



ปัจจัยที่มีผลกระทบต่อความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพักสำหรับเด็ก:

การทดสอบโมเดลเชิงสาเหตุ

FACTORS AFFECTING RESILIENCE AMONG EARLY ADOLESCENTS
LIVING IN HOMES FOR CHILDREN: A MODEL TESTING

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Burapha University

2020

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NARUNEST CHULAKARN

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The Dissertation of Narunest Chulakarn has been approved by the examining committee to be partial fulfillment of the requirements for the Doctor of Philosophy in Nursing Science of Burapha University

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Resilience is described as a process of successful adaptation outcomes and recovery from threatening circumstances. Early adolescents who lived in the adverse social and economic conditions could affect their resilience. The purposes of this study were to determine resilience and test a causal model of factors affecting resilience among early adolescents living in homes for children. A proportional simple random sampling technique was used to recruit participants of 219 young adolescents aged 10-14 years living in homes for children in Bangkok metropolitan region. Data collection was carried out from September to October 2019. Research instruments consisted of six self-report questionnaires. There were a demographic data, the Resilience Factors scale, the Social Connectedness Scale-Revised, a subscale “problem-focused coping” of the Coping Behavior scale, the Self-concept scale, and the Classroom Engagement Inventory. Their Cronbach’s alpha coefficients ranged from 0.79-0.90. Descriptive statistics was used to describe the participants’ characteristics and the study variables. The relationships between all predictors and causal effects both direct and indirect were tested with SEM.

The results revealed that mean total score of resilience was 76.19 (SD = 7.37) indicating a high level. The final modified model fit with the empirical data. Problem-focused coping, self-concept, and school engagement had positive direct effects on resilience, while social connectedness had indirect effects. This model accounted for 40% ($R^2 = .40$) of the overall variance in the prediction of resilience.

These findings indicate that factors influence resilience in early adolescents living in homes for children. Nurses or health care personnel who are responsible for early adolescent should plan or develop an intervention to enhance and promote resilience of these adolescent focusing on increasing problem-focused coping, social connectedness through self-concept and school engagement.

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CHAPTER 1

INTRODUCTION

Statement and significance of the problems

Children and adolescent are placed into foster care system because they were lost of one or both parents, abandonment due to family poverty, abuse and neglected in families of origin, disability, and having mental illness (Berens & Nelson, 2015; Kuiken, Gamberdella, & Wood, 2014). An estimated 8 million children are presently growing up in congregate care institutions. With respect to the environment where it is provided, alternative care may be: foster care, residential care (United Nations, 2010). Foster care is a living arrangement for children who a child protective services worker or a court has decided cannot live safely at home. Foster care arrangements include non-relative foster homes, relative foster homes (also known as “kinship care”), group homes, institutions, and pre-adoptive homes. The formal out-of-home placement of children in alternative residential settings (Child Trends, 2015; Lewit, 1993). The age of children at time of entry into foster care were less than 1 year to 19 years or more (Barbell & Freundlich, 2001; Child Treans, 2015). Although some children who enter foster care have a history of difficult experience, but others have good resilience to significant threats or severe adversity and achieve positive adaptation (Aguilar-Vafaie, Roshani, Hassanabadi, Masoudian, & Afruz, 2011; Luthar, Cichetti, & Becker, 2000). In addition, child from a violent family does well in school, has friends, behaves well, and gets along well with the teacher, earthquake survivor, recovers to normal function and development have good resilience (Goldstein & Brooks, 2013).

Early adolescents are broadly considered to stretch between the ages of 10 and 14 (The United Nations Children's Fund [UNICEF], 2011). According to Piaget, early adolescence is a period characterized by new way of thinking as the young person moves from thought processes based on concrete reasoning to more abstract thinking (Glasper, Coad, & Richardson, 2015). They are rapid increasing in height and weight (Levine & Munsch, 2014). Moreover, girls respond to the physical changes of puberty more negatively than do boys (Jordan, 2013). There are several

types of behavioral problems in adolescents that are related to difficulties in regulating emotions and using executive control strategies (Levine & Munsch, 2014). They may experience many types of traumatic events or life circumstances, such as poverty, natural disasters, child abuse or a difficult parental divorce that has put them at risk for emotional disturbance, criminal behavior and/ or other negative outcomes (Levine & Munsch, 2014). For children living in foster care, their physical development is not different from normal adolescent. However, difficult situations may affect their emotional and social development. Children in a foster care are among the most vulnerable social groups due to the scope and complexity of the problems they have faced in their original family (neglect, abandonment, conjugal violence, physical or sexual abuse). They have to live in the adverse social and economic conditions (poverty, underprivileged neighborhoods, isolation, unhealthy housing). Moreover, their parents often have very serious difficulties (physical and mental health problems, drug addiction, history of neglect or maltreatment) (Brady & Caraway, 2002; Garbarino & Eckenrode, 1997).

Adolescents constitute one of the largest groups of children in foster care (Pecora, White, Jackson, & Wiggins, 2009). An adolescent who are removed from home usually experience feelings of confusion, anxiety, guilt, rejection and abandonment upon their removal and separation from home (Drapeau, 2007). The recent evidence suggests a high prevalence of psychiatric disorders among 76 percent of youths living in residential care (Jozefiak et al., 2016). Adolescents in foster care who have a history of increased physical abuse, sexual abuse, placement instability and delinquency in youths' original families were associated with lower resilience (Shpiegel, 2015). Subviriyapakkorn (2008) studied a phenomenon at a foster home in the central region of Thailand and found that children had problems with violent behaviors, fist-fighting, cutting classes, roaming around at night and game addiction. In Thailand, approximately 5,000,000 children under the age of 18 years are underprivileged (Department of Mental Health, 2017). There are 30 homes for children places in Thailand comprised number of orphaned/ abandoned 23.86%, parents cannot be raised 23.42%, and violence 9.86% (Department of Children and Youth, 2017). A foster home or home for children in Thailand is a facility that provides care and development for six or more children in need of

assistance (Child and Youth Protection Act, 2003). Children who should receive assistance consisting of the following: homeless children or orphans, children who have been abandoned or lost, children whose parents could not raise, children who are unlawfully raised or used as instruments in committing actions, or unlawfully exploited, or abused. Foster homes have the following powers and duties: 1) arranging education, training, teaching and vocational training for children; 2) arranging services, consultation and assistance to guardians; 3) providing monitoring and follow-up, consultation and assistance to who leave foster homes (Child and Youth Protection Act, 2003).

Resilience is positive adaptation in the face of risk or adversity, capacity of a dynamic system to withstand or recover from disturbance (Goldstein & Brooks, 2013). Moreover, it is described as a process of coping and survival under conditions of risk exposure (Anthony, Alter, & Denson, 2009; Fergus & Zimmerman, 2005; Gutman, Brown, Akerman, & Obolenskaya, 2010; Luthar et al., 2000). Adolescent resilience can be conceptualized as a composite of attributes, including characteristics of the adolescent, sources of social support, and available resources (Ahern, 2006). Some studies have defined resilience of children and adolescents under adversity as a quality or personal attribute, skill and ability that enables the youngsters to survive and succeed under sustained stress, hardships, difficulties and challenges (Alvord & Grados, 2005; Ryff & Singer, 2003; Werner & Smith, 1992). For adolescent in residential care, it is a significant life transition which usually results from traumatic situations involving personal, social, and family risk to ensure a healthy development. Resilience involves an interaction between risk and protective factors, and the type of intervention which is offered to the adolescent (Goncalver & Camaeneiro, 2018; Guilera, Pereda, Paños, & Abad, 2015). Takviriyannun (2008) developed and test of the Resilience Factors Scale for Thai adolescents consisting of six components included determination and problem-solving skills, personal support, other kinds of support, positive thinking, assertiveness, balance of self and social skills.

Boundaries of resilience refer to the contextual influences (conditions under which resilience exists/ varies/ disappears), dimensions (e.g., objective/ subjective, physiological/ psychological) and underlying assumptions (e.g., growth vs. stability and state vs. trait) that are considered in determining the attributes of resilience.

Boundaries of resilience that need further research and clarification include state/trait/ process, psychological/ physiological, individual/ aggregate, and objective/ subjective perspective (Haase, 2004). Resilience studies are reserved for high-risk populations with particular focus on those youths demonstrating resilience or the ability to overcome emotional, developmental, economic and environmental challenges (Rutter, 1987). Resilience could help protect mental health and promote recovery from adversity. Furthermore, higher levels of resilience are associated with better development outcomes (Lou, Taylor, & Folco, 2018). Individuals or youngsters who manage to overcome risk factors and adapt to function well have high levels of resilience (Davidson-Arad & Navaro-Bitton, 2015).

The youth resilience framework was developed by Rew and Horner (2003). This framework aims to explain health-risk and health-promoting behavior in school-age children to address risk factors, sociocultural contexts and protective resources that can either promote or hinder positive and negative health outcomes in adolescents. Age of school-age children and early adolescent is somewhat similar period. As recommended by UNICEF (2004), school-age children is about 6-13 years of age while early adolescent is about 10-14 years old. In this group of children, they usually go to school as usual, and this is the name as school-age. Resilience is the process of adaptation to risk that incorporates personal characteristics, family and social support, and community resources. This model acknowledges that risk factors and protective resources are present throughout an individual's life. Risk factors are conditions or variables associated with a higher likelihood of negative outcomes and consequences from exposure to risks (Aguilar-Vafaie et al., 2011). Risk factors emanate from the inner words of the child and the other. It also emanates from such outer worlds as education systems, housing authorities, culture and community life (Schofield & Beek, 2005). Risk factors include gender, distress, difficult temperament and poor school performance (Rew & Horner, 2003). Protective factors operate as opposite forces to risks and, as such, are conditions or variables associated with a higher likelihood of positive outcomes and lower likelihood of negative consequences from exposure to risks (Aguilar-Vafaie et al., 2011). These protective resources include competence, coping skills, sense of humor and connectedness (Rew & Horner, 2003). Sociocultural contexts refer to families and communities that can serve

as either risk or protective factors. There are family functioning, socioeconomic status, ethnicity, peer relationship and school environments (Rew & Horner, 2003).

From the youth resilience framework and review related literature, social connectedness as a protective resource that could help lessen effects of extreme risk conditions. It is a short-term experience of relatedness and belonging, depending on both quantitative and qualitative social judgments, and relationship salience (Van Bel, Smolders, Ijsselsteijn, & Dekort, 2009). Social connectedness also comprises the way individuals connect with other people, consisting of family members, school acquaintances, relationships with peer and community, and how people see themselves with respect to these associations (Smithson, 2011; Abubakar & Dimitrova, 2016). Early adolescents living in homes for children have history lack of social connectedness. Orphan youth living in foster homes, in particular, are exposed to considerable levels of chronic hassles/ stress and deprivation, violence, poverty and abuse that have deleterious effects on cognitive functioning and adjustment (Aguilar-Vafaie et al., 2011). Homeless youth are vulnerable to myriad physical and psychosocial problems related to their lack of supportive family relationships or maltreatment by family, mobility, stressful environments, and lack of empowering social connectedness with friends and family. The findings found hopelessness and connectedness explained 50% of the variance in resilience (Rew, Taylor-Seehafer, Thomas, & Yockey, 2001). Although, children are assisted into foster homes, but the combinations are many children. The opportunity to be cared by staff equally to those children whose parents would be difficult to be possible. Lack of love and warmth of the family make children feel worthless (Liewtrakul, 2006). The evident found social connectedness involves extracurricular activities which are significantly positively correlated with overall youth resilience (Shpiegel, 2012). Fraser and Pakenham (2009) found social connectedness was the strongest association with resilience.

Moreover, social connectedness relates to problem-focused coping, self-concept, and school engagement in that it is a significant predictor of school engagement ($\beta = .62$) (Abubakar & Dimitrova, 2016). Productive coping was found to have positive relationships with social connectedness ($\beta = .28$) (Frydenberg, Care, Chan, & Freeman, 2009). Social identity integration as taking place when multiple social identities are organized within the self-structure such that they can be

simultaneously important to the overall self-concept (Amiot, Sablonniere, Smith, & Smith, 2015).

Factors that contribute to protective resources include problem-focused coping and self-concept. Problem-focused coping derived from coping styles of the youth resilience framework. Problem-focused coping is generally viewed as an adaptive mode of coping that involves actively planning or engaging in a specific behavior to overcome the problem causing distress (Folkman & Lazarus, 1985). Moreover, it refers to cognitive and behavioral efforts used to change the problem, and includes such strategies as problem-solving, planning and effort (Crăciun, 2013). Problem-focused coping was used more frequently in encounters that were appraised by the person as changeable than in those appraised as unchangeable (Folkman & Lazarus, 1985). Positive coping techniques may contribute to resilience (Rice & Liu, 2016). In addition, problem-focused coping showed a strong positive association with resilience ($\beta = .46$) (McKay, Skues, & Williams, 2018).

Self-concept characterized as a dynamic system of perceptions, beliefs and attitudes, acting in the interpretation and organization of a person's experiences and exposure to the influences of internal and external factors (Mota & Matos, 2015). Self-concept represents components of an individual's cognitions related to himself or herself (Toledano, Werch, & Wiens, 2015). It was found to be positively associated with resilience ($\beta = .68, r = .358-532$) (Mota & Matos, 2015; Werner, 1984). In addition, the adolescent who has high self-concept has also high in resilience (Anthony & Mol, 2017).

Sociocultural context contains school engagement. School engagement is also considered as a protective factor. Base on the youth resilience framework adolescent who were positively engaged in school activities had lower levels of health risk behaviors than those who were not positively connected. It is an energized action or psychological state (both observable and unobservable) that is deliberate, directed and sustained over time to positively support student interactions with learning activities (Skinner & Pitzer, 2012). In general, students' perceptions of teacher support, and the teacher as promoting interaction and mutual respect were related to positive changes in their motivation and engagement (Ryan & Patrick, 2001). School engagement is directly influenced by teacher support ($\beta = 0.49, p < 0.01$)

(Rodríguez-Fernández et al., 2016). In addition, school engagement showed higher scores on the emergent resilience trajectory, and the youths in higher school engagement were more likely to have the stress-resistant class (Oshri, Topples, & Carlson, 2017). In addition, school engagement strengthened resilience among male school-going street children in residential care (Malindi & MacHenjedze, 2012).

Based on the youth resilience framework and literature reviews, it has been shown that multiple factors included social connectedness, problem-focused coping, self-concept, and school engagement have significant influences on resilience to threats or severe adversity among early adolescents living in homes for children. An integrative approach to explain the predictors of resilience is hardly found evidence, especially in Thailand. The results of this study will contribute to knowledge and the development of nursing interventions to promote resilience among early adolescents living in homes for children.

