

# PSYCHOLOGICAL STRESS IN THAI MOTHERS OF CHILDREN WITH COGNITIVE DISABILITIES: THE PREDICTORS AND CONSEQUENCES OF COPING STRATEGIES AND PERCEIVED CONTROLLABILITY

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**Abstract:** The main objective of this study was to investigate the effects of personal and environmental factors on maternal stress, being mediating by perceived controllability to cope with emotion and problems of life situations, on Thai mothers of children with cognitive disabilities. Total sample of participants was 800 Thai mothers, in Thailand. Data for the research were collected using a questionnaire that consisted of the following standardized scales, Perceived Stress Scale (PSS), Coping Inventory for Stressful Situation (for problem & emotion) focused coping (CISS), Locus of Control Scale (LOC), Self- Compassion (SC), Self – Efficacy (SE), Multidimensional Scale of Perceived Social Support (MSPSS), Child Behavioral Scale (CBS), and Controllability Scale (CAS). In order to meet the objective of this study, an indirect model was designed and conducted via structural equation modeling (SEM), employed to measure the three nested (direct, indirect and full path) models. Evaluation and comparison of the fit of these three nested models posited to the full path models were more parsimonious and better fitting than the others path models. The results revealed that children’s behavioral problems directly, self- compassion, self- efficacy direct and indirectly, social support, indirectly affected to maternal stress by mediating perceived controllability and coping strategies.

**Keywords:** Maternal stress; coping strategies; children’s behavioral problems and controllability

## Introduction

Psychologists and researchers have interested to understand the factors that influence parenting behaviors for the last decade. Although there are several

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factors that may contribute to dysfunctional and nonproductive outcomes on parenting characteristics, parental stress has consistently been related to the increasing risk of child maltreatment and, eventually, to the development of childhood/adolescent psychological cognitive and behavioral disorders (Abidin, 1995). Parents particularly, mothers' stress can result from a plethora of psychological factors that are frequently changing, such that, parents' personal and environmental factors, the child's behavior issues, and other component life stressors. There is strong evidence that parents and particularly mothers distorted thinking, feeling, and behaving plays a significant role in the development of general stress and other psychological problems, Lazarus & Folkman (1984) stated, "Stress resides neither in the situation nor in the person, it depends on the transaction between the two", the transaction of children with cognitive disabilities would be the foundation on parental stress.

Psychological distress of parents / mothers remained view as an emotional disturbance that might impact the parent's everyday life functioning that was characterized by symptoms of depression, anxiety, and fatigue. These symptoms might be twisted with somatic symptoms that were wide-ranging across parental life values of those who struggle with psychological illnesses (Kleinman, 1991; Kimayer, 1989).

### **Objective**

The current study aims to examine the direct and indirect effects of personal attributes (external locus-of control, self-compassion, and self-efficacy) and environmental attributes (social support and child behavior problems) as predicting factors being mediated by perceived controllability, and problem and emotion coping strategies, and stress outcome in Thai mothers of children with cognitive disabilities, in Thailand. The expected outcome was to understand the effects of mediating perceived controllability and coping mechanisms on maternal stress.

### **Literature Review**

Psychological distinctive of stress emphasize the awareness and assessment by individuals of their available personal factors and environmental factors resources to cope with their experiences of life's situations. Individuals would experience stress when they consider that environmental demands exceed their capability to cope, followed by negative emotional response (Cohen et al., 1995). The stress perceived by individuals from their own evaluation of the situation is called perceived stress. In other words, perceived stress stems from the mother's own understanding of the meaning of their environmental situations and the assessment of available coping resources, to cope with their

life events. Mothers of children with cognitive disabilities experience stress, often related to the severity of the children's behavior.

Children's behavioral problems and their severity is often the strongest predictor of parental stress. Moreover, it has been suggested that the experience of stress is related to mothers and/or caregiver perception of the stressful events and whether coping strategies could be used effectively to manage stress. The use of positive coping strategies has been shown to lower the stress level in parents of children with cognitive disabilities (Jones, 2004). Lazarus and Folkman (1984) believed on coping mechanism and effectiveness to life situations, that, individuals with problem-focused attempts to reduce stress by shifting the problem or situations to happiness. Versus, emotion-focused coping caused by the negative life situations, it seems parents are referring to avoidance coping, which not only remain the negative life situations, but also stressful life that causes psychological problems (Lazarus and Folkman, 1984).

