural problems and depression (Maggio & Zappulla, 2014; Ramírez Garcia, Manongdo & Ozechowski, 2014). Moreover, girls with involved fathers will be more self-confident and less likely to experience negative emotions (Brody, 1997). A study by Webster, Low, Siller and Hackett (2014) also found that paternal warmth contributed to higher level of social competence for young girls, but not boys.

In terms of maternal warmth, past study reported maternal warmth only showed significant effect on socio-emotional functioning among boys (Davidov & Grusec, 2006). A study by Trentacosta and colleagues (2011) also found that boys with warmer mothers tend to engage better peer relationship as compared with boys with lower level of maternal warmth. In other study, boys who experienced maternal harsh practices are more vulnerable in depression as compared to girls (Manongdo & Ramirez Garcia, 2007). However, a study by Marshal and Chassion (2000) found that male preadolescents with supportive mothers are more susceptible in peer influence of substance abuse compared to female preadolescents. The trends of cross-gender parent-child relationship transformed the concept of traditional gendered parenting practices and effects, such as, close father-son relationship, but no intimate father-daughter relationship. Care from mothers may bring bigger effect on sons' development, but not daughters; while fathers also contribute significantly to certain developmental outcomes among daughters only. Thus, it is essential to examine cross-gender parent-preadolescents relationship and its effect on socio-psychological symptoms among preadolescents.

## 2.4. Research objectives

Based on the discussion above, fathers and mothers who provide warm care bring distinctive socio-psychological outcomes for their preadolescent child. The rise of father involvement in child care also alters the traditional concept in child care. In addition, gender of preadolescent also moderates the relationship between parental warmth and socio-psychological outcomes. However, limited studies on related field were conducted within Malaysia context. The issues arise some research questions which are 1) To what extent paternal and maternal warmth significantly related to socio-psychological outcomes among Malaysian preadolescents, 2) Do the contributions of paternal

and maternal warmth on socio-psychological outcomes vary across preadolescents' gender. Therefore, current study aimed to examine the 1) contributions of fathers and mothers and, 2) effect of cross-gender parent-child relationship on socio-psychological outcomes among Malaysian preadolescents.

## 3. Methodology

## 3-1. Respondents and location

A total of 852 preadolescents aged between 9 and 12 (M= 10.96; SD= .60) and their parents were randomly selected as respondents by using Multistage Probability Proportionate-to-Size Cluster sampling technique. In order to obtain the ethnic balance, preadolescents from three main races (e.g., Malay, Chinese and Indian) in Malaysia were recruited as respondents. Respondents were recruited from sixteen Malay-medium, six Chinese-medium and six Tamil-medium primary schools from three states (Selangor, Kuala Lumpur and Perak) of Malaysia. Only one class of students was selected as respondents from each school.

Respondents for current study consisted of 350 (41.08%) males and 502 (58.92%) females. Most of the respondents are Malays (n= 410, 48.12%), followed by Chinese (n= 249, 29.23%) and Indian (n= 193, 22.65%). Based on the collected data, fathers aged between 29and 68 years old; while the age range of their mothers were between 27 and 63 years old. For employment status, 752 (88.26%) fathers were employed as full time workers or self-employed; only 338 (39.67) mothers were employed as full time workers and 364 (42.7%) were housewives. A total of 277 (32.5%) fathers and 317 (38.1%) mothers reported 11 years of formal education and graduated with Malaysian Certificate of Education (secondary school) as their highest education level; 197 fathers and 193 mothers graduated from advanced diploma, degree or postgraduate level.

## 3-2. Data collection procedures

Self-administered questionnaire was used to collect information from the primary school students and their parents. To increase respondents' comprehension, the questionnaire was prepared in both English and respondent's mother tongue language (i.e., Malay, Chinese or Tamil). Prior to data collection, official consent was obtained from the Ministry of Education, the State Education Department, and the school headmasters. Data collection was conducted during class periods and the trained enumerators were also present at the site to provide assistance to respondents. Respondents were given 35 to 45 minutes to complete the questionnaire. To collect parents' data, preadolescent respondents were asked to hand over the envelope which attached with parent version of questionnaire, explanation sheet and consent form to their parents. School teachers provided the assistance in collecting the parent-version of questionnaire from preadolescent respondents.