Research objectives

1. Determine resilience among early adolescents living in homes for children.
2. Test a hypothesized model of factors affecting resilience among early adolescents living in homes for children.

Research hypotheses

1. Social connectedness has a direct positive effect, and indirect effects through self-concept and school engagement on resilience among early adolescents living in homes for children.
2. Problem-focused coping has a direct positive effect on resilience among early adolescents living in homes for children.
3. Self-concept has a direct positive effect on resilience among early adolescents living in homes for children.
4. School engagement has a direct positive effect on resilience among early adolescents living in homes for children.

5. Social connectedness, problem-focused coping, self-concept and school engagement have affected on resilience among early adolescents living in homes for children.

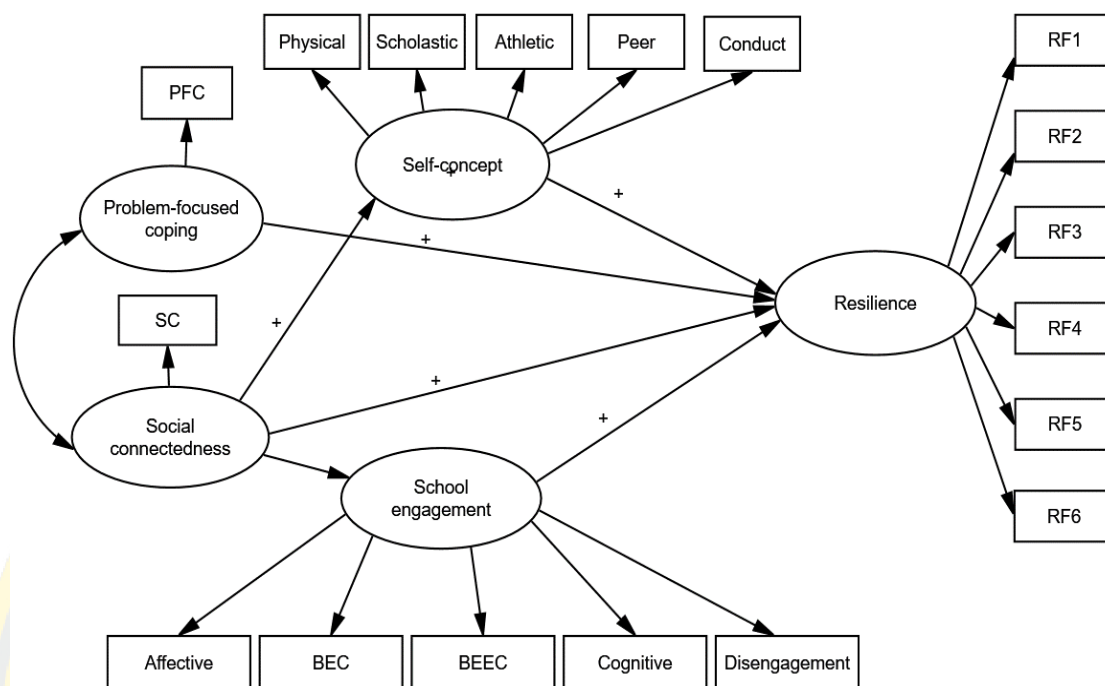
Conceptual framework

This study was guided by the Youth resilience framework (Rew & Horner, 2003) and reviewed related of literature. The model addresses risk factors, protective resources and sociocultural context that can either promote or hinder positive and negative health outcomes in adolescence.

Risk factors refer to conditions or variables associated with a higher likelihood of negative outcomes and consequences from exposure to risks (Aguilar-Vafaie et al., 2011). Protective resources modify the youth's response to hazards that carry a risk of adverse outcomes (Rutter, 1993). Sociocultural context refers to families and communities that can serve as either risk or protective factors (Rew & Horner, 2003). Base on the youth resilience framework (Rew & Horner, 2003), factors that contribute to protective resources included problem-focused coping, social connectedness and school engagement is sociocultural context. Reviewed related of literature found social connectedness, problem-focused coping, self-concept, and school engagement were positively associated with resilience (Malindi & MacHenjedze, 2012; McKay et al., 2018; Mota & Matos, 2015; Shpiegel, 2012).

In the hypothesized model social connectedness and problem-focused coping is defined as exogenous latent variables. Social connectedness was influenced resilience through self-concept, and school engagement. Self-concept, and school engagement are exogenous and endogenous variables. Resilience is the endogenous variable (dependent variable).

Thus, social connectedness has a direct positive effect on resilience, and indirect effects on resilience through self-concept and school engagement. Problem-focused coping, self-concept, and school engagement each has a positively direct effect on resilience. These can depict in 1-1.



1- 1 The hypothesized model of factors affecting resilience among early adolescents living in homes for children.

Scope of the research

This study aimed to test a hypothesized model of factors affecting resilience among early adolescents living in homes for children. The sample was adolescents aged 10 to 14 years who were currently living in homes for children in the Bangkok Metropolitan Region. Data were collected in September to October 2019.

Definition of terms

Resilience among early adolescents living in homes for children refers to protective processes pay more attention to positive adaptation outcomes and recovery from threatening circumstances of early adolescents living in homes for children. It was measured by the resilience factors scale developed by Takviriyannun (2008) [Thai version].

Social connectedness refers to early adolescents living in homes for children connect with other people consisting of school, relationships with peer,

and community. It was measured by the social connectedness scale-revised (SCS-R; Lee, Draper, & Lee, 2001).

Problem-focused coping refers to an adaptive mode of coping that involves actively planning or engaging, problem-solving in a specific behavior to overcome the problem causing distress of early adolescents living in homes for children. It was measured by the coping behavior questionnaire (Singthong, 2002) [Thai version].

Self-concept refers to early adolescents living in homes for children view and describes of himself or herself. It was measured by the self-concept scale developed by Subprawong (2015) [Thai version].

School engagement refers to the quality of a student's involvement with school include behavioral, emotional, cognitive. It was measured by the classroom engagement inventory [CEI] developed by Wang, Bergin, and Bergin (2014).

CHAPTER 2

LITERATURE REVIEWS

This study aimed to examine resilience and test a hypothesized model of factors affecting resilience among early adolescents living in homes for children. This chapter describes a review of related literature regarding adolescents living in a home for children, resilience and the youth resilience framework, and factors related to resilience among adolescents.

Adolescents living in a home for children

Adolescence is the period of life that begins with the appearance of secondary sex characteristics and ends with cessation of growth and achievement of emotional maturity (Price & Gwin, 2012). During the pubertal growth spurt the rate of growth may double. Individual difference will be widespread because of factors such as sex and genetic inheritance. Physical changes involve the skeletal and nervous systems, leading to changes in shape and proportion. Strengthening of bones continues and is associated with thickening muscle fibres in boys and increased fat deposits in the breasts and hips in girls. Puberty is triggered by a correct of hormonal effects controlled by the anterior pituitary in response to a stimulus from the hypothalamus (Glasper et al., 2015). Adolescents face conflicts over what they see and what they visualize as the ideal body structure. Body image formation during adolescence is a crucial element in the shaping of identity, and the psychosocial crisis of adolescent (Franklin & Prows, 2017).

Early adolescents are broadly considered to stretch between the ages of 10 and 14 (UNICEF, 2011). According to Piaget's theory of cognitive development, in formal operations (11-15 years old), adolescents can think in abstract terms, use abstract symbols, and draw logical conclusions from a set of observations (Franklin & Prows, 2017). Language continues to develop, both in vocabulary and complexity able to correct their own mistakes and understand double meaning (Glasper et al., 2015). Development of moral identity, as children become adolescents, they become more sensitive to attitudes and needs of others and are guided in their decisions more

by moral principles than by external circumstances. They see themselves as a moral person and believe that they act based on that belief (Levine & Munsch, 2014). Self-concept in early adolescence focuses more on physical and emotional changes taking place and on peer acceptance. Self-concept is crystallized during later adolescence as young people organize their self-concept around a set of values, goals, and competencies acquired throughout childhood (Franklin & Prows, 2017). Early adolescent understanding of multiple and conflicting emotions. They can describe two opposing feelings where the events are different or different aspects of the same situation and understand that the same event can cause opposing feeling (Parke & Gauvain, 2009).

Early adolescents in difficult situations

Children and adolescents face multiple risk factors on the path to adulthood. They are at risk of some negative outcomes because of hazards in their environment (Brooks, 2006). They are probability statements, the likelihood of a gamble whose levels of risk change depending on the time and place. The predictive validity of early risk indicators varies with 1) the time of assessments, 2) the developmental systems assessed, and 3) individual variations in the responses of children to the changing context of their caregiving environments. Many children encounter such adversities and fair well in spite of the challenges and may be considered to be resilience (Zolkoski & Bullock, 2012).

Orphan as children who have lost one or both parents due to any cause. In 2014, there are an estimated 140 million orphans worldwide (UNICEF, 2016). An estimated 8 million children are presently growing up in congregate care institutions. Common reasons for institutionalization include orphaning, abandonment due to poverty, abuse in families of origin, disability, and mental illness. A robust body of scientific work suggests that institutionalization early childhood can incur developmental damage across diverse domains. Specific deficits have been documented in areas including physical growth, cognitive function, neurodevelopment, and social-psychological health. Effects seem most pronounced when children have least access to individualized caregiving, and when deprivation coincides with early developmental sensitive periods (Berens & Nelson, 2015).

Foster youth have higher rates of mental health disorders, which may be due in part to the effects of trauma, removal from home and family, maltreatment, multiple placements, disrupted attachments, poverty, gestational exposures, and genetic vulnerability (Lee, Fouras, & Brown, 2015). Adolescents in foster care are among the most vulnerable social groups due to the scope and complexity of the problems they have faced in their original family (neglect, abandonment, conjugal violence, physical or sexual abuse), the adverse social and economic conditions they have lived in (poverty, underprivileged neighborhoods, isolation, unhealthy housing) and their parents' often very serious difficulties (physical and mental health problems, drug addiction, history of neglect or maltreatment) (Brady & Caraway, 2002; Garbarino & Eckenrode, 1997). In contrast to most countries, where foster care is the most common out of home placement for children at risk, the high proportion of children in residential care derives from historical circumstances (Davidson-Arad & Navaro-Bitton, 2015).

The term foster care commonly refers to all out- of home placements for children who cannot remain with their birth parents. Children may be placed with nonrelative foster families, with relatives, in a therapeutic or treatment foster care home, or in some form of congregate care, such as an institution or a group home (Bass, Shields, & Behrman, 2004). Foster homes vary by type and function. Some accept children on short notice for acute placement, some provide permanent care and others provide only temporary fostering. Foster homes may also operate in partnership with an institution, and may receive various levels of services and financial compensation from child welfare services at either the municipal or state level. Foster homes include both family (Kin caregivers) and non-family homes (Angel & Blekesaune, 2017).

Most of the literature focuses on the problems and deficits of youngsters in foster care and the adults they become. Nonetheless, not all youngsters who were in foster care following maltreatment by their families of origin suffer from lasting emotional and behavioral problems. These youngsters seem to have had protective factors which enabled them to endure and recover from potentially harmful situations (Davidson-Arad & Navaro-Bitton, 2015). The protective factors that are augmenting these adolescent resilience (Boyden & Mann, 2005).

According to Section 4 of the Child and Youth Protection Act, B.E. 2546 (2003), homeless children means children who do not have a parent or guardian, or who have parents or guardians who do not care for or are unable to care for the children such that the children wander into different places or engage in homeless behaviors in a manner that is likely to cause harm to their welfare. An orphan means a child whose father or mother has died, whose father or mother is absent or whose father's or mother's whereabouts cannot be ascertained. Children suffering in difficulty means children who live in a poor family or whose parents are divorced, have abandoned them, are incarcerated, or are separated and are in difficulty, or children who are required to take on family responsibilities beyond the children's age or capabilities or cognition, or children who are incapable of supporting themselves.

Child reception home means a facility that temporarily accepts children in order to trace and examine children and their family situations in order to determine proper guidelines for assistance and welfare protection for each child (Child and Youth Protection Act, 2003). Moreover, it provides care for boys and girls aged 6-18 years, living in streets, being beggars, being physically abused, having behavior problems, or becoming the victims of human trafficking. The reception home looks after the children on a short-term basis for a period of up to 3 months. The support includes the provision of all necessities for life and the fact-finding of the children, families, and surrounding people in order to conduct analysis and identify proper methods for further assistance or welfare protection. (Center for the Promotion, Promotion and Protection of Children and Youths in the Use of Online Media, 2019).

A foster home or home for children means a facility that provides care and development for six or more children in need of assistance (Child and Youth Protection Act, 2003). It provides care for boys and girls from new born until 18 years of age being orphans, abandoned, broken home, affected by HIV, or receiving improper parental care. The foster home provides all necessities for life, including medical aid, physical and mental development, education, career development, recreational activities, family tracking support, and ethical training, in order to prepare the children to be re-integrated with the families and society (Center for the Promotion, Promotion and Protection of Children and Youths in the Use of Online Media, 2019).

According to Chapter 3, Section 32 of the Child and Youth Protection Act, (2003), children who should receive relief consisting of the following: 1) homeless children or orphans; 2) children who have been abandoned or lost; 3) children whose parents could not raise or support them for any reason such as imprisonment, detention, disability, infirmity, chronic illness, poverty, youthfulness, divorce, abandonment, mental illness or neurosis; 4) children whose parents' conduct or occupations are inappropriate with potential impact on the physical or psychological development of the children under their care; 5) children who are unlawfully raised or used as instruments in committing actions, or unlawfully exploited, or abused, or subjected to any other condition potentially resulting in the children engaging in immoral or physically and psychologically harmful behaviors; 6) children with disability; 7) children suffering from difficulty and 8) children who require relief as prescribed by ministerial regulations (Child and Youth Protection Act, 2003). Among these children, some of them were classified as high risk since they came from families with many problems such as poverty, mental health, and physical disabilities. Nearly a third of these high-risk children were later on classified as resilient (Hengudomsub, 2007). There are 30 home for children places comprised orphaned/abandoned 23.86%, parents cannot be raised 23.42%, and violence 9.86% (Department of children and youth, 2017).

The youths in a foster home described their way of life's meaning along 3 dimensions, 1) their lives begin by leaning their families; 2) they have to live with; and 3) they have to live for future, which lives' image and future expectations. The key informants were 2 youths in the foster home described their live in foster home, as 5 experiences, which were: 1) conflicting with staff; 2) cutting classes to live in the temple; 3) passionate loyalty to the in own institution; 4) night roaming; and 5) using physical to solve problems (Subviriyapakkorn, 2008).