Generally, coping has two broad accepted functions, regulating stressful emotions and changing the problem causing the distress (Lazarus, 1986). Specially, to mothers tend to confusion through stressful times in the form of cognitive and behavioral coping efforts, in order to carry out a situational change or to alter one's emotions. This includes managing different kinds of stress, regulating emotions, dealing with interrelation conflicts and the ability to solve their problems effectively (Connor, 2010). Therefore, coping strategies are central to everyday functioning, as it aids parents' / mothers' life in various ways. It was accepted that coping was a major factor in the relation of psychological stressful life events (Folkman et al., 1986).

#### *DSM-5 for Cognitive Disabilities*

Cognitive Disabilities overlap with Intellectual disabilities, the concept of cognitive functioning involves memory impairment, the disturbance of the processes by which an individual perceives, registers, stores, retrieves, and uses information in at least one of the cognitive functions (e.g., Aphasia, apraxia, or agnosia that result in changes on function and behavior). A person with a cognitive disability has greater difficulty with mental tasks in comparison to normal children according to the American Psychiatric Association (2000).

There are four categories of cognitive disabilities or impairment: Mild, Moderate, Severe, and Profound (DSM-5 APA, 2013). Mild cognitive impairment (MCI) is the stage between the expected cognitive decline of normal ageing and the more serious decline of dementia. It can involve

problems with memory, language, thinking and judgment that exceed normal age – related declines (Shekelle et al., 2001).

### *Maternal stress*

Stress is an unpleasant, mindful emotional experience perceived by parent when a condition of imbalance raises amongst of life situations demands and possessions which limit of parenting effort and abilities from achieving projected tasks and requires the parent to use his/her capabilities and resources with controllability to overcome this situation, and to have major alterations in his/her lifestyle. Parents' unpleasant life events might lead them to have feelings of anxiety, depression, anger, helplessness, sadness, and excessive anxiety that cause tiredness and weakness. Stress mainly would affect mothers' physically, mentally, emotion and behaviorally. Theories that focus on the comprehensive relationship amongst external demands (stressors) and biological processes (stress) could be gathered in to two different categories: approaches to 'systematic stress' and procedures to 'psychological stress' developed with the field of cognitive psychology as defined by (Lazarus, 1966a & 1991b; Lazarus & Folkman, 1984; McGrath, 1982).

*Psychopathological outcome of stress.* Overall referring to psychopathological term, some studies specified that mothers' high levels of negative affect behavior as a major risk factor for children with cognitive disabilities and behavioral problems, from parental development through childhood and into adolescence (Arteche & Murray, 2011; Cooper, Fearn, Willetts, Aeabrook, and Parkinson, 2006; Elgar, Mills, McGrath, Waschbu, 2011; Zahn – Waxler et al., 2002). For example, parental psychological issues; children with depressed mothers demonstrated greater levels of behavioral problems with peers and poor academic performance, as well as, a higher evidence of clinical expressions, such as mood congruence disorders, excessive worriedness, stresses, anxiety and depression, including disruptive behavioral disorders (e.g., Cooper et al., 2006; White & King 2011).

*The biological perspective of stress.* Focuses on the physiological response to physical and psychological demands (Cohen et al., 1995). The recurrent and persistent activation of the sympathetic – adrenal medullary system (SAM) and the hypothalamic – pituitary – adrenocortical axis (HPA) are two interrelated bodily reactions to emergency situations which are viewed as important sources for the development of physical and psychological disorder. The bodily reactions by SAM activation could be seen in the 'fight – or – flight' response, also called the 'fight–or- flight–or-freeze' response (Couldnon, 1929). This reaction leads to an increase in the excretion of the hormone epinephrine, blood pressure, heart rate, and sweating.

*Coping.* In psychology, coping means to invest one's own conscious and effort to solve personal and interpersonal problems in order to control, minimize or tolerate stress and conflict. The term coping generally refers to adaptive (constructive) coping strategies, which reduces stress. Folkman and Lazarus defined coping as continually changing cognitive and behavioral efforts such as consciousness and awareness to manage specific external or internal demands of stressful life events. Coping style is closely connected with body–mind health. Task–oriented coping is related to greater happiness, while emotion- and avoidance- oriented copings are usually related to unhealthy psychological phenomena (Endler & Parker, 1999). Coping strategies are theoretical to have two major meanings, the first is to attain problems, which are producing stress to an individual and the second is to manage the emotions, which are associated with these stressors.