Respondents were informed that the anonymity and confidentiality are guaranteed.

## 3-3. Instrument Translation

The selected instruments for the current study were originally prepared in English language. In order to increase the respondents' comprehension on questionnaire, original instruments were translated into three languages which are Malay, Chinese and Tamil language with the permission from authors. Translation work was conducted with few procedures. First, experts in research related field translated the questionnaires from English language to the targeted languages (i.e., Malay, Chinese and Tamil). Second, back translation procedures were implemented to ensure the identical meaning of translated questionnaire. Third, three focus groups which consisted of 5 Malays, Chinese and Indians respectively were formed to revise the translated questionnaires in the aspects of understanding, cultural appropriateness, language clarity, and relevancy to respondents' experience in real life situation (Haynes, Richard & Kubany, 1995; Rubio, Berg-Weger, Tebb, Lee & Rauch, 2003; Vogt, King & King, 2004). The focus group members were undergraduates and post-graduate students who studied in related field. Then, leader of focus group discussed the revised questionnaires with researchers. Lastly, the revised questionnaires were distributed to selected respondents.

## 3-4. Instruments

Parental warmth. Paternal and maternal warmth were measured with warmth subscale from Children version of Parents as Social Context Questionnaire (PASCQ) (Skinner, Johnson & Synder, 2005). This subscale evaluated the extent to which preadolescent respondents' perceived of affection, caring and involvement from mother and father with 4 items for each measurement. Respondents responded the items with four-point likert scale (1=Not at all true, 2=Not very true, 3=Sort of true, and 4=Very true). Examples of items are "Mother/father let me know she/he loves me" and "Mother/father enjoys being with me". Higher average scores indicated greater level of paternal/maternal warmth perceived by respondents.

Difficulties symptoms. Difficulties symptoms were assessed by summing up the scores of emotional symptoms, conduct problems, hyperactivity and peer problems subscales from Strength and Difficulties Questionnaire (Goodman, 1997). Difficulties symptoms reflected the level of psychological difficulties experienced by preadolescent respondents. Each subscale has 5 items and respondents need to respond their presence of specific behaviour over the last six month with 3 point Likert scales (0=not true, 1=somewhat true, 2=certainly true). Measurement of emotional symptoms was used to assess emotional problems, such as I worry a lot; conduct problems used to evaluated their misconduct and temper, such as I am often accused of lying or cheating;

hyperactivity subscale represented restless and inadequate of attention, such as I am easily distracted; and peer problems examined relationship problem between preadolescents and peer, such as other children pick on me. Higher scores represented high level of difficulties symptoms experienced by respondents.

Social competence. Eighteen items of social competence subscale of Individual Protective Factors Index (Springer & Phillips, 1997) was used to evaluate the preadolescents' social ability to engage in interpersonal relationship that included assertiveness, confidence and cooperation. Assertiveness assessed the respondents' ability in asking help or express own feeling without shyness, such as "If I disagree with friends, I tell them' and "If I don't understand something, I will ask for an explanation". Confidence scale was used to evaluate respondents' sense of belonging and companionship to society. Examples of item are "I get along well with other people" and "It is hard for me to make friends". Cooperation subscale measured their cooperative manner and willingness on social engagement, such as "Being part of a team is fun", and "It is important to do your part in helping at home". Preadolescents responded items with four-point likert scale (1=strongly disagree; 2=disagree; 3= agree; 4=strongly agree). Higher average scores represented higher level of social competence.