According to Section 58 of the Child and Youth Protection Act, (2003), the welfare guardians of foster homes have the following powers and duties: 1) arranging education, training, teaching and vocational training for children who are under the care of foster homes; 2) arranging services, consultation and assistance to guardians; 3) providing monitoring and follow-up, consultation and assistance to who leave foster homes as a form of assistance or welfare protection for children who

have lived in foster homes in returning to their original status (Child and Youth Protection Act, 2003).

Children and adolescents in homes for children have higher rates of mental health disorders, which may be due in part to the effects of trauma. They are among the most vulnerable social groups due to the scope and complexity of the problems they have faced in their original family, the adverse social and economic conditions. A home for children means a facility that provides care and development all necessities for life. It provides care for boys and girls from new born until 18 years of age being orphans, abandoned, broken home, affected by HIV, or receiving improper parental care.

Resilience and the youth resilience framework

Resilience is characterized as positive adaptation, prevention, and a universal capacity which allows a person, group or community in the face of risk or adversity of a dynamic system to withstand or recover from disturbance (Goldstein & Brooks, 2013; Grotberg, 1995 a). It is a dynamic process encompassing positive adaptation within the context of significant adversity (Luthar et al., 2000). In Addition, it is also an academic success in spite of encountered various risk factors, including demographic, academic, or psychological factors (Rosen, Glennie, Dalton, Lennon, & Bozick, 2010). The concept of resilience is also closely linked to attachment to sibling relationships in residential care and self, it is particularly relevant for understanding psychosocial adaptation of institutionalized adolescents (Mota & Matos, 2015). Resilience then is viewed as an internal trait or set of traits, individual recovering from the impingements of an adverse environment (Jordan, 2013). The construct of resilience has received ample attention since its inception in the 1970s (Luthar, 2006; Masten, 2001). In 1993, Grotberg developed the international resilience research project (IRRP). The project set out to examine what parents, care givers or children do that seems to promote resilience. Participants from 30 countries joined the project; Thailand is the first in 14 countries to reply. The international perspective helps to learn what different cultures are doing to promote resilience (Grotberg, 1995 a).

In Thailand, studies on resilience are limited. One person who introduced this concept among working people is Dr. Pravej Tantiphiwattanasakun, an advisory

psychologist at the Department of Mental Health. He used the term to develop various adaptation and life problem management programs (Rungruangkonkit & Kotnara, 2009). Takviriyannun (2008) developed and tested the resilience factors scale for Thai adolescents. It derived from the resilience theory of Grotberg and a literature review, the scale consists of six components included determination and problem-solving skills, personal support, other kinds of support, positive thinking, assertiveness, balance of self and social skills (Takviriyannun, 2008). Kaplan (1999) concluded that resilience is a once useful construct whose time has passed. He suggests that resilience is not a phenomenon per se, but rather a conceptual tool in the development of increasingly refined predictive models. Some have claimed that in spite of conceptual complexity, the phenomenon of resilience has too much heuristic power to be abandoned (Luthar et al., 2000).

The characteristics described as associated with resilience are accept reality, appreciation of life, "Can Do" attitude, cognitive/ brain fitness, commitment & active involvement, confront (face) their fears, control, emotional fitness, flexibility, hardiness, humor, mastery, meaning making, moral imperative, optimism, personal strength, physical fitness, problem solving, religion, role models, self-care, and social support (Rice & Liu, 2016). According to The California Healthy Kids Survey (2003) defines resilience in terms of the existences of internal and external resources that enable healthy development. Internal resources: cooperation and communication, self-efficacy, empathy, problem solving ability, self-awareness, and goals and aspirations. External resources: namely, care relationships, high expectations, and opportunities for meaningful participation, in four settings: home, school, community, and peers. Individual factors associated with resilience are intelligence, social skills, self-esteem, locus of control, empathy, faith and hope (Drapeau et al., 2007). In addition, there are both internal and external factors that are important to consider when examining resilience. Internal factors included intelligence, intrinsic motivation, problem solving ability self-esteem, and personal goals. External factors included school belonging, neighborhood belonging, family relationships, other supportive relationships, and religion (Smiley, 2011).

Resilience can develop from repeated brief exposures to negative life experiences as long as circumstances allow the individual to successfully cope or

a strengthening “steeling” effect in relation to response to later stress or adversity (Rutter, 2012). Resilience as outcome is defined as mental health despite stress, the outcome variable has to take account of mental health and individual stressor exposure (Chmitorz et al., 2018). Some study has shown that individuals who are resilience tent to show healthy, long-term psychological functioning (Werner, 1993). Resilience is a basic human capacity, nascent in all children, parents and other care givers promote resilience in children through their words, actions, and the environment they provide (Grotberg, 1995 b). Studies on resilience represent an approach to the knowledge about the development of children and adolescents when confronted with adverse circumstances (Goncalves & Camarneiro, 2018). The resilience field has generated a tremendous amount of excitement in the scientific community because it provides another window to understanding developmental process in atypical as well as typically developing children (Lester, Masten, & McEwen, 2006).

Boundaries of resilience

Boundaries of resilience are the contextual influences, dimensions and underlying assumptions that are considered in determining the attributes of resilience. They are trait/ state/ process, psychological/ physiological, individual/ aggregate, and objective/ subjective (Haase, 2004).

Trait/ state/ process. Although the definition of resilience as the presence of good outcomes that occur in the presence of adverse conditions implies a process that no consensus on the issue of resilience as trait, state, or process. Luther et al. (2000) encourage researchers to clearly specify the context to which resilience outcomes apply delineate the outcomes by using terms such as emotional resilience, behavioral resilience, or educational resilience. It would also be helpful, through staged-model specification, to distinguish proximal resilience outcomes.

Psychological/ Physiological. Psychological concepts associated with resilience have been more widely studied than physiological concepts. Concepts such as self-esteem, self-perception, personality, temperament, intellect, coping, problem-solving skills are just a few of psychological concepts that have been studied in relation to resilience (Haase, 2004).

Individual/ Aggregate. Resilience is most often studied in individuals, but to avoid confusion in yet another boundary, it is important for researchers to clarify the level of analysis. At an individual level, family factors have been identified that influence resilience. There are growing bodies of literature focused on additional levels of analysis-resilient families and resilient community (Haase, 2004).

Objective/ Subjective. According to the adolescents, being resilient was surviving. The characteristics self-attributed by the adolescents as being resilient were quite different than the characteristics of resilience found in literature. Hunter and Chandler's research indicated that resilience in homeless adolescents may be a process of defense using such tactics as insulation, isolation, disconnecting, denial, and aggression or as a process of survival using such responses as violence (Haase, 2004).

Resilience is a positive adaptation and recovery in the face of adversity, threatening circumstances. Based on previous studies, adolescents with high resilience are able to face difficulties effectively, especially adolescents living in homes for children.

The youth resilience framework

The youth resilience framework was developed by Rew and Horner (2003) to address individual risk factors, protective resources and sociocultural context that can promote or hinder positive and negative health outcomes in adolescence. This model acknowledges that risk factors and protective resources are present throughout an individual's life. A framework represents the interaction between risk factors (vulnerability) and protective resources (protection). The terms "protective" and "vulnerability" process might be used when overall effects on at-risk children's adjustment are positive versus negative in direction, respectively (Luthar et al., 2000). Rew et al. (2001) determined that resilience was possible in the vulnerable population of the homeless adolescent. Resilience youth access and use protective resource in the face of risks, thus averting long-term negative health outcomes (Rew & Horner, 2003).

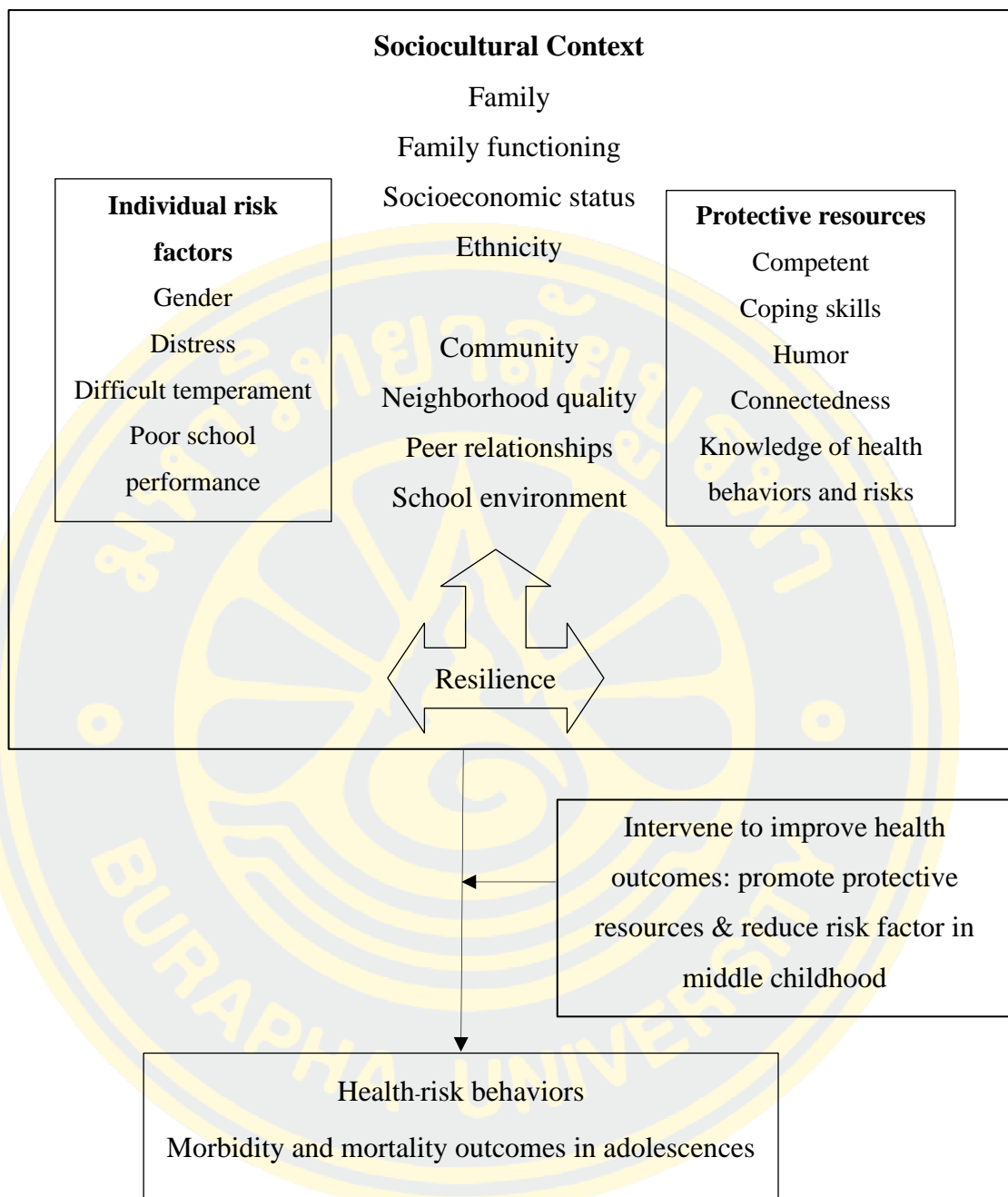
Individual risks factors refer to individual determinants that influence on negative health outcome include gender, childhood distress, difficult temperament and poor school performance (Rew & Horner, 2003). Gender has differences in

information processing styles during decision-making and risk-taking (Byrne & Worthy, 2015). Childhood distress, chronic stressors can have prolonged negative effects on children and youth (Rew & Horner, 2003). Difficult temperament in term of lack of control was significantly associated with hyperactivity and attention problems, as well as with late childhood antisocial behavior and adolescent conduct disorder. Poor school performance has identified as a significant source of stress for school-aged children and early adolescents (Rew & Horner, 2003).

Protective factors are assets that particularly matter or only matter when risk or adversity is high (O' Dougherty Wright, Masten, & Narayan, 2013). The term "protective" was reserved for effects involving interactions, wherein individuals with a particular attribute, but not those without it, were relatively unaffected by high versus low levels of adversity (Luthar et al., 2000). Individual protective resources modify the youth's response to hazards that carry a risk of adverse outcomes (Rutter, 1993). It includes competent, coping skills, sense of humor, connectedness, knowledge of health behaviors and risks (Rew & Horner, 2003). Coping style becomes a consistent way of responding to stressful events that may reflect the child's personality type or temperament (Ryan-Wenger & Copeland, 1994).

Sociocultural context can serve as either risk or protective factors, including familial factors such as family functioning, socioeconomic status (SES), ethnicity, and community factors such as neighborhood quality, peer relationships, and school environments (Rew & Horner, 2003). Environmental factors include ties with "prosocial" adults and attending an institution that offers support for competencies, determination and a sense of meaning (Drapeau et al., 2007). School engagement is considered as a sociocultural context.

Early adolescents in homes for children have face in part to the effects of trauma, neglect, maltreatment, physical or sexual abuse, violence, poverty (Lee et al., 2015; Brady & Caraway, 2002). The Youth Resilience Framework was used in the vulnerable population of the homeless adolescent and adolescent engage in risky behaviors. The Youth Resilience Framework is illustrated in 2-1.



2-1 A youth resilience framework (Rew & Horner, 2003)

Factors related to resilience among adolescents

From the youth resilience framework and reviewed related literatures, significant factors have contributed to resilience among early adolescents, included social connectedness, problem-focused coping, self-concept, and school engagement.

Social connectedness

Social connectedness defined as a short-term experience of belonging and relatedness, based on quantitative and qualitative social appraisals, and relationship salience (Van Bel et al., 2009). Connectedness has been identified as protective resources that better the effects of extreme risk conditions (Rew & Horner, 2003). It consists of family members, school acquaintances, relationships with peer and community and how people see themselves with respect to these associations (Abubakar & Dimitrova, 2016).

These studies consistently link social connectedness with resilience. Adolescents were vulnerable to mental health problems by virtue of their lack of resources with family. Rew et al. (2001) examined correlates of resilience in homeless adolescents. The sample included 59 homeless adolescents who sought and social services from a community street-outreach project in central Texas in 1998. Their findings demonstrated lack of resilience was significantly related to hopelessness, loneliness, life-threatening behaviors, and connectedness. Hopelessness and connectedness explained 50% of the variance in resilience.