#### *Problem - Focused Coping*

'Problem–focused coping strategies' is a mediator factor in this study, it is employed when an individual attempt to eliminate or lessen the source of an exciting stress (Lazarus, 2006). Type of coping strategy is direct, and contains decreasing, adjusting, or eliminating the stressor itself. Furthermore, it is directed at remedying a threatening or harmful external situation (Endler & Parker, 1990a), in effect, problem–focused coping. In this study, problem–focused coping is measured by means of the Coping Inventory for Stressful Situations (CISS) as developed by Endler and Parker (1990).

*Emotion–focused coping strategies.* It is focused in the direction of regulating the emotion of the individual under stress and might be variously directed at expressing, dealing, or palliating an emotional response to a threatening, harmful external situation (Endler & Parker, 1990a). Additionally, this type of coping style is directed at changing the way individuals react to a negative outcome emotionally.

#### *Perceived Controllability (PC)*

Controllability awareness focused on individual differences imitation on stressful events, tolerance, and his / her relationship to psychological stress. First of all, it is essential to parents / particularly mothers being aware of their negative life situations and the cause of stress, while they realized the causes, they might find or create appropriate family roles or patterns of behavior, by which parents fulfill their family needs (Epstein, Bishop, Ryan, Miller, & Keitner, 1993) to cope life's negative situations and control (Lazarus & Folkman, 1984). More clearly, Lazarus (1993) identified that parents' low perceived ability to coping their stressful life situations is associated to the high-quality of managing approaches like avoidance to

involve the stressful life events, destruction, or denial, rather than coping procedure that solves the problems and changing environmental situations. It was discovered that when people felt capable, they tend to act straight on the problem and when they felt incompetent, they temperately used avoidance coping strategies, which is illustrated in self – efficacy theory (Bandura, 1997).

#### *External Locus of Control*

External locus-of-control is related to the parent's ability to perceive the relationship between actions and resulting outcomes. External locus-of-control is related to the parent's belief in fact, chance, and luck (Rutter, 1966). As the ideologies of the locus-of-control, it has been defined that the tendency of mothers' personal characteristics, has been to carefully control, occur internally within themselves. Mothers' high locus-of-control and low locus-of-control depends on mothers' beliefs and abilities, even self-awareness to their life's situations (Julian Rattlebrain, 1954). For the survey questionnaire, the Locus of Control Scale (LOC) was used for the assessment developed by Rotter (1975). Locus – of – control was measured by means of the mothers Locus of Control (LOC). The Rotter External locus of control scale is comprised of 29 items, forced choice statements, of which 23 items were designed to be used in analysis. The authors included 6 additional statements in the scale as a way to prevent bias (Rimmerman,1992).

#### *Self-Compassion*

Self-compassion is mothers' personal factors as a predictor variable. The statement of self- compassion as encompassing parents'/particularly mothers' self – kindness, mindfulness, and awareness of collective humanity. Self- compassion is associated with a mother's reacting with kindness and understanding when experiencing negative events. Mindfulness is related to mothers holding emotions in relation to viewing one's life as part of the superior anthropological experiences and realizing that everyone goes through difficulties (Adam, Leary, 2007). For the survey questionnaire, Self- Compassion Scale (CS) was used for assessment that was developed by Neff (2011). Research supports the notion that self-compassion is related to the care-giving system and early childhood interactions. People who lack self-compassion are more likely to have critical mothers, while the opposite is true for those with higher levels of self-compassion (Neff & McGehee, 2010; Wei, Liao, Ku & Shaffer, 2011).

### *Self-Efficacy*

It is the “belief in one’s capabilities to organize and execute the courses of action required to manage prospective situation” (Bandura, 1994, p. 71). In other words, it is an individual’s belief in their innate ability to achieve goals. Bandura (2006) described these beliefs as determinants of how people think, behave, and feel. Mothers’ high quantity effort of self-efficacy actions constantly could help them to have less distress, moreover, having resolution in the face of difficulty, thought arrangements, stress level and level of completion flourished to happiness life, based on Martin Seligman (2002) theory authentic happiness and overcoming to life difficulties and achievement. General Self- Efficacy scale was used for the assessment of self-efficacy developed by Schwarzer and Jerusalem (1995).