## 3-5. Data Analytic Plan

Structural equation modelling with Analysis of Moment Structure (AMOS version 20) used to examine the extent to which maternal and paternal warmth influence social competence and difficulties symptoms and how preadolescent gender differentiate the path of parenting on social competence and difficulties symptoms. Prior to model testing, confirmatory factor analysis (CFA) was applied to confirm and verify all of the variables to get better model fit. In order to determine model fit, fit indices in this study comprised of chi-square estimate of model fit, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Normed Fit Index (NFI) and root square error of approximation (RMSEA). According to Hu and Bentler (1999), acceptable values for CFI, TLI, and NFI is 90 and above; while RMSEA value need to be below .060. In order to test the gender effect on the relation of paternal/maternal warmth on social competence and difficulties symptoms, gender have been accounted in multigroup analysis.

## 4. Results

## 4-1. Preliminary results

Exploratory Data Analysis was initially conducted to examine preliminary assumptions such as normality, linearity, and homoscedasticity using Predictive Analytics Software (PASW version 20). Exploratory Data Analysis was executed to meet the data analysis assumptions. Based on the results,

all the preliminary assumptions were met.

Descriptive analysis was implemented to describe the levels of paternal/maternal warmth, social competence and difficulties symptoms. Results of descriptive analysis showed that the average scores of paternal and maternal warmth perceived by preadolescent respondents were 3.442 (SD= .583) and 3.47 (SD=.575) respectively; while scores ranged from 1 to 4. After deleted 5 items that followed by Confirmatory Factor analysis, the average scores of social competence was 3.282 (SD= .385) while the minimum and maximum scores were 1.70 and 4.00 respectively. After the items were deleted, the mean scores of difficulties symptoms was .481 (SD= .301); while minimum and maximum scores in the current study were 0 and 1.50. All of the variables have acceptable skewness and kurtosis values. Thus, data was normally distributed.

Table 1: Descriptive analysis on the level of paternal/maternal warmth, social competence and difficulties symptoms (N=852)

Variable	Mean	SD	Minimum	Maximum	Skewness	Kurtosis
Paternal Warmth	3.442	.583	1.000	4.000	-1.377	2.008
Maternal Warmth	3.471	.575	1.000	4.000	-1.456	2.224
Social competence	3.282	.385	1.700	4.000	479	.334
Difficulties Symptoms	.481	.301	.000	1.500	.806	.353

*Note.* SD= Standard deviation

## 4-2. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was applied to test the construct validation of the study variables (Harrington, 2005). Both of the paternal and maternal warmth obtained model fit. Fit indexes of paternal warmth reported as  $X^2$  (2) = 5.105, p < .078, CFI = .996, TLI = .989, NFI = .994, root mean square error of approximation (RMSEA) = .043. Maternal warmth with 4 items also provided a good model fit with  $X^2$  (2) = 1.766, p < .414, CFI = 1.000, TLI = 1.000, NFI = .998, root mean square error of approximation (RMSEA) = .000.

For social competence with 18 items, first order analysis comprised of three factors (assertiveness, confidence and cooperation) was performed. Five items from social competence with factor loading magnitude less than .4 were omitted from the scale (Comrey & Lee, 1992; Tabachnick & Fidell, 2001). The deleted items were two items from assertiveness factor; one item from cooperation factor; and two items from confidence factor. After modification index was utilized, a good fit model provided for first order of social competence. Furthermore, second-order analysis was also performed and yielded a good model fit,  $X^2$  (62) = 165.451, p < .000, CFI = .927, TLI = .908, NFI = .889, RMSEA = .044.

In the case of difficulties symptoms, first order analysis was performed for four factors

(emotional symptoms, conduct problems, hyperactivity and peer problems). One item from conduct problems and two items from peer problems were deleted from the construct due to low factor loading magnitude. Difficulties symptoms with 17 items yield a better model fit after utilization of modification index. Thus, second order analysis of difficulties symptoms was conducted and provided a marginally fit model,  $X^2$  (114) = 301.893, p < .000, CFI = .898, TLI = .878, NFI = .847, root mean square error of approximation (RMSEA) = .044.