Moreover, Capanna et al. (2013) studied social connectedness as resource of resilience: Italian validation of the social connectedness scale. The sample of participants included 197 individuals who provided complete data on the variables of interest both males and female. The result found the highest correlations emerged with the social and individual competence resiliency dimensions. In contrast, the correlations between the social connectedness scale-revised (SCS-R) and the psychopathology dimensions were all negative significantly correlation with depression, positive correlation between SCS-R and participants' satisfaction with their physical health. Additionally, Henderson and Greene (2014) employed an explanatory sequential mixed methods design to examine resilience, social connectedness, and re-suspension rates among youth in a community-based alternative-to-suspension program. Quantitative data were collected from a sample of

102 youth participants using a baseline and post measure of resilience and social connectedness. Additional suspension data were gathered three months after participation in the program. Their findings demonstrated a significant effect on resilience and social connectedness.

Social connectedness relates to self-concept. Based on the fundamental cognitive and developmental processes involved as people develop new social identifications and integrate their different identities into their overall self-concept. With time, exposure to, and experiences gathered in the new social group, the new member will come to identify with his/her new group (Amiot et al., 2015).

These studies consistently link connectedness with coping. School connectedness is one dimension of social connectedness. Frydenberg, Care, Freeman and Chan (2009) studied interrelationships between coping, school connectedness and wellbeing. Data was collected from 536 students (241 boys and 295 girls) in nine Melbourne metropolitan Catholic schools. Participants were aged between 12 and 14 years, and were all enrolled in Year 8 English classes. A path analysis found productive coping (work at solving the problem to the best of my ability, work hard, improve my relationship with others, look on the bright side of things and think of all that is good, make time for leisure activities, and keep fit and healthy) was positive relationships with emotional wellbeing ($\beta = .65$) and school connectedness ($\beta = .28$).

Fraser and Pakenham (2009) studied resilience in children of parents with mental illness: Relations between mental health literacy, social connectedness and coping, and both adjustment and caregiving. Resilience factors (mental health literacy, social connectedness, coping strategies). Participants were recruited 12-17 years of age and presence of a parent with a mental illness. Five sibling pairs participated in the study. Correlations showed stronger support for the beneficial relationships between social connectedness and adjustment, and strong support for the adverse links of disengagement and involuntary coping strategies with adjustment and caregiving.

These studies consistently link social connectedness with school engagement. Abubakar and Dimitrova (2016) examined the influence of connectedness on school engagement and life satisfaction among Roma and Bulgarian mainstream adolescents. The sample included youth aged 14 to 18 from four public urban schools in Bulgaria.

A set of measures on family, peer, school and neighborhood connectedness were administered alongside life satisfaction and school engagement scales. The results indicated that social connectedness to be a protective factor, it seemed that both the strength and patterns of association between variable were same for mainstream Bulgarian adolescents and the adolescents of Roma. School connectedness was predictive of mainstream Bulgarians's school engagement, while family and school connectedness were predictive of the Roma adolescents. Given that school connectedness is directly associated with school engagement ($\beta = .62$) (Abubakar & Dimitrova, 2016).

Problem-focused coping

Coping refers to a range of strategies that people use to respond to various challenges. It includes attitudes, behaviors and relationship skills (Rosen et al., 2010). Coping has been identified as a protective resource involves thoughts and actions directed toward solving problems (Rew & Horner, 2003). Child and youth-headed households also recognizes young people's resilience and agency in adopting coping strategies (Evans, 2012). Consistent with the above definition, several researches illustrated these coping were related to resilience (Rice & Liu, 2016; McKay et al., 2018). As previously mentioned, Lazarus and Folkman (1984) divided coping strategies into the following two categories: problem-focused and emotion-focused coping. Problem-focused coping is generally viewed as an adaptive mode of coping that involves actively planning or engaging in a specific behavior to overcome the problem causing distress (Folkman & Lazarus, 1985). Moreover, Problem-focused coping refers to cognitive and behavioral efforts used to change the problem, and includes such strategies as problem-solving, planning and effort (Crăciun, 2013). Carver, Scheier and Weintraub (1989) measured conceptually distinct aspects of problem-focused coping and found active coping responses, suppression of competing activities, restraint coping, seeking social support and planning as types of problem focused coping.

These studies consistently link problem-focused coping with resilience. Ferguson, Bender, and Thomphon (2015) studied gender, coping strategies, homelessness stressors and income generation among homeless young adults in three cities. A sample of 601 homeless young adults (ages 18-24 years) was recruited from

three cities in the United States (Los Angeles, California; Austin, Texas and Denver, Colorado) to participate in semi-structured interviews. Independent t-test results further indicated gender differences in coping styles. Males reported higher problem-focused coping scores than females (7.83 vs. 7.47, $p < .05$). In contrast, females had higher avoidant coping scores (6.19 vs. 5.51, $p < .001$) and higher social coping scores (7.45 vs. 7.05, $p < .01$) than males. The findings provide greater understanding of the risk and resilience factors associated with legal and illegal income generation among homeless young adults and, in particular, how these factors differ by gender. Several findings from this study are important to highlight. First, specific coping strategies, such as problem-focused coping, function as protective factors, buffering youth from the effects of well-established risk factors among homeless young people (e.g., criminal behavior, transience, mental illness and substance use). This finding suggests that the risk and resilience framework might be overly simplistic for understanding the coping strategies of homeless young adults (Ferguson et al., 2015).

On the other hand, Sawasdisutha and Hongsanguansri (2016) studied coping mechanisms among high school students in Bangkok. The participants were 700 high school students studying in years 4-6 in schools located in Bangkok with a mean age of 16.5 ± 1.3 years. The findings revealed that males and females used coping mechanisms differently and that females used the problem-focused coping style more frequently than males.

Rice and Liu (2016) studied personal resilience and coping with implications for work. A literature review was conducted using search terms of resilience, resiliency, personal resilience, coping and resilient coping. The results found that coping and resilience are related to one another, they are distinct concepts. Positive coping techniques may contribute to resilience. McKay et al. (2018) examined sensation seeking is related to increased psychological resilience through the mediating factors of coping and perceived resilience. The participants 353 responded to an online survey. Approximately half of the participants were undergraduate psychology university students who participated as part of a research experience program. The results found positive coping techniques may contribute to resilience.

In Thailand, Boonprathum (2017) studied the factors influencing depression among students studying at extended opportunity schools. The participants consisted

of 289 students studying in extended opportunity schools located in Bangphi District, Samut Prakran Province. The findings indicated no correlations between problem-focused coping and depression. The findings could be explained by the fact that problem-focused coping reduces or solves problems rather than decreasing psychological stress. Kummabutr, Numkham, Chaleoykitti, & Putchakarn (2015) studied promoting coping skill in school-age children. They conducted a quasi-experimental study design in families of 102, 10-11 year-old children were randomly assigned into 3 groups, experimental group (parent plus child resilience training), comparative (child resilience training), and control group. Their result showed that coping skill significantly higher in the parent plus child resilience training and the child resilience training conditions than in the control group. They concluded that coping skill was positively associated with resilience among adolescents.

Self-concept

Self-concept refers to the overarching view and how individual describes of him or herself (Butler & Gasson, 2005; Frankin & Prows, 2017). The term self-concept includes all of nations, beliefs, and convictions that constitute an individual's self-knowledge and that influence that individual's relationship with other (Frankin & Prows, 2017). Mota and Matos (2015) define self-concept as a dynamic system of perceptions, beliefs and attitudes, which act in the interpretation and organization of a person's experiences and exposure to the influences of internal and external factors. They conducted structural equation modeling analyzed the associations between quality of sibling relationship and self-concept of institutionalized adolescents, testing the mediating role of resilience in this association, and the moderating effect of the maintenance of contact between siblings. The sample was 387 adolescents living under residential care (due to abandonment, parental neglect or lack of family socio-economic conditions), between 12 and 18 years, from both genders and living in the Northern and Central Portugal. The results showed that the quality of sibling relationship predicted a positive self-concept, and resilience played a mediating role on the previous association. Finally, the associations between variables of resilience and self-concept showed positive values of moderate magnitude ($r = .358$ to $r = .532$).

Moreover, Anthony and Mol (2017) examined the effect of self-concept on happiness and resilience among undergraduate adolescent students both hostellers

and day-scholars. The sample included 70 undergraduate adolescent students, aged between 18 and 19 years were selected from private college in Palakkad, Kerala. Findings found a positive relationship among two constructs self-concept and happiness. The increase in the level of self-concept were positively influenced on self-concept. Moreover, they indicated that adolescents who had high self-concept also had high resilience.

School engagement

Skinner and Pitzer (2012) define school engagement as engagement not only has an intuitively appealing holistic meaning that focuses on the quality of a student's involvement with school, but it also incorporates multiple distinguishable features, such as behavioral, emotional, cognitive, and psychological engagement. The school is psychologically important to adolescents as a focus of social life (Rodgers, 2017). Adolescents who were positively engaged in school activities had lower levels of health risk behaviors than those who were not positively connected (Rew & Horner, 2003). Based on the youth resilience framework adolescents who were positively engaged in school activities had lower levels of health risk behaviors than those who were not positively connected.

These studies consistently link school engagement with resilience. Oshri et al. (2017) studied positive youth development and resilience: growth patterns of social skills among youth investigated for maltreatment. They conducted a nationally representative, longitudinal data from 5,501 families investigated for child maltreatment. The current analysis focused on a subsample of 1,179 aged 11-15 year old. The result found that resilience process and attendant positive outcome in multiple domains of functioning were evident among the stress-resistant and emergent resilience.

Rodríguez-Fernández et al. (2016) studied contextual and psychological variables in a descriptive model of subjective well-being and school engagement. They used a structural equation model to analyze the effects of perceived social support, self-concept and resilience on subjective well-being and school engagement (cognitive, emotional and behavioral engagement). The sample comprising a total of 1,250 secondary school students aged between 12 and 15. All participants attended schools in the Autonomous Region of the Basque Country (Spain). The result found

that resilience is directly determined by self-concept ($\beta = .56, p < .01$). School engagement is directly influenced by teacher support ($\beta = 0.49, p < 0.01$) and indirectly influenced by social support (family: $\beta = .16, p < .01$; peers: $\beta = .07, p < .01$; teacher: $\beta = .05, p < .01$), through self-concept.

Malindi and MacHenjedze (2012) studied the role of school engagement in strengthening resilience among male street children. This qualitative South African study examined whether or not school engagement strengthened resilience among male school-going street children in residential care. They conducted three semi-structured focus group interviews with the street children who volunteered participation in this study. The study involved 17 street children aged between 11 and 17 years. The findings showed that school engagement strengthened resilience among the participants by promoting pro-social change, future orientation, opportunities for support, learning of basic skills and restoration of childhood.

In Thailand, only one study was to examine school engagement. Wonglorsaichon (2012) studied strategies for enhancing school engagement of students from the results of SEM analysis: development and implementation. The research and development in 1 phase included 1,780 students and 596 teachers, and employed SEM to analyze the data collected by questionnaire; the participatory action and experiment research in the 2 phases used the sample of all 133 teachers and their 6,353 students from 5 primary and secondary schools. The finding found overall student had high degree of school engagement with the highest of emotional, follow by cognitive and behavioral school engagement respectively; whereas the teacher perceives that student had only high degree of emotional and moderate degree of cognitive and behavior school engagement. The school engagement had significant positive direct of 0.451 on students' academic achievement at .05 levels.

Summary

Evidence in literatures demonstrated that the important factors included social connectedness, problem focused-coping, self-concept, and school engagement which have related with resilience. However, few studies have been available on the significantly associated of each and all these factors on resilience among early

adolescents living in homes for children in Thailand. Therefore, the factors affecting resilience included social connectedness, problem focused-coping, self-concept, and school engagement have not been clearly explored in resilience among early adolescents living in homes for children in Thailand. A better understanding of the relationship and effect between factors with resilience, it is necessary if actionable steps are to be realized in addressing social connectedness, problem focused-coping, self-concept, and school engagement of resilience.



CHAPTER 3

RESEARCH METHODS

This chapter presents the research methods including research design, population and sample, sampling, setting of the study, research instruments, protection of human rights, data collection procedures, and data analyses.

Research design

A descriptive model-testing, cross-sectional design was used. This research design was considered for the following two reasons: 1) A model-testing design specifically aims at testing the accuracy of the hypothesized causal model (Gray, Grove, & Sutherland, 2017), and 2) A model-testing clearly demonstrates the causal relationship among the concepts.

Population and sample

Target population of this study composed of early adolescents living in homes for children in Thailand. Accessible population was early adolescents living in homes for children in Bangkok metropolitan region (Bangkok, Pathum Thani, Samut Sakhon, Samut Prakan, Nakhon Pathom and Nonthaburi provinces).

Sample

The sample for this study was recruited through the target population by using a proportional simple random sampling technique. Inclusion criteria for the participants were adolescents aged 10-14 years. They must be able to read and write in Thai language and have guardians who allow them to participate in the study. They also have to be healthy and no chronic disease.

Sample size

A sample size of SEM for minimum sample size was based on the model complexity and basic measurement model characteristics. The SEM model contains five or fewer constructs, each with more than three items (observed variables), and with high item communalities (0.60 or higher) can be adequately estimated with sample as small as 100 to 150 (Hair, Black, Babin, & Anderson, 2014). A typical

minimum of five respondents for each estimated parameter, or 10 for each estimated parameter preferred (Jackson, 2001; Joreskog & Sorbom, 1996). A generally accepted ratio to minimize problem with deviation from normality is 10-20 respondents for each parameter estimated in the model (Hair et al., 2014). In this study, a ratio of 20 respondents per parameter is considered. The researcher estimated a minimum sample size of 240 on 12 estimated parameters (2 variances, 1 covariance, 6 paths, and 3 structure errors).

Setting of the study

Homes for children means a facility that provides care and development for children in need of assistance (Child and Youth Protection Act, 2003). It provides care for boys and girls being homeless children or orphans, children who have been abandoned or lost, children whose parents could not be raise, children who are unlawfully raised or used as instruments in committing actions, or unlawfully exploited, or abused. Homes for children provide all necessities for life, including medical aid, physical and mental development, education, career development, recreational activities, family tracking support, and ethical training, in order to prepare the children to be re-integrated with the families and society (Center for the Promotion, Promotion and Protection of Children and Youths in the Use of Online Media, 2019).

This study was conducted in homes for children under the Department of Children and Youth, Ministry of Social Development and Human Security and non-governmental or private facilities located in the Bangkok Metropolitan Region consisting of the following six provinces of Bangkok, Pathum Thani, Nakhon Pathom, Samut Prakan, Samut Sakhon and Nonthaburi provinces. A total of 18 facilities was included in this study. Each facility segregated females and males and shared similar contexts (Thai Civil Rights and Investigative Journalism [TCIJ], 2015; Department of Children and Youth, 2019).