### *Social Support*

Social support definition is the perception and actuality that one is cared for, has assistance available from other people, and most popularly, that one is a part of a supportive social network. These supportive resources could be emotional, informational, companionship, tangible, or intangible (Gurung, 2006). Social support is considered in a variety of social relationships that have consequences on the performance of an individual (Glanz, Rime & Lewis, 2002). The psychometric proportion of ‘Multidimensional Scale of Perceived Social-Supports’ (MSPSS) is used in the original scale (MSPSS) developed by Zimet, Dahlem, Zimet, and Farley (1988). It is comprised of 12 items. One of the selves-report questionnaires is considered easy to administer. It aimed to measure the respondents’ beliefs about the level of social support they perceived from three sources.

### *Child Behavioral Controllability*

According to Lazarus and Folkman (1985), parental attributes about the causality of children’s behavioral problems involve the dimensions of locus, controllability, and stability. Locus refers to beliefs that the cause of the child behavior is because of characteristics that are internal to a person versus external stimulus. To assess appraisal of control on a child’s problem or situation, parents/mothers should answer this question, ‘How much control did you have over whether this event happened?’ Participants rated perceived control using a 6 – point Likert – type Scale ranging from 1= (No Control) to 6 (Complete Control). The previous researchers have used similar questions for assessing the participants’ control and have demonstrated that this method of assessment control has high associations with other instruments of perceived control (Thurber & Weisz, 1997).

## Method

### *Participants*

The participants of the study consisted of 800 Thai mothers of children with cognitive disabilities whose age ranged from 1 to 17. Total one thousand questionnaires were distributed. Some questionnaires were uncompleted. The whole sample of population were (n= 800) only Thai mothers of children with cognitive and behavioral problem in Thailand. The selected data from mothers of children were from different organizations such as, foundation art school, special school, tutorial school and others specified (just stayed at home). Participants' demographic results were, their age ranged from ranged from 23, 4 % to 58, .6 %, with the mean age of 40.5% participated in this stage of the study. Their education percentage was for under diploma (1 %), for diploma (11%), for college (73.5 %), for graduate (14.8 %), and for others specify (.4 %). Their jobs were housewife (19.9 %), employee (73.9 %), others specify (6.2 %), Monthly income amount (.6 %) it means that mothers were working but they were not mentioned their income level, and other specify (99.4 %) means mothers were having family business or under family support and about their marital status, single mothers (31.3 %), live with spouse (66.6 %), others specify (2.1%).

### Material

The study employed a nine- part self-administered questionnaire. Part one consisted of a research-constructed items designed to assess respondents' demographic characteristics. Part two consisted of translated items from English to Thai version, 10-items Perceived Stress Scale (PSS; Cohen, 2012; Storch , 2006; Kamarck, and Murlstein, 1983), total 32- items(16-items problem-focused and 16-items emotion- focused) Coping Inventory for Stressful Situation (CISS; Endler and Parker, 1990), 23-items external Locus of Control (LOC; Rotter, 1972) , 12-items Self- Compassion (SC; Neff, 2011) ,10-items Self-Efficacy ( SE; Schwarzer and Jerusalem , 1995) , 12-items Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet , and Farley , 1988) , 15- items Child Behavioral Scale (CBS, Robert Goodman, Renfrew and Mullike, 2000) and 15 Controllability Scale ( CAS; Thurber and Weisz, 1997), among Thai mothers of children with cognitive disabilities and behavioral problems.

### Results

Structural Equation Modeling (SEM) was employed to test the indirect model of the current study. The association between mothers' personal factors (external-locus of control, self-compassion, and self-efficacy), and environmental factors (social support and children's behavioral problems) by mediations variables perceived controllability, problem and emotion focused