Prior to structural model testing, measurement model which specify the relationships between indicators and latent variable was implemented. Study variables that included paternal/maternal warmth, social competence and difficulties symptoms were included in this measurement model. Results showed a good measurement model fit,  $X^2$  (77) = 291.186, p < .000, CFI = .966, TLI = .953, NFI = .954, RMSEA = .057. Based on the model fit provided by measurement model, it was statistically proven that all of these study variables are appropriate and equivalent for the sample size in the current study. Thus, structural model can be developed to test the relationships between variables.

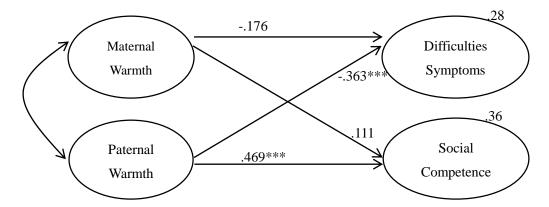
Table 2: Fit Indexes for the Paternal/Maternal Warmth, Social Competence and Difficulties Symptoms (N=852)

Scale	CFI	TLI	NFI	RMSEA	X²/df
Paternal Warmth	.996	.989	.994	.043	2.552
Maternal Warmth	1.000	1.000	.998	.000	.883
Social Competence (second-order)*	.927	.908	.889	.044	2.669
Difficulties Symptoms (second-order)*	.898	.878	.847	.044	2.648

*Note.* \*First order analysis for social competence and difficulties symptoms were performed and met model fit before second order analysis conducted.

## 4-3. Structural Model for the Parental Warmth and Socio-Psychological Symptoms

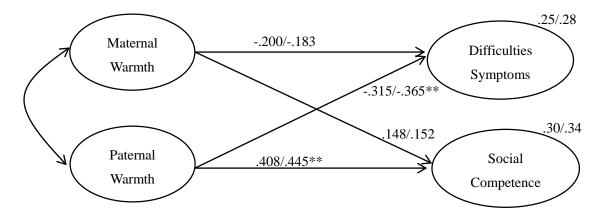
As displayed in Figure 1, the structural model yielded a good fit, with  $X^2$  (77) = 291.186, CMIN/df= 3.782, p < .000, CFI = .966, TLI = .953, NFI = .954, RMSEA = .057. Paternal warmth was positively linked to social competence (B= .469, p < .001) and negatively linked to difficulties symptoms (B= -.363, p < .001). Indicatively, preadolescents who perceived higher level of warmth from fathers tend to experience higher level of social competence and lower level of difficulties symptoms. However, maternal warmth was not significantly related to social competence (B= .111, p> .05) and difficulties symptoms (B= -.176, p> .05). In total, 28% of the variance in difficulties symptoms and 36% of the variance in social competence was explained.



[Figure 1: Structural Model for the Parental Warmth and Socio-Psychological Symptoms (N=852)] *Note.* Standardized beta values and their significance levels are given; \*p< .05, \*\*p <.01, p< .001\*\*\*

## 4-4. Multigroup Analysis

Figure 2 reported the findings of multigroup analysis for testing gender effect on the relationships between paternal and maternal warmth with social competence and difficulties symptoms among Malaysian preadolescents. The results of multigroup analysis also explained the cross-gender parent-child relationship and its outcomes. This model accounting for gender provided a good model fit, X² (154) = 412.192, CMIN/df= 2.677; p < .000, CFI = .959, TLI = .944, NFI = .936, RMSEA = .044. For male preadolescents, none of the direct path was significant. For female preadolescents, paternal warmth had significant negative correlation with their difficulties symptoms (B= -.365, p< .01) and positive relationship with social competence (B= .445, p< .01). Results can be explained that there is no gender difference on the path from maternal warmth to socio-psychological outcomes among male and female preadolescents. Based on the findings, it can imply that gender was a moderator on the relationship between parental warmth and socio-psychological symptoms. Female preadolescents who reported higher level of paternal warmth tend to experience higher level of social competence and also lower level of difficulties symptoms.