Sampling

The researcher employed a proportional simple random sampling technique by calculating a proportion of number of the eligible adolescents aged 10-14 year in each of 18 homes until reaching 240 subjects. All 18 homes for children are

distributed throughout the Bangkok Metropolitan Region. Details were from the following:

1. Bangkok contains 9 homes. Two homes for general children and 1 home for child reception which belong to the government's department of children and youth while 6 homes were private facilities. There were about 300 children with the age of 10-14 years. A simple random sampling technique was used by drawing homes' name of 2 from Government's department of children and youth and 2 from private facilities which represented 25-30% of total population (Neuman, 1991). All eligible participants of the selected 4 homes was invited to participate. It contained 132 participants.

2. Pathum Thani province consists of 2 homes under the government's department of children and youth. There were about 110 children with the age of 10-14 years. Each home was selected by asking voluntarily to recruit 24-25 eligible participants. Lastly, a total sample was 49.

3. Nonthaburi province contains 2 homes under the government's department of children and youth. There were about 87 children aged of 10-14 years. Each home was selected by asking voluntarily to recruit 19 eligible participants. The total sample was 38.

4. Nakhon Pathom province has 2 homes under private facilities. There were about 30 children aged 10-14 years. Only one facility was recruited 13 participants by asking voluntarily.

5. Samut Prakan province has 2 facilities. One is a child reception under the government's department of children and youth while the other is a private facility. There were about 20 children aged 10-14 years. Only one facility under the government was recruited. There were 8 participants by asking voluntarily.

6. Samut Sakhon province has one home for child reception under the government. The eligible participants were unavailable. Thus, the home in this province was not selected. Table 3-1 shows number of samples in each province.

Table 3-1 Number of samples calculating by using a proportional simple random sampling technique

Province	Number of children	Number of samples
Bangkok	300	132
Pathum Thani	110	49
Nonthaburi	87	38
Nakhon Pathom	30	13
Samut Prakan	20	8
Total	547	240

Research instruments

The researcher employed six self-report questionnaires.

A **demographic questionnaire** was used to measure participants' characteristics. This questionnaire was used to collect information about children's age, gender, education level.

The resilience factors scale [RFS] developed by Takviriyannun (2008) [Thai version]. The RFS was used to assess the resilience factors of Thai adolescents. The scale consists of 6 components, including three sources of resilience factors; I have (external support); I am (Inner strengths); I can (social and interpersonal skills) with a total of 25 items. These six components included determination and problem-solving skills, personal support, other kinds of support, positive thinking, assertiveness, balance of self and social skills. The scores range from 25 to 100 with a 4-point rating scale ranging from 1 (irrelevant) to 4 (extremely relevant). The higher the score indicates high resilience. The Cronbach's alpha reliability of the instrument was 0.89 (Takviriyannun, 2008). Interpretation is divided into 3 levels of low (scores 25-50), medium (scores 51-75), high (scores 76-100) (Permpool, Takviriyannun, & Hengudosub, 2011). Cronbach's alpha coefficient for internal reliability for this study was 0.88.

The social connectedness scale-revised [SCS-R] developed by Lee et al. (2001) [English version], which used to assess experiences of closeness in interpersonal context, as well as difficulties establishing and maintaining a sense of

closeness. The researcher had already obtained permission to use and translate into Thai from the tool's developer. The SCS-R is comprised of 20 items (10 positive and 10 negative). The total sum of the scores ranged from 20 to 120 with a 6-point rating scale ranging from 1 (strongly disagree) to 6 (strongly agree). Higher score on the SCS-R reflects a stronger sense of social connectedness more a sense of closeness with others and maintain and seeking connections. The Cronbach's alpha reliability of the instrument was 0.94 (Lee et al., 2001). Cronbach's alpha coefficient for internal reliability for this study was 0.80.

A subscale “problem-focused coping” of the coping behavior questionnaire [CBQ] was used to measure problem-focused coping developed by Singthong (2002) [Thai version]. This scale consists of 12 items covered problem-focused coping, while 10 items were concerned with emotion-focused coping. This study used a 12-item problem-focused coping. Its total sum of the scores ranged from 12 to 60 with a 5-point rating scale ranging from 1 (never) to 5 (every). Higher score indicates a high degree of problem-focused coping. The Cronbach's alpha reliability of the instrument was 0.82 (Singthong, 2002). Cronbach's alpha coefficient for internal reliability for this study was 0.84.

The self-concept scale developed by Subprawong (2015) [Thai version], which applied from the concept of Harter (1999) and Hadley, Hair, and Moore (2008). It used to assess 5 dimensions: physical appearance, scholastic competence, athletic competence, peer acceptance, and conduct/ morality. The instrument consists of 25 items. The total sum of the scores ranged from 25 to 125 with a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) and reverse score of negative items. The higher score indicates high level of self-concept. The Cronbach's alpha reliability of the instrument was 0.75 (Subprawong, 2015). Cronbach's alpha coefficient for internal reliability for this study was 0.79.

The classroom engagement inventory [CEI] developed by Wanget et al. (2014) [English version], which used to measure engagement in school setting. The researcher had already obtained permission to use and translate into Thai from the tool's developer. The instrument consists of 5 factors with 24 items: Affective engagement, Behavioral engagement-compliance, Behavioral engagement-effortful class, Cognitive engagement, and Disengagement. The total sum of the scores ranged

from 24 to 120 with a 5-point rating scale ranging from 1 (never) to 5 (each day of class) and reverse score of negative items. The higher scores indicate higher level of engagement. Validity of CEI was examined by correlating factor scores from the five-factor CFA model with variables that linked to classroom engagement. The Cronbach's alpha coefficients of each of the five engagement factors ranged from 0.82-0.90 (Wang et al., 2014). Cronbach's alpha coefficient for internal reliability for this study was 0.90.

Psychometric properties of the measures

The instruments used in this study include the resilience factors scale [RFS], the social connectedness scale-revised [SCS-R], a subscale "problem-focused coping" of the coping behavior questionnaire [CBQ], the Self-concept scale, and the classroom engagement Inventory [CEI].

Validity

The content validity of all study instruments has been evaluated in previous studies and also has been evaluated in a Thai sample for the RFS, CBQ, and the self-concept scale. The SCS-R and the CEI were translated into Thai and that their content validity was confirmed (Brislin, 1970; Cha, Kim, & Erlan, 2007; Hilton & Skrutkowski, 2002).

Translation process

Research instruments in English versions (the SCS-R and the CEI) were translated into Thai by using a back-translation technique by two bilingual translators who were Thai native speakers from Faculty of nursing. Blind back-translation each translated Thai version was translated independently back into English language by Language Institute, Burapha University who had not seen the original English version. Finally, the major advisor and the researcher who are bilingual, native Thai speaking and knowledgeable about early adolescents compared the contents of each item, its cultural acceptability, and the consistency of the grammar, and structure of each item between the original and back translated English versions. This back-translation technique could ensure the translated scales' content validity and cultural equivalence. However, the construct validity will be tested in this study using

confirmatory factor analysis, which was carried out under the AMOS program to estimate the specified measurement model.

Reliability

The reliability of all study instruments was tested using internal consistency which presented as Cronbach's alpha coefficients. A reliability coefficient of 0.80 is considered the acceptable value for a well-development and 0.70 for a newly translated scale (Gray et al., 2017). For this study, the Cronbach's alpha of the RFS, the SCS-R, the CBQ, the Self-Concept Scale, and the CEI were 0.88, 0.80, 0.84, 0.79, and 0.90 respectively.

Summarized of variables and instruments are shown in Table 3-2.

Table 3-2 Summarized of variables and instruments

Variable	Source	No of items	Scale and interpretation	Level of variable	Reliability (Cronbach's alpha)
Resilience	The resilience factors scale [RFS] developed by Takviriyannun (2008)	25	4-point rating scale ranging from 1 (irrelevant) to 4 (extremely relevant).	Interval	0.88
Social connectedness	the social connectedness scale-revised [SCS-R] (Lee et al., 2001)	20	6-point rating scale ranging from 1 (strongly disagree) to 6 (strongly agree)	Interval	0.80

Table 3-2 (continued)

Variable	Source	No of items	Scale and interpretation	Level of variable	Reliability (Cronbach's alpha)
Problem-focused coping	The coping behavior questionnaire (Singthong, 2002)	12	5-point Likert scale ranging from 1 (never) to 5 (every time)	Interval	0.84
Self-concept	The Self-concept scale developed by Subprawong (2015)	25	5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).	Interval	0.79
School engagement	The classroom engagement inventory [CEI] developed by Wang et al. (2014)	24	5-point rating scale ranging from 1 (never) to 5 (each day of class).	Interval	0.90

Protection of human rights

This study was reviewed and approved by the ethics committee and the Institutional Review Board [IRB approval 05-05-2562] for graduate studies of Faculty of Nursing, Burapha University. Participants and their guardians were asked to provide their signatures on informed assent and consent. The participants signed informed assent from and the guardians (the directors of home for children) signed

informed consent forms. Prior to sign the consent form, selected early adolescents were invited to participate and receive a full explanation of all aspects of the study. It included potential risks and benefits related to uncomfortable feelings due to the sensitive nature of some questions and possible fatigue associated with completing the pencil and paper forms. Early adolescents and their guardians were informed that their participations were voluntary and that they could refuse to participate at any time without any penalty.

Questionnaires were administered only by the researcher, and participants were given time (30-45 minutes) in the classroom to complete the questionnaires. The participants had the right to refuse to answer any items, or to withdraw from the study at any time without any negative consequences for them. In addition, the data were kept strictly confidential, only code numbers were used in the data analyses, and all findings were reported as group data.

Data collection procedures

The data collection procedures were described below.

1. The data were collected by self-administered questionnaires after the IRB approval by the ethics committee and the institutional review board [IRB approval 05-05-2562], Faculty of Nursing, Burapha University.
2. A letter of introduction and request for permission to conduct the study from the Faculty of Nursing, Burapha University was submitted to the Director General of the Department of Children and Youth and the directors of home for children under the government's Department of Children and Youth, Ministry of Social Development and Human Security, and non-governmental or private facilities located in the Bangkok Metropolitan Region.
3. After receiving permission, the researcher contacted guardians of each home to meet with eligible participants. The researcher explained the research objectives and informed the participants of the protection of human rights. Participants and their guardians were asked to provide their signatures on informed assent and consent upon their willingness to participate. The participants signed informed assent and the guardians also signed informed consent. However, they could

refuse to participate at any time without any penalty. Brief information related to study and items in the self-report questionnaires. Questionnaires were administered only by the researcher, and participants were provided time (30-45 minutes) in the classroom each home to complete the questionnaires. Data were collected from September to October 2019 in the evening after school or depending on the time that the convenience of the participants.

4. After the participants had completed the questionnaires, the researcher asked them to double-check each item before returning the forms. The data were kept strictly confidential. Only code numbers were used in the data analyses. All the findings were reported as group data.

Data analysis

The researcher utilized a statistical software package for data analyses. Statistical significance level was set throughout the analyses at $p < .05$. The data analyses methods were as follows:

1. The demographic data of the sample were described by using descriptive statistics, namely, frequency, percent, mean and standard deviation.
2. The relationships between all predictors and hypothesized model of causal effect, including, both direct and indirect effects on resilience among early adolescents living in homes for children, were tested with SEM by using the AMOS program.

CHAPTER 4

RESULTS

This chapter presents the results from the data analyses in four sections. The first section describes the characteristics of the participants. Second, the assumption testing of the structural equation models are presented. Third, the description of the study variables, including resilience, social connectedness, problem-focused coping, self-concept, and school engagement are presented. The last section explains the results of the research hypotheses testing.

Descriptive characteristics of the participants

This study was conducted using a proportional simple random sampling technique to recruit the participants included 219 early adolescents living in 9 homes for children (7 homes under the government's department of children and youth and 2 homes from private facilities by one home from the private facility refused to participate in the research) used in the subsequent statistical analysis after 21 missing cases were deleted. Their age ranged from 10-14 years with a mean of 12.42 ($SD = 1.31$). About one half of them were girls (50.2%). About 94.07% were studying and studying in primary school level (57.53%). Their GPA range from 1.00-4.00 was means of 3.02 ($SD = 0.62$). Details were shown in Table 4-1.

Table 4-1 Descriptive characteristics of the participants (N = 219)

Characteristic	n	%
Age (Years) $M = 12.42$, $SD = 1.31$, range = 10-14		
10	19	8.7
11	40	18.3
12	53	24.2
13	43	19.6
14	64	29.2

Table 4-1 (continued)

Characteristic	n	%
Gender		
Girl	110	50.2
Boy	109	49.8
Education level		
Currently studying	206	94.06
Primary school (Grade 4-6)	126	57.53
Lower secondary school (Grade 1-3)	73	33.33
Others (Non-formal education)	7	3.20
Leave studying	13	5.94
At highest education of:		
- Primary school	9	4.11
- Lower secondary school	4	1.83
GPA $M = 3.02$, $SD = 0.62$, range = 1.00-4.00 (n = 206)		

Assumption testing for the structural equation model [SEM]

The assumptions underlying structural equation modeling analysis were tested including missing data, normality, outliers, linearity, and multicollinearity (Tabachnick & Fidell, 2014). Details were described as follows:

For this study, there were 219 participants and 15 observed variables. The ratio of cases to 12 estimated parameters is 20:1.

Missing data must always be addressed if the missing data are in a nonrandom pattern or more than 10 percent of the data items are missing (Hair et al., 2014). The total samples in this study were 219. Therefore, all cases were further tested for the outlier.

According to Tabachnick and Fidell (2014), univariate outlier is a case with an extreme value or large standardized scores on one or more variables. If it is in excess tested of 3.29 standardized deviations or less than -3.29 standardized deviations are potential outliers. Then, each measured variable was examined.

There were 2 univariate outliers, cases # 10 and # 85 (Table Appendix 5-1, Appendix 5). However, the extremeness of a standardized score depends on the size of the sample; with a very large N, a few standardized scores in excess of 3.29 are expected (Tabachnick & Fidell, 2014). For multivariate outlier, Mahalanobis distance statistic, which indicates the distance of a case from the centroid of the means of all variables. It can be evaluated by using the Chi-square distribution. From Chi-square table $\alpha = .001$, $df = 4$, case more than 18.467 is a multivariate outlier. The test results showed that there were 2 multivariate outliers, cases # 10 and # 64 (Table Appendix 5-2, Appendix 5). Consequently, three cases of univariate and multivariate outliers (cases # 10, # 64 and # 85) were deleted from raw data. Therefore, the final of 216 cases were later tested for normality, linearity, and multicollinearity.