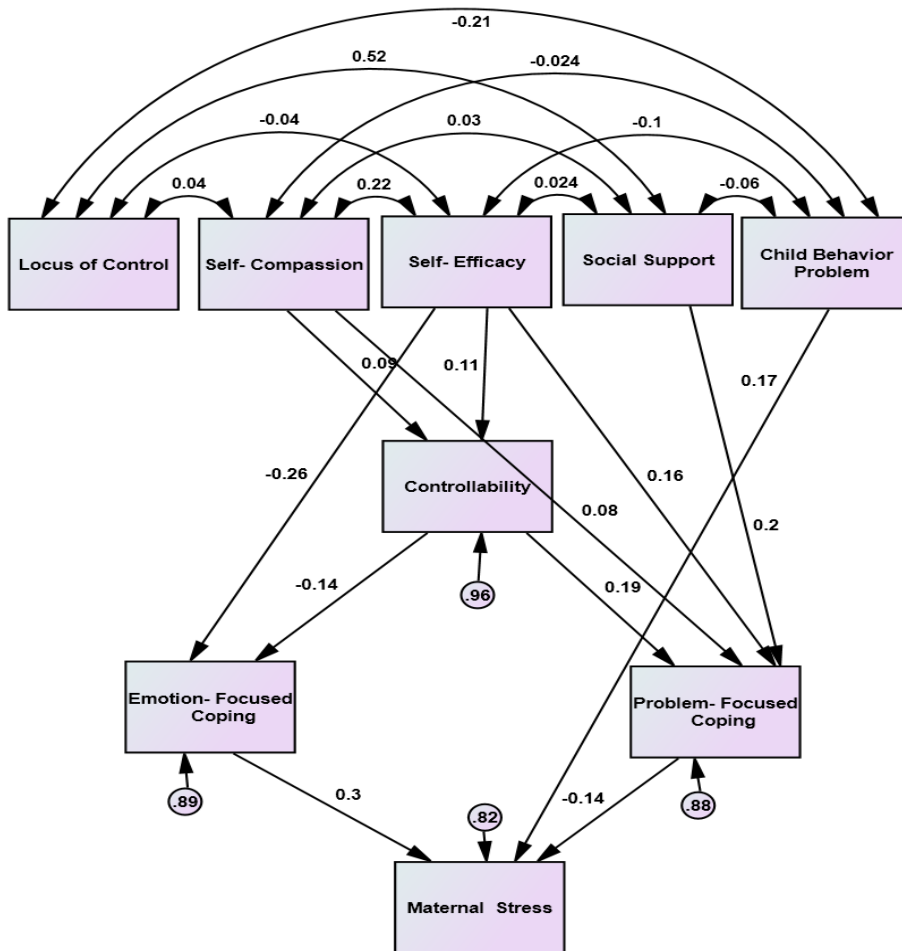


coping strategies on criterion variable maternal stress. The indirect mediation path model hypothesized that the self-compassion and self-efficacy and environmental factors social support indirectly association to criterion variable maternal stress by mediating controllability, problem, and emotion focused coping strategies. Such that, the higher they rated self-compassion and self-efficacy the higher was perceived controllability and problem-focused coping, and the low emotion-focused coping, and the higher they perceived social support the higher perceived problem focused coping. Subsequently resulting in their lower reported the level of criterion variable maternal stress.

The selected models fit indices were chi-square goodness-of-fit value for nine-factor model is statistically significant,  $\chi^2 (df = .465) = 9484.548, p < .001$  suggesting that the co-variance matrix for this posited model was not fit the sample co-variance matrix well.

However, the (Incremental Fit Index- IFI, Tucker-Lewis's index -TLI, Comparative Fit Index -CFI) were all above 0.90 (range; 0.910 – 0.924). While Baumgartner et al. (1996) recommended that a GFI with value greater than (0.8) as acceptable. The result of the Goodness-of-Fit Index – GFI was 0.872 and above, which were in the acceptable range of 0.8 as suggested by Baumgartner et al. (1996). These fit indices indicate that the 9-factor model provided a very good fit relative to its null or independence model (i.e., the posited model represented between 91% to 92.3% improvement in fit over its null or independence model) and support the hypothesized structure of the posited 9-factor model. The RMSEA value of 0.062 was within the range of dim acceptable as suggested by Browne and Cudeck (1993) and indicates that the model fits the population covariance matrix well.

While the aforementioned fit indices could be used to evaluate the adequacy of fit in CFA, it must be noted that this was only one aspect of model evaluation. As pointed out by Marsh and his colleagues (e.g., Marsh, 1996; Marsh & Balla, 1994; Marsh, Hau, & Wen, 2004), model evaluation should be based on a subjective combination of substantive or theoretical issues, inspection of parameter estimates, goodness-of-fit, and interpretability. Figure 1 presents the indirect full-path model together with the significant standardized regression coefficients ( $p < .05$ ).