[Figure 2: Multigroup Analysis examining the gender role on the Relationship between Parental Warmth and Socio-Psychological Symptoms (N=852)]

*Note.* Standardized beta values and their significance levels are given: \*\*p <.01; Separate estimates by gender are showed as: Male/Female.

#### 5. Discussion

## 5-1. Results discussion

Initial findings reported that only paternal warmth has significant effect on social competence and difficulties symptoms among preadolescents. The results of the initial model explained that preadolescents who perceived higher level of warmth from fathers tend to report higher level of social competence and less likely to experience difficulty symptoms. In this study, maternal warmth was not a significant predictor for social competence and difficulties symptoms after paternal warmth is taken into account. These findings echoed past studies whereby only paternal warmth predicting affects socio-psychological symptoms when both paternal and maternal warmth are taken into account (Chen et al., 2000; Grimes et al., 2000). Results of the current study suggest that preadolescents may take maternal warmth for granted. Therefore, respondents might neglect or not appreciate the contribution of maternal warmth in their development.

Within multigroup analysis model, the effect of paternal warmth on social competence and difficulties symptoms was only apparent among girls, while maternal warmth was not a contributing factor for socio-psychological symptoms of both boys and girls. These results suggest that the relationship between paternal warmth with social competence and difficulties symptoms was moderated by preadolescents' gender whereby paternal warmth directly influenced social competence and difficulties symptoms among female preadolescents only. However, socio-psychological outcomes of male preadolescents were not significantly affected by paternal warmth. Result of the present study was similar with findings of past studies (Putnick et al., 2012; Marshal & Chassin, 2000). This may suggest that boys might be less engaging in parent-child relationship compared with girls. Thus, paternal warmth does not have significant effect on them.

Besides, male preadolescents may be more sensitive to other fathering practices, such as, paternal autonomy support that can offer more autonomy and freedom to them. Thus, the insignificant effect of paternal warmth in the current study does not prove that care from fathers has no impact on others development outcomes of their sons.

## 5-2. Implications and suggestions for future research

Findings from this study revealed not only the prominent role of fathers, but also shed lights on the cross-gender effect of parenting on preadolescents' socio-psychological outcomes. Interventions should strengthen the specific father-daughter relationships to enhance socio-psychological development among girls. Through the implementation of intervention, fathers can increase their interaction and involvement with their daughters, this will in turn, foster better socio-psychological development. In accordance to the Self-determination theory (Deci & Ryan, 1985; 2000), preadolescents can only achieve successful development process when their three basic needs (i.e., relatedness, competence and autonomy) are fulfilled. Parents, both fathers and mothers, need to acknowledge that preadolescent child tend to have different needs compared to younger children. Other than basic needs such as food and clothes, preadolescent child needs to receive guidance, affection and support from parents. In addition, family-centered intervention is indispensable strengthen parent-child relationship and preadolescents' to enhance socio-psychological outcomes. Development of preadolescents is directly linked with family system. Within the family system, everyone play their roles to sustain the harmonious family relationship and maintain the strong family ties. Although findings of this study revealed that only care from fathers influences child development, but mothers' contribution in child development must not be neglected. Thus, intervention should be family-centered that include both of parents and children, not just either father or mother. Family-centered interventions can strengthen family bonding and thus contribute positive impact on preadolescents' developmental outcomes.

Warm fathers were found to promote on socio-psychosocial outcomes among their daughters. However, different types of cross-gender parent child relationship and its effect on child development remained unknown in recent research field. Future research can examine other types of cross-gender parent-child relationships that contribute to socio-psychological symptoms for both boys and girls. In order to find out specific parental factors on child development outcomes, future research can also highlight the different role of fathers and mothers.

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## 7. References

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