Normality can have serious effects in small samples (fewer than 50 cases), but the impact effectively diminishes when sample sizes reach 200 cases or more (Hair, Black, Babin, & Anderson, 2019). The ratio of the value of either skewness or kurtosis over its standard error is interpreted in large sample as a z-test of the null hypothesis that there is no population skewness or kurtosis. Variables with absolute values of skewness > 3 are described as “extremely” skewed by some authors of these studies. A conservative rule of thumb, then, seems to be that absolute values of kurtosis > 10 suggests a problem (Kline, 2011). As presented in Table Appendix 5-3 (Appendix 5), all the scores of resilience among early adolescents living in homes for children, social connectedness, problem-focus coping, self-concept, and school engagement were within the range of -1.181 to 1.681, which were acceptable limits to be a normal distribution for each measure of the exogenous, the mediator, and the endogenous variables.

For linearity, SEM technique examines only linear relationships among variables. Linearity among latent variables is difficult to assess. However, linear relationships among pairs of measured variables can be assessed through inspection of scatterplots (Tabachnick & Fidell, 2014). In this case, scatterplots between independent variables and dependent variables (i.e., resilience among early adolescents living in homes for children, social connectedness, problem-focused coping, self-concept, and school engagement) are linearity. Thus, the assumption of linearity is met.

Multicollinearity occurs at much higher correlation (0.90 and higher) (Tabachnick & Fidell, 2014, p. 124). While multicollinearity is a correlation matrix with

tolerance value (< 0.2), and a variance inflation factor ($VIF > 4$). Generally, accepted levels of multicollinearity tolerance values is up to 0.1, corresponding to a VIF of 10 (Hair et al., 2014, p. 201). In these data, evidence of multicollinearity was not found.

Descriptive statistics for the study variables

Descriptive statistics for all continuous variables are presented (with a total $N = 216$), including resilience among early adolescents living in homes for children, social connectedness, problem-focused coping, self-concept, and school engagement.

Resilience

A total score of resilience ranged from 52 to 94 with a mean of 76.19 ($SD = 7.37$) interpretation (scores 76-100) is a high level of resilience. There were six subscales, including determination and problem-solving skills ($M = 21.51$, $SD = 2.55$), personal support ($M = 18.44$, $SD = 2.63$), other kinds of support ($M = 9.70$, $SD = 1.46$), positive thinking ($M = 11.86$, $SD = 1.87$), assertiveness ($M = 5.85$, $SD = 1.15$), and balance-of-self and social skills ($M = 8.81$, $SD = 1.48$). Details were presented in Table 4-2.

Table 4-2 Possible and actual ranges, means, and standard deviations of resilience scores for total and its subscale ($N = 216$)

Resilience	Range		<i>M</i>	<i>SD</i>
	Possible	Actual		
Total	25-100	52-94	76.19	7.37
Subscale				
Determination and problem-solving skills	7-28	15-28	21.51	2.55
Personal support	6-24	8-24	18.44	2.63
Other kinds of support	3-12	4-12	9.70	1.46
Positive thinking	4-16	7-16	11.86	1.87
Assertiveness	2-8	2-8	5.85	1.15
Balance-of-self and social skills	3-12	4-12	8.81	1.48

Social connectedness

A total score of social connectedness ranged from 44 to 110 (possible range = 20-120) with a mean of 79.31 ($SD = 11.64$), which was at a moderate level.

Problem-focused coping

A total score of problem-focused coping ranged from 16-60 (possible range = 12-60) with a mean of 36.93 ($SD = 8.44$), which was at a moderate level.

Self-concept

A total score of self-concept ranged from 59 to 115 with a mean of 79.86 ($SD = 9.03$), which was at a moderate level. There were five subscales of physical appearance ($M = 18.20$, $SD = 3.64$), scholastic competence ($M = 15.63$, $SD = 3.30$), athletic competence ($M = 14.52$, $SD = 2.62$), peer acceptance ($M = 16.58$, $SD = 3.07$), and conduct/morality ($M = 14.93$, $SD = 2.25$). Details were presented in Table 4-3

Table 4-3 Possible and actual ranges, means, and standard deviations of self-concept scores for total and its subscale (N = 216)

Self-concept	Range		<i>M</i>	<i>SD</i>
	Possible	Actual		
Total	25-125	59-115	79.86	9.03
Subscale				
Physical appearance	5-25	11-25	18.20	3.64
Scholastic competence	5-25	6-24	15.63	3.30
Athletic competence	5-25	6-21	14.52	2.62
Peer acceptance	5-25	8-25	16.58	3.07
Conduct/ morality	5-25	9-22	14.93	2.25

School engagement

A total score of school engagement ranged from 36 to 115 with a mean of 81.24 ($SD = 16.39$). There were five subscales of affective engagement ($M = 18.07$, $SD = 4.31$), behavioral engagement– compliance ($M=10.75$, $SD = 3.01$), behavioral engagement- effortful class ($M =16.52$, $SD = 4.82$), cognitive engagement ($M = 26.23$, $SD = 7.11$), and disengagement ($M = 9.66$, $SD = 3.22$). Details were presented in Table 4-4

Table 4-4 Possible and actual ranges, means, and standard deviations of school-engagement scores for total and its subscale (N = 216)

School engagement	Range		<i>M</i>	<i>SD</i>
	Possible	Actual		
Total	24-120	36-115	81.24	16.39
Subscale				
Affective engagement	5-25	5-25	18.07	4.31
Behavioral engagement compliance	3-15	3-15	10.75	3.01
Behavioral engagement effortful class	5-25	5-25	16.52	4.82
Cognitive engagement	8-40	8-40	26.23	7.11
Disengagement	3-15	3-15	9.66	3.22

Measurement model assessment

The measurement model describes the connections between the latent variables and their manifest indicators (Blunch, 2013). The multiple-indicator approach to measurement of CFA represents literally half the basic rationale of analyzing covariance structures in structural equation modeling (Kline, 2011).

The three following measurement models were tested in this study. There were measurement models of self-concept, school engagement, and resilience.

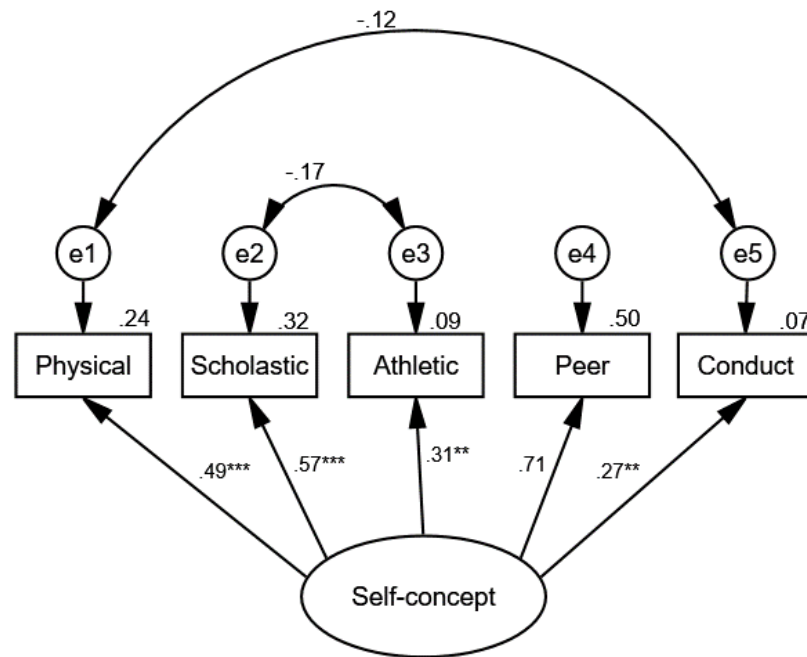
Table 4-5 Results of CFA on the self-concept measurement model

Observed variable	Standardized Factor loading	SE	<i>t</i>	R ²
Peer acceptance	.71	-	-	.501
Physical appearance	.49	.17	4.789***	.243
Scholastic competence	.57	.18	4.878***	.324
Athletic competence	.31	.12	3.154**	.095
Conduct/ morality	.27	.10	2.960**	.073

** $p < .01$, *** $p < .001$

Relative Chi-square = 1.097, $df = 3$, $p = .349$, RMSEA = .021, CFI = .997, GFI = .994

In addition to Table 4-5, the measurement model of self-concept was also illustrated in 4-1



4-1 Measurement model of self-concept

Note ** $p < .01$, *** $p < .001$

Regarding Table 4-5 and 4-1, the measurement model of self-concept was accepted. All observed variables were statistically significant to self-concept factor. The standardized regression weights ranged from 0.27-0.71 and significantly associated with the self-concept at $p < .01$, and $p < .001$. The highest value of regression coefficient was peer acceptance, and the lowest value was conduct/morality.

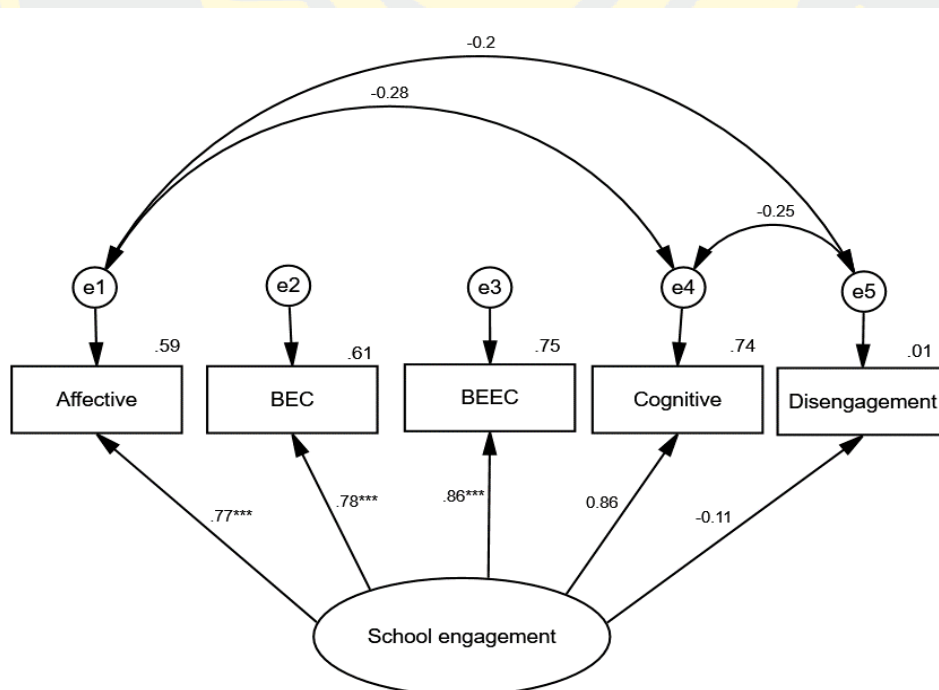
Table 4-6 Results of CFA on the school engagement measurement model

Observed variable	Standardized Factor loading	SE	t	R ²
Cognitive engagement	.86	-	-	.744
Affective engagement	.77	.05	11.652***	.595
Behavioral engagement compliance	.78	.03	12.835***	.607
Behavioral engagement effortful class	.86	.05	14.365***	.747
Disengagement	-.11	.04	-1.533	.013

*** $p < .001$

Relative Chi-square = 1.097, $df = 4$, $p = .387$, RMSEA = .013, CFI= 1.000, GFI=.992

In addition to Table 4-6, the measurement model of school engagement was also illustrated in 4-2



4-2 Measurement model of school engagement

Note *** $p < .001$

Regarding Table 4-6 and 4-2, the measurement model of school engagement was accepted in affective engagement, behavioral engagement compliance, behavioral engagement effortful class, and cognitive engagement. Affective engagement, behavioral engagement compliance, behavioral engagement effortful class, and cognitive engagement was statistically significantly associated with the school engagement factor. Disengagement was not significantly associated with the school engagement factor. The researcher test effect of measurement model between school engagement and resilience (Appendix 5), the result not negative. The standardized regression weights ranged from -0.11-0.86. Affective engagement, behavioral engagement compliance, behavioral engagement effortful class, and cognitive engagement were significant associated with the school engagement at $p < .001$. The highest value of regression coefficient was behavioral engagement effortful class and cognitive engagement.

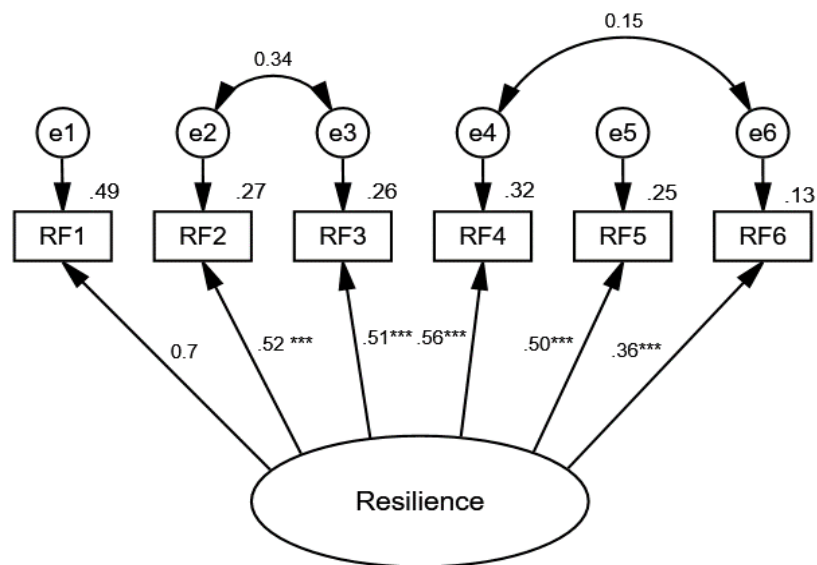
Table 4-7 Results of CFA on the resilience measurement model

Observed variable	Standardized Factor loading	SE	t	R ²
Determination and problem-solving skills	.70	-	-	.494
Personal support	.52	.14	5.358***	.267
Other kinds of support	.51	.08	5.301***	.259
Positive thinking	.56	.10	5.702***	.316
Assertiveness	.50	.07	5.351***	.247
Balance-of-self and social skills	.36	.08	3.950***	.128

*** $p < .001$

Relative Chi-square = 1.155, $df = 7$, $p = .191$, RMSEA = .027, CFI= .995, GFI=.988

In addition to Table 4-7, the measurement model of resilience was also illustrated in 4-3



4-3 Measurement model of resilience

Note *** $p < .001$

Regarding Table 4-7 and 4-3, the measurement model of resilience among early adolescents living in homes for children was accepted. All observed variables were statistically significantly associated with the resilience factor.