**Figure 1. Full - path model (full mediation) with significant coefficients.**

In the indirect model in mediation section, it was evident that two predictor variables of personal attributes (self-compassion, self-efficacy), and from environmental attributes (social support and child behavioral problems) factors were affected to criterion variable maternal stress through mediating effect of controllability, problem focused coping and emotion focused coping strategies, effects to criterion variable maternal stress, respectively. Self-efficacy has indirect effect to the first mediator controllability ((Beta = 0.11,  $p < .05$ ), so, the higher participants rated level of self –efficacy, the higher their reported level of controllability. Furthermore, self – efficacy was affected to second mediator’s emotion – focused coping (Beta = - 0.26,  $p < .05$ ), thus, the higher participants rated level of self –efficacy, the lower their reported level of emotion focused coping. Also, emotion focused coping was positively

effect to maternal stress (Beta = 0.3), the higher participants rated the level of mediator factor emotion focused coping the higher they reported the level of their maternal stress, respectively. Also, self – efficacy was affected to mediator problem focused coping (Beta = 0.16,  $p < .05$ ), thus, the higher participants rated level of self- efficacy, the higher their reported level of their problem focused coping. Subsequently self – efficacy was indirectly affected to criterion variable maternal stress through three mediators' (controllability, problem focused coping and emotional focused coping strategies), respectively. Consequently, through first mediation controllability and second mediations problem focused coping and emotion focused coping affected to criterion variable maternal stress reduction.

Self- compassion had indirect effect on perceived controllability (Beta = 0.09,  $p < .05$ ), the high participants rated level of self – compassion, the higher they reported their level of controllability. Self - compassion effect on the second mediation factor, such as, problem focused coping (Beta = 0.08,  $p < .05$ ), the higher participants rated level of self – compassion, the higher they reported their level of problem focused coping. So, self – compassion through problem focused coping affect to maternal stress (Beta= - 0.14,  $p < .05$  respectively). The higher the participants' rated to self – compassion, the higher they reported to their mediator variable problem focused coping, consequently, was effect on the criterion variable maternal stress reduction. Social support has affected to only one mediation problem-focused coping (Beta = 0.2,  $p < .05$  respectively). The higher participants' rated level of social support, the higher they reported level of their problem-focused coping. Subsequently social support through mediator problem focused coping affected to maternal stress (Beta = - 0.14,  $p < .05$  respectively), so the high participants rated their social support the high they reported their problem focused coping and consequently the lower reported to their maternal stress. Children behavioral problem has direct effect on maternal stress (Beta = 0.17,  $p < .05$  respectively). The higher the rated their level of children behavioral problems, the higher their reported their levels of maternal stress, respectively.

Likewise, the 1<sup>st</sup> mediation level of controllability was positively effect to the 2<sup>nd</sup> mediation level of problem- focused coping (Beta = 0.19,  $p < .05$ ) and controllability negatively affect to 3<sup>rd</sup> mediation level of emotion-focused coping (Beta = -0.14), thus, the higher participants rated their level of controllability, the higher their reported level problem focused coping. Similarly, the higher participants rated the level of controllability, the low their reported level of emotion- focused coping. Subsequently it had negative affect on criterion variable maternal stress. Therefore, controllability was a useful mediator factor to mothers of children with cognitive disabilities to be aware

of their life problem and provide better problem solving, meanwhile reducing their emotional issues, with strong self- confidence overcome with stressful life situations, to happiness. So, the 1<sup>st</sup> mediation level variable controllability was shown as a significant factor that through two 2<sup>nd</sup> mediations level of problem and emotion coping variables affects to criterion variable maternal stress, respectively.

Moreover, analyzing the two mediators (problem focused and emotion focused) coping strategies have affected criterion variable maternal stress, problem -focused coping (Beta = - 0.14,  $p < .05$ ) and emotion – focused coping (Beta = 0.3,  $p < .05$ ). Thus, the higher rated the problem-focused coping, the lower their reported level of the criterion variable maternal stress. In contrast, the higher the participants rated emotion-focused coping, the higher their reported level of the criterion variable of perceived maternal stress. Regarding to 1<sup>st</sup> mediation controllability variable was play the important role to two other mediators coping strategies, respectively, these two coping mediations were also important to mothers participants' ability to control their negative effect of emotion and staying inflexibly to solve-their life problems.

Furthermore, based on result of this study controllability was exposed as a main role regarding to this study, significantly association to mothers of children with cognitive disabilities. Mothers would be able to bear in mind their personal factors such as, self – compassion and self- efficacy through mediation variable perceived controllability to cope problem and emotion of life situations. also, environmental factor social support through problem focused coping, as appraisal factors. Consequently, to overcome their stressful life situations. Also, flourishing authentic happiest family environment (Seligman, 2002).