The standardized regression weights ranged from 0.36 to 0.70, significant at $p < .001$. The highest value of regression coefficient was determination and problem-solving skills.

Hypothesized model testing

The analysis of moment structure [AMOS] program was used to test how the hypothesized model fit with the sample data and then, to test a modified model.

These results were shown in Table 4-8. The AMOS program is a software program that design to analyze the data knows as structural equation modeling [SEM].

The AMOS program is made up of two modules, Amos Graphics and Amos Basic.

Amos Graphics can specify the model that can automatically draw an entire latent growth model, among other tasks. Amos Basic that users can write scripts in Visual Basic that modify the functionality of Amos Graphics, such as calculating a model fit statistic that is not otherwise reported in default program output. Special features of

Amos include the capability to generate bootstrapped estimates of standard errors and confidence intervals for all parameter estimates (Kline, 2011).

The basics of goodness of fit [GOF] is estimated, model fit compares the theory to reality by assessing the similarity of the estimated covariance matrix (theory) to reality (the observed covariance matrix). The values of any GOF measure result from a mathematical comparison of these two matrices. The closer the values of these two matrices are to each other, the better the model is said to fit (Hair et al., 2014).

Determining model fit is complicated because several model fit criteria have been developed to assist in interpreting structural equation models under different model-building assumptions (Schumacker & Lomax, 2004). Model fit criteria and acceptable fit Interpretation indicate: the minimum chi-square value [CMIN] compares obtained chi-square value with tabled value for given *df* (Schumacker & Lomax, 2004), should be non-significant ($p > .05$), with CMIN/ degrees of freedom (*df*) less than 2, the goodness of fit (GFI) value close to .90 or .95 reflects a good fit (Schumacker & Lomax, 2010), adjusted GFI [AGFI] adjusted for *df*, with .90 or .95 a good model fit (Schumacker & Lomax, 2010), Root-mean square residual [RMR] less than .05 indicates a good model fit, Root-mean-square error of approximation (RMSEA) value of .05 to .08 indicate close fit (Schumacker & Lomax, 2010). The guidelines goodness of fit is based primarily on simulation research that considers different sample sizes, model complexity, and degrees of error in model specification, $N < 250$, number of observed variables (m) $12 < m < 30$: chi-square significant *p*-values even with good fit, CFI .95, SRMR = .8 or less, RMSEA < .80 (Hair et al., 2014).

According to the measures of overall model fit index, the results of the hypothesized model showed that CMIN was equal to 404.74 ($p = .000$, $df = 130$), CMIN/ *df* was 3.13, GFI was .829, AGFI was .775, and RMSEA was .10. These findings indicated the hypothesized model was not supported by the sample data. Consequently, the hypothesized model was modified by modification indices until achieving the criteria (Kline, 2011). Then the results for the modified model found that CMIN was 98.17 ($p = .174$, $df = 86$), CMIN/ *df* was 1.141, GFI was .954, AGFI

was .909, and RMSEA was .03. Therefore, the modified model had a validation index of adequacy of the model at acceptable level.

Table 4-8 Statistics of model fit indices of the hypothesized and the modified models (N=216)

Model fit criterion	Acceptable score	Hypothesized model	Modified model
CMIN	$p > .05$	$\chi^2 = 404.74$ $p = .000 (df = 130)$	$\chi^2 = 98.17$ $p = .174 (df = 86)$
CMIN/ <i>df</i>	< 2	3.13	1.141
GFI	.90-1.00	.829	.954
AGFI	.90-1.00	.775	.909
RMSEA	< .05 to .08	.10	.03

Note CMIN = minimum Chi-square, GFI = goodness of fit index,

AGFI, = Adjusted GFI, RMSEA = Root-mean-square error of approximation

A path diagram of the hypothesized causal model of resilience among early adolescent living in homes for children was tested using parameter estimates and presented in Table 4-8 and 4-4. The hypothesized model proposed relationships among exogenous, mediator, and endogenous variables. The exogenous variable was social connectedness, problem-focused coping. The mediators contained, self-concept, and school engagement. The endogenous variables were self-concept, school engagement, and resilience. The tested path of the hypothesized model showed the parameter estimates and their directions were significant at a significant level of less than .05.

The relationships between exogenous and endogenous variables: There was a significant parameter estimate with a path from social connectedness to self-concept in a positive direction ($\beta = .76, p < .001$), which accounted for 58% of variance ($R^2 = .58$). The significant parameter estimate with a path from social connectedness to school engagement was $\beta = .42 (p < .001)$ and accounted for 17% of the variance

($R^2 = .17$). However, the parameter estimate from social connectedness to resilience were not significant ($\beta = -.09, p > .05$). There was a significant parameter estimate from problem-focused coping to resilience ($\beta = .56, p < .001$). Covariances between exogenous variables: There was a significant parameter estimate from social connectedness to problem-focused coping ($\beta = -13.97, p < .01$).

The relationships between mediator and endogenous variables: The parameter estimate from self-concept to resilience were not significant ($\beta = .27, p > .05$), and a parameter estimate from school engagement to resilience was not significant ($\beta = -.15, p > .05$).

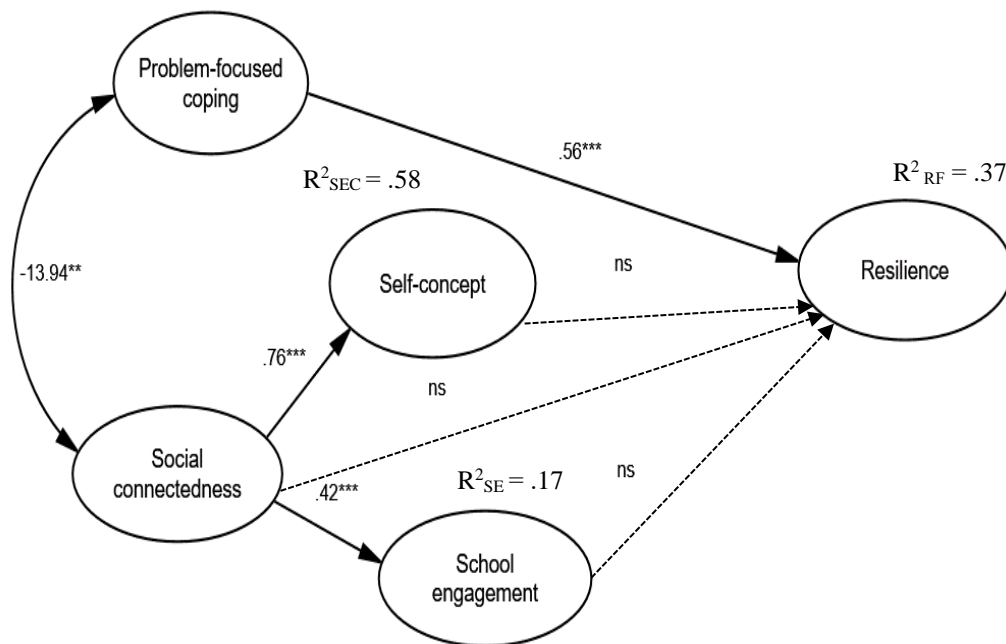
A summary of the direct, indirect, and total effects of hypothesized model of resilience among early adolescent homes for children from the parameter estimates was presented in Table 4-9.

Table 4-9 Standardized regression weight (Estimate), standard errors (SE), critical ratio (C.R.), and p-value of the hypothesized model (N = 216)

Path	Estimate	SE	C.R.	p-value
Social connectedness				
↔ Problem focused coping	-13.94	5.33	-2.62	**
→ Self-concept	.76	.02	6.96	***
→ School engagement	.42	.01	6.00	***
→ Resilience	-.09	.02	-.52	.61
Problem focused coping				
→ Resilience	.56	.02	6.80	***
Self-concept				
→ Resilience	.27	.17	1.51	.13
School engagement				
→ Resilience	-.15	.06	-1.78	.08

** $p < .01$, *** $p < .001$

Note SE = standard error, C.R. = critical ratio



4-4 The hypothesized model of factors affecting resilience among early adolescents living in homes for children

Note ns = non-significant, $*** = p < .001$,

SE = School engagement

SEC = Self-concept

RF = Resilience

—→ significant

- - - - -→ non-significant

Table 4-10 Parameter estimates of direct, indirect, and total effects of the hypothesized model (N = 216)

Variable	Self-concept		School engagement		Resilience		
	DE	IE	DE	IE	DE	IE	TE
Social connectedness	.76**	-	.42***	-	-.09	.15	.06
Problem-focused coping	-	-	-	-	.56***	-	.56***
Self-concept	-	-	-	-	.27	-	.27
School engagement	-	-	-	-	-.15	-	-.15
	R ² = .58		R ² = .17		R ² = .37		

*** $p < .001$

Note DE = Direct effect, IE = Indirect effect, TE = Total effect

Structural equation model

The final step in structural equation modeling is to consider changing to a specified model that has poor model-fit indices and achieve a better model to data fit-that is, model modification (Schumacker & Lomax, 2004).

There were 3 non-significant parameters from the hypothesized model (Table 4-9), including, the parameter estimates from social connectedness to resilience ($p = .61$), the parameter estimates from self-concept to resilience ($p = .13$), and the parameter estimates from school engagement to resilience ($p = .08$).

In the modified model, the significant parameter estimates were present in table 4-11, and 4-5. In this model, the exogenous variables included social connectedness and problem focused coping, the mediators were self-concept, school engagement, and the endogenous variables were self-concept, school engagement, and resilience. The relationships among all variable were as follows.

There were significant parameter estimates from social connectedness to self-concept, which was in a positive direction ($\beta = .63, p < .001$), to school engagement was $\beta = .35 (p < .001)$, which was also in a positive direction. However, the parameter estimates from social connectedness to resilience were not significant ($\beta = .002, p > .05$). The parameter estimates from problem-focused coping to resilience was significant in a positive direction ($\beta = .49, p < .001$).

The parameter estimates from school engagement to resilience was significant in a positive direction ($\beta = .18, p < .05$). The parameter estimates from self-concept to resilience was significant in a positive direction ($\beta = .32, p < .05$).

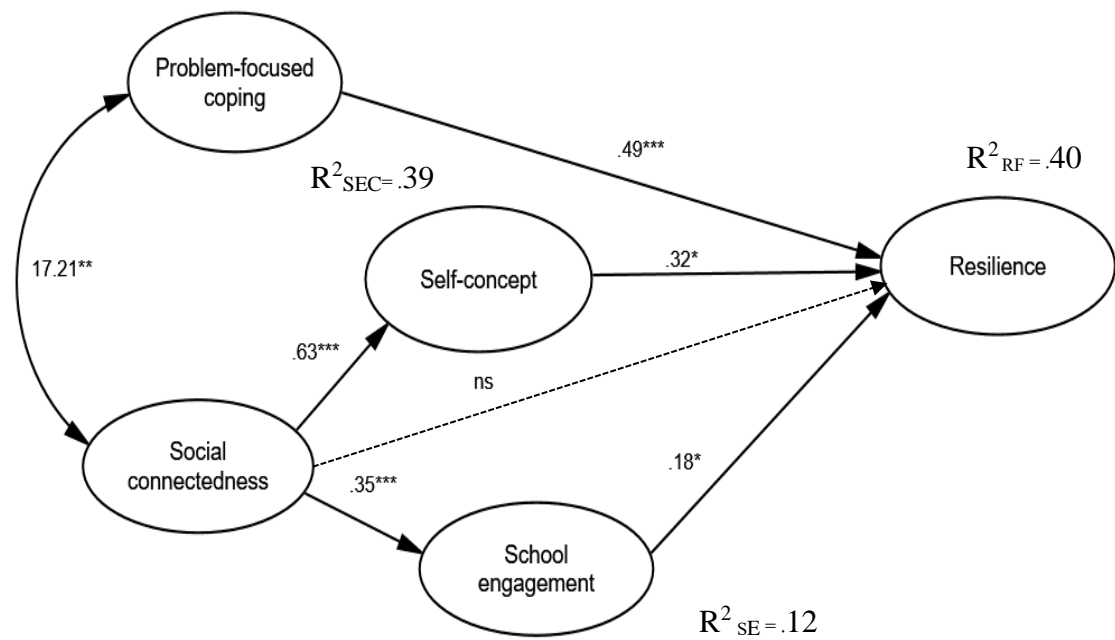
Social connectedness had indirect effects through self-concept and school engagement on resilience with a total effect of $\beta = .27 (p < .001)$. Problem-focused coping had a positive direct effect with a total effect of $\beta = .49 (p < .001)$. Self-concept had a positive direct effect with a total effect of $\beta = .32 (p < .05)$. School engagement had a positive direct effect with a total effect of $\beta = .18 (p < .05)$. Moreover, social connectedness, problem-focused coping, self-concept, and school engagement accounted for 40% ($R^2 = .40$) of the variance in resilience, as presented in table 4-11, and 4-5.

Table 4-11 Standardized regression weight (Estimate), standard errors (SE), critical ratio (C.R.), and *p*-value of the modified model (N = 216)

Path	Estimate	SE	C.R.	<i>p</i>-value
Social connectedness				
↔ Problem-focused coping	17.21	5.33	3.26	**
→ Self-concept	.63	.02	7.48	***
→ School engagement	.35	.03	5.33	***
→ Resilience	.002	.02	.01	.99
Problem-focused coping				
→ Resilience	.49	.02	5.91	***
Self-concept				
→ Resilience	.32	.11	1.97	*
School engagement				
→ Resilience	.18	.03	1.98	*

* $p < .05$, ** $p < .01$, *** $p < .001$

Note SE = standard error, C.R. = critical ratio



4-5 The modified model of factors affecting resilience among early adolescents living in homes for children

Note ns = non-significant, * $p < .05$, ** $p < .01$, *** $p < .001$,

SE = School engagement

SEC = Self-concept

RF = Resilience

—————> significant

-----> non-significant

Table 4-12 Parameter estimates of direct, indirect, and total effects of the modified model (N = 216)

Variable	Self-concept		School engagement		Resilience		
	DE	IE	DE	IE	DE	IE	TE
Social connectedness	.63***	-	.35***	-	-	.27***	.27***
Problem-focused coping	-	-	-	-	.49***	-	.49***
Self-concept	-	-	-	-	.32*	-	.32*
School engagement	-	-	-	-	.18*	-	.18*
	R ² = .39		R ² = .12		R ² = .40		

* $p < .05$, *** $p < .001$

Note DE = Direct Effect, IE = Indirect Effect, TE = Total Effect

Summary of the study findings in responding to research hypotheses

Hypothesis # 1: Social connectedness has a direct positive effect, and indirect effects through self-concept and school engagement on resilience among early adolescents living in homes for children.