## **Discussion**

The finding showed that there were significant association between predictor variables personal attributes self- compassion and self- efficacy to 1<sup>st</sup> level of mediator controllability. The full path models the 1<sup>st</sup> level of mediator controllability and 2<sup>nd</sup> level mediations problem- focused coping and emotion-focused coping strategies. Based on the results, full path model was better fit of data. The findings showed that there were significant association between predictor variables, mediator variables, and the criterion variable. The results found that the indirect model, level two mediation and full path model, had significant correlation coefficient between self- compassion with 1<sup>st</sup> level of mediation controllability and the 2<sup>nd</sup> level of mediation problem focused coping, also variable self- efficacy was significant association to three mediations, such as, controllability, problems focused and emotion focused

coping, also directly to criterion variable perceived maternal stress, as well. Social support effect to problem focused coping, which is understandable and reasonable, social support provide solutions to life problems, consequently affected criterion variable maternal stress. Therefore, from three personal factors (self-compassion and self- efficacy) shown influenced to mediators and subsequently effect the Thai mothers to overcome their stressful life situations. From two factors of mothers' environmental attribute social support an important variable was influence 2<sup>nd</sup> mediator problem- focused coping, subsequently affected criterion variable maternal stress. Therefore, social support would be an effective factor to Thai mothers to overcome their unpleasant life situations.

Negative psychological effects found in the results of several studies, such that children with cognitive disabilities, psychological and behavioral problems have many challenges in their lives. Since they are disabled and demand for special or extra support from their parents, mothers take responsibilities with carefulness and for which they experience stress and mental pressure. Each person has limit of capability and limit of energy, related to their life demand that causes imbalance to their lives and result in conflict with disabled children and whole family (Alleghany & Associates, 2012). Baker et al., (2003) specified that the connection between parental stress and children behavior problems was the transaction of conflict over time. and eventually parental stress contributes higher child behavior problems over time (Baker et. al., 2003; Lecavalie et al., 2006; Mackler et al., 2015; Neece, Green & Baker,2003). Therefore, psychological diagnosis of severe anxiety and depression with high stress in parents of mentally retarded children could provide essential information to counselors in case of dealing with such children (Namji and Farmer, 2013).

Based on the Lazarus theory (1984) mothers are needed to be aware and control, empowering their personal 's attributes such as, greater self – compassion, and increasing self – efficacy, also perceiving social support to overcoming on life difficulties. Bean, Lezin, Roller and Taylor (2004) suggested that when parent - child connectedness is high, the emotional context in a family is, likewise, high in affection, empathy, compassion, kindness and trust. In such an atmosphere, parents and children would have better relationship as they enjoy calmness and peace in communication, which would help child to adjust to life demands better.

Perceived control was particularly important in defining the appropriate fit to life situations. Controllable stressors might be best allocated by focusing on the parental life or parental problem itself. But such efforts might be

ineffective or harmful in the aspect of an uncontrollable stressor. On the other hand, in the situation of an uncontrollable problem and coping strategies that are more emotion – focused might be more advantages to parents in reducing stress, as one’s internal state might be more agreeable to change than the situation itself (Zakowski et al., 2001) explain, a ‘good fit’ between appraisal and coping consists predominately problem -focused coping for a controllable stressor. Regarding to Lazarus & Folkman (1984) using coping strategy and having control, would be most effective to an individual in stressful life situations. If there is a match between the changeability of the stressor, provoking the individual and the changeable stressors.

In term of Mediation role of 1<sup>st</sup> level controllability on criterion variable Maternal stress, that would motivate and positive enforcements to controlled stress from excessive worriedness, nervousness, which effects emotion and depression. Acquiring the ability to deal with stress and problems of caregiving, would help concerned parents to develop their self- efficacy, self-compassion and provide good relations mothers and family members. Consequently, family members would be able to overcome crisis or life’s problematic situations together in a better way (Pisula & Kossakowska, 2010; Vidyasagar & Koshy, 2010).

By intermediating roles to mothers’ personal and environmental attribution was significance of perceived controllability. So perceived control is particularly important in defining the appropriate fit to life situations. Controllable stressors might be best allocated with by focusing on the life or parental problem itself, while such efforts might be ineffective or harmful in the aspect of an uncontrollable stressor. On the other hand, in the situation of an uncontrollable problem, coping strategies that are more emotion – focused might be more advantages to parents in reducing stress, as one’s internal state might be more agreeable to change than the situation itself (Zakowski et al., 2001) explain, a ‘good fit’ between appraisal and coping consists predominately problem -focused coping for a controllable stressor.