The parameter estimates for social connectedness had a non-significant direct effect on resilience in the modified model ($\beta = .002$, $p > .05$). However, it had indirect effects through self-concept and school engagement with a total effect of $\beta = 0.27$ ($p < .001$). Hence, hypothesis # 1 was partially supported.

Hypothesis # 2: Problem-focused coping has a direct positive effect on resilience among early adolescents living in homes for children.

The parameter estimates for problem-focused coping had a significant direct effect on resilience in the modified model ($\beta = .49$, $p < .001$). Thus, this hypothesis was supported.

Hypothesis # 3: Self-concept has a direct positive effect on resilience among early adolescents living in homes for children.

In the modified model, the parameter estimates of self-concept had a positive direct effect on resilience ($\beta = .32, p < .05$). This hypothesis was supported.

Hypothesis # 4: School engagement has a direct positive effect on resilience among early adolescents living in homes for children.

In the modified model, the estimate significantly showed that school engagement had a significant positive direct effect on resilience ($\beta = .18, p < .05$). This hypothesis was supported.

Hypothesis # 5: Social connectedness, problem-focused coping, self-concept and school engagement have affected on resilience among early adolescents living in homes for children.

Problem-focused coping, self-concept, and school engagement had positive direct effects on resilience, while social connectedness had indirect effects. These four factors accounted for 40% ($R^2 = .40$) of the overall variance in the prediction of resilience among the early adolescents living in homes for children.

CHAPTER 5

CONCLUSIONS AND DISCUSSION

This chapter consists of three sections. The first section presents a summary of the study. The second section discusses the study findings responding to research hypotheses. Lastly, limitations, implication, and recommendations were described.

Summary of the study

The purposes of this study were to determine resilience among early adolescents living in homes for children and test a causal model of factors affecting resilience among early adolescents living in homes for children. These factors included social connectedness, problem-focused coping, self-concept, and school engagement. A proportional simple random sampling technique was used to recruit participants of 219 young adolescents aged 10-14 years with a mean of 12.42 years ($SD = 1.31$) living in homes for children in Bangkok metropolitan region, including Bangkok, Pathum Thani, Samut Prakan, Nakhon Pathom, and Nonthaburi provinces. About one half of them were girls (50.2%) and studying in primary school level (57.53%). Their mean GPA was 2.99 ($SD = 0.63$). Data collection was carried out from September to October 2019. Research instruments consisted of 6 self-report questionnaires of a demographic record, the resilience factors scale, the social connectedness scale-revised, A subscale “problem-focused coping” of the coping behavior scale, the self-concept scale, and the classroom engagement inventory. Their reliability of Cronbach’s alpha coefficients were 0.88, 0.80, 0.84, 0.79, and 0.90, respectively. After data cleaning and assumption testing for data analyses, the sample of 216 was remained. Three cases of univariate and multivariate outliers were deleted.

The hypothesized model was tested and found that it was not fit. Thus, testing of the model-fit criteria was repeated and modified by using modification indices until the values of criteria were acceptable. Subsequently, the final modified model showed fit the data very well in that CMIN was equal to 107.43 ($p = .163$, $df = 94$), CMIN/ df was 1.15, GFI was .95, AGFI was .91, and RMSEA was .03.

There were positive direct effects of problem focused-coping ($\beta = .54$), school engagement ($\beta = .54$), and self-concept ($\beta = .22$) on resilience. Social connectedness had no direct effect, but it had indirect effects on resilience through self-concept and school engagement. Problem-focused coping, self-concept, school engagement and social connectedness accounted for 40% ($R^2 = .40$) of the overall variance in resilience.

Discussion of the research findings

One aim of this study was to determine resilience among early adolescents living in homes for children. The finding revealed a total score of resilience ranged from 52 to 94 with a mean of 76.19 ($SD = 7.37$), which was at a high level. Permpool et al. (2011) suggested scores of each level of low (scores 25-50), medium (scores 51-75), and high (scores 76-100). This could be interpreted that early adolescents living in homes for children have guardians to support all necessities for life, including medical aid, education, recreational activities, in order to prepare the children to be re-integrated with the families and society. The theory-based model of the Youth Resilience Framework (Rew & Horner, 2003) explains individual and sociocultural risk factors and protective resources that can influence health outcomes throughout adolescence. In this study, the participate currently studying 94.06% (Table 4-1) in school then school engagement and social connectedness relate to increase resilience. According to Abubakar and Dimitrova (2016) found school connectedness is directly associated with school engagement ($\beta = .62$). Positive and supportive learning and social environments help to build connectedness to schools and engagement in learning. A sense of connectedness to school is a significant protective factor and contributes to building resilience (Cahill, Beadle, Farrelly, Forster, & Smith, 2014).

In addition, the discussion in this chapter is also follow the study hypotheses:

Hypothesis # 1: Social connectedness has a direct positive effect, and indirect effects through self-concept and school engagement on resilience among early adolescents living in homes for children.

The parameter estimates for social connectedness was not significant associated with resilience ($p > .05$). This hypothesis was not supported. This could be interpreted that resilience of early adolescents living in homes for children was not directly affected by social connectedness. However, it had indirect effects on the resilience through self-concept and school engagement. One possible reason might be that although in the youth resilience framework (Rew & Horner, 2003) sociocultural context refer to families and communities that can serve as either risk or protective factors. Social connectedness is protective factor in youths living in normal homes and environment. However, homeless youth are vulnerable to myriad physical and psychosocial problems related to their lack of supportive family relationships by family, stressful environments, and lack of empowering social connectedness with friends and family (Rew et al., 2001). Resilience in children should be less reactive to environmental stressors or more reactive to environmental supports (Lester et al., 2006). However, a significant indirect effect on resilience among early adolescents living in homes for children in modified model through problem- focused coping ($\beta = .49, p < .001$), self-concept ($\beta = .66, p < .001$), and school engagement ($\beta = .46, p < .001$, respectively). This is explained that early adolescent such as homeless youth are vulnerable to myriad physical and psychosocial problems related to their lack of supportive family relationships or maltreatment by family, mobility, stressful environments, and lack of empowering social connectedness with friends and family indicates that psychosocial factors such as feelings of loneliness and hopelessness are related to lack of social connectedness. Adolescents who perceived themselves as resilient, although disconnected from other people, were less lonely, less hopeless, and engaged in fewer life-threatening behaviors than were those who perceived themselves as not being resilient (Rew et al, 2001).

Hypothesis # 2: Problem-focused coping has a direct positive effect on resilience among early adolescents living in homes for children.

The parameter estimates for problem-focused coping had a significant direct effect on resilience ($\beta = .49, p < .001$). Thus, this hypothesis was supported. It is interpreted that early adolescents who had high level of problem-focused coping would have high resilience. Based on the youth resilience framework (Rew & Horner, 2003) and related of literature defined problem-focused coping factors that contribute

to protective resources. Problem-focused coping is viewed as an adaptive mode of coping that involves actively planning or engaging in a specific behavior to overcome the problem causing distress (Folkman & Lazarus, 1985). Consistently, previous studies have shown that positive coping techniques may contribute to resilience (Rice & Liu, 2016). McKay et al. (2018) found the problem-focused coping showed a strong positive association with resilience factor ($\beta = .46$). Therefore, adolescents with higher levels of problem-focused coping tended to have high resilience.

Hypothesis # 3: Self-concept has a direct positive effect on resilience among early adolescents living in homes for children.

Base on the modified model, the parameter estimates significantly showed that self-concept had a direct effect on resilience ($\beta = .32, p < .05$). Therefore, this hypothesis was supported. It is interpreted that early adolescents who had high level of self-concept would have high resilience. Based on reviews related of literature defined self-concept factors that contribute to protective resources. Self-concept represents components of an individual's cognitions related to himself or herself (Toledano, Werch, & Wiens, 2015). Self-concept in adolescence is crystallized during later adolescence as young people organize their self-concept around a set of values, goals, and competencies acquired throughout childhood (Franklin & Prows, 2017). This theory was supported. The finding is consistent with previous studies that the associations between variables of resilience and self-concept showed positive values of moderate magnitude ($r = .358$ to $r = .532$) (Mota & Matos, 2015). Self-concept was found to be positively associated with resilience (Werner, 1984). Moreover, Anthony and Mol (2017) examine the effect of self-concept on happiness and resilience among undergraduate adolescent students, Findings found adolescent who had high self-concept also had high resilience (Anthony & Mol, 2017).

Hypothesis # 4: School engagement has a direct positive effect on resilience among early adolescents living in homes for children.

The parameter estimates for school engagement had a significant positive direct effect on resilience ($\beta = .18, p < .05$) in the modified model. This hypothesis was supported. It is interpreted that early adolescents living in homes for children who had high level of school engagement would have high resilience. Based on the youth resilience framework (Rew & Horner, 2003) and related of literature defined school

engagement that contribute to protective resources. A possible reason might be that, even though in literature review, school engagement is positively influenced by teacher support ($\beta = 0.49, p < 0.01$) (Rodríguez-Fernández et al., 2016). School engagement strengthened resilience among street children by promoting pro-social change, future orientation, opportunities for support, learning of basic skills and restoration of childhood (Malindi & MacHenjedze, 2012).

Hypothesis # 5: Social connectedness, problem-focused coping, self-concept and school engagement have affected on resilience among early adolescents living in homes for children.

In the modified model, problem-focused coping, self-concept and school engagement were positively associated with the resilience, and social connectedness were positively associated with self-concept and school engagement (4-5). These 4 factors of problem-focused coping, self-concept, school engagement, and social connectedness accounted for 40% ($R^2 = .40$) of the overall variance in the prediction of resilience among the early adolescents living in homes for children. As a result, this hypothesis was supported.

The explanation of these findings is that early adolescents who have more self-concept, and school engagement tends to have high resilience. Social connectedness influence on the resilience through self-concept and school engagement. The finding was supported the youth resilience framework (Rew & Horner, 2003), resilience youth access and use protective resource in the face of risks, thus averting long-term negative health outcomes. Sociocultural context including familial factors and community factors such as neighborhood quality, peer relationships, and school environments (Rew & Horner, 2003). Social connectedness is also a significant predictor of school engagement ($\beta = .62$) (Abubakar & Dimitrova, 2016). They might have to increase self-concept, school engagement with impacts their social connectedness. Additionally, social connectedness is increase resilience though self-concept, school engagement. For a young person without a viable secure base in their immediate or extended family of origin, a network or 'base camp' of social support based on work, social, educational, recreational and professional helping relationships is probably the best practical alternative (Gilligan, 2000).

The findings provide a context of causal relationships between the significant predictors and resilience among early adolescents living in homes for children. The finding pointed that significant predictor of resilience was social connectedness, self-concept, problem-focused coping, and school engagement.

Implications to nursing

Implications for nursing practice were presented as the follow.

Nurses and healthcare providers who responsible for adolescent health in community or school could utilize by identifying areas of concern for people involved with early adolescents living in homes for children. The findings on nursing practices indicate that resilience is simultaneously predicted by multiple factors. Therefore, establishing resilience among early adolescents living in homes for children should be outlined through the synthesis of factors in developing a specific program.

Information influenced by this research can help public health nurses and pediatric nurses gain understanding of the associations between social connectedness, problem-focused coping, self-concept, school engagement, and resilience.

In nursing education, nurses can utilize the new knowledge yielded by this study to aware and provide information about factors that influence resilience among early adolescents living in homes for children and communities.

Additionally, Nurses and healthcare providers who responsible for adolescent health in community or school should guide and teach school health teachers and guardians to increase resilience in early adolescents living in homes for children through problem-focused coping, self-concept, and school engagement.

In nursing research, nurses can create effective intervention programs for children growing up with adversities and vulnerabilities to preventing or reduce risk of ameliorating behavioral and emotional problems and increase protective factors of resilience.

Strength and limitations

This study tested a causal model of factors affecting resilience among early adolescents living in homes for children. It was strengthened due to the subjects that were randomly selected from homes for children under the Government's Department of Children and Youth, Ministry of Social Development and Human Security and Non-governmental or private facilities located in the Bangkok Metropolitan Region. Additionally, the sample size of 216 subjects was considered adequate to maintain power and obtain stable parameter estimates and standard errors for the structural equation modeling (Schumacker & Lomax, 2010).

However, when applying this study's findings, some limitations that need to be taken into consideration. A sample was drawn from one region of Thailand. Thus, the generalizability may be limited to other settings and cultures in each region. The different education, some place study at home for children and some place sent to school outside. Moreover, 2 measures of the SES-R and CEI are the first time to be translated into Thai. Therefore, additional 'psychometric properties' tests are needed.

Recommendations for future research

There are recommendations for future research as follows.

First, this study tests only the causal relationships between risk and protective factors of resilience among early adolescents living in homes for children and the results reported that this model explained 40% of resilience. Therefore, the future research should add other strong variables into the model such as self-regulation, temperamental qualities, quality schools, safe neighborhoods. Including these variables may provide a great level of specificity.

Second, a longitudinal design and more settings and cultures should be carried out for further understanding early adolescents living in homes for children. Moreover, experimental intervention should target problem-focused coping, self-concept, school engagement and social connectedness to increase resilience.

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APPENDICES



APPENDIX 1

Institutional review board



**THE INSTITUTIONAL REVIEW BOARD (IRB) FOR GRADUATE STUDIES
FACULTY OF NURSING, BURAPHA UNIVERSITY, THAILAND**

Thesis Title Risk and Protective Factors of Resilience among Early Adolescents Living in Homes for Children: A Model Testing

Name Ms. Narunest Chulakarn
ID: 60810006
Doctor of Philosophy in Nursing Science (International Program)

Number of the IRB approval 05 – 05 – 2562

The Institutional Review Board (IRB) for graduate studies of Faculty of Nursing, Burapha University reviewed your submitted proposal. The contingencies have been addressed and the IRB **approves** the protocol. Work on this project may begin. This approval is for a period of one year from the date of this letter and will require continuation approval if the research project extends beyond **July 18th, 2020**.

If you make any changes to the protocol during the period of this approval, you must submit a revised protocol to the IRB committee for approval before implementing the changes.

Date of Approval July 18th, 2019

Chintana Wacharasin, R.N., Ph.D.

Chairperson of the IRB
Faculty of Nursing, Burapha University, THAILAND

Tel