Lazarus & Folkman (1984) suggested that using coping strategy and having control, would be the most effective to an individual in stressful life situations. If there is a match between the changeability of the stressor, provoking the individual and the changeable stressors. Problem – focused coping in applied to changeable stressors and emotion – focused coping applied to unchangeable and unpredictable stressors is projected to be most adaptive; this suggestion is also known as the goodness – of -fit hypothesis.

Taken together the current study's findings are aligned with the past study and supported the hypothesis that mothers' personal and environmental factors attributes have an indirect effect on the criterion variable maternal stress.

### **Limitation of the study**

Limitations of the present study were about the nature of the study as a cross-sectional study, which reminds to the researcher that the interpretation of the findings should be considered with caution. As the study is no definitive conclusions could be drawn about the causal sequential effects between the predictors, mediators, and criterion variables. In other words, the observed significant path coefficients denote only the correlation and not causality.

The other limitation is about questionnaires were all self-reported types. Even though the participants were reminded about the confidentiality and anonymity of their participation, they might still have their doubts. The study inquired about the participants' coping strategies toward their life's events, as to how much they are able to have higher self-compassion self-efficacy and receive facilities from social support to overcome their life tasks. The questionnaire is also quite extensive (more than a hundred statements), which could hinder the Thai mothers from reading the items carefully which could potentially affect their responses. However, these factors the participants might have been uncomfortable sharing such personal information truthfully. Indeed, during the data collection some mothers who attended in a small group relationship might have been influenced by their friend's responses or they preferred not to share their honest opinion about themselves. It might be possible to make them to not being fully expressed.

### **Implications**

*Implications for mothers.* Based on the result of this study, two variables from personal factors such as self-compassion and self-efficacy, from environmental factors social support and child behavioral problems were directly and indirectly by mediation of controllability and coping strategies, affected to criterion variable maternal stress. Thus, the mothers are recommended to empower their knowledge, and improve their supportive behaviors by mindfulness, self-kindness, to preserve the positive life circumstances as mother-child relationships. This does not only can help them to overcome their stressful life situations, but also, by their awareness of life's situations and controllability, empowering their solution coping, and living with long-lasting authentic happiness (Seligman, 2007).

Enhancing mothers' positive emotions especially hope in the child's independence and contribution to society, helps toward the development of

happiness. By what means does the modified positive psychology – based mediation expending personal and environmental factors to increase positive emotions or aspects for mothers of children with cognitive disabilities. While mothers share their experiences of caring for their children, they enhance essential positive aspects by working through group therapy, a situation referred to as ‘therapeutic factors’.

*The implication for a counselor.* The finding of this study showed that personal and environmental factors and coping strategy impacts on maternal stress within the Thai context would serve as a guide for helping professionals involved in providing psychotherapy to Thai clients. The counselors are suggested to use the finding of this scientific research and apply such knowledge of personal factors (positive self- compassion, self- efficacy) and environmental factor (social support) to applying to their clients based on the Thai society and family culture, in which these findings implemented to help Thai mothers to overcome the life challenges, maintain their health, and succeed their life fulfillment.

The assessment and evaluations tools of this study that enable the counselor to determine the status and quality of parents’ / mothers’ life issues in relationship and the appropriate conforming mediators to the similar case in advance. On the other hand, by implementing proper techniques the counselors should achieve better and faster results.

### **Conclusion**

The current study investigated the association between mothers’ personal attributes such as (self- compassion and self- efficacy) and environmental attributes (social support and child behavioral problems) on criterion variables maternal stress being mediating by perceived controllability and coping strategies, the expected outcome was to overcome with maternal stress, among Thai mothers of children with cognitive disabilities, in Thailand. The study showed that two factors namely self- compassion and self- efficacy from personal attribute, and social support having indirectly association to criterion variable maternal stress. Such that the higher the participants rated to self- compassion, the higher the rated self- efficacy and the higher the rated to social support were affected indirectly by mediating perceived controllability and both problem and emotion – focused coping strategies, lowering they reported their criterion variable maternal stress, respectively. In conclusion, the current findings contributed to the existing literature on variables as predictors and mediators’ and criterion variable maternal stress, by providing data from a sample which researcher generally neglect in scientific accomplishments.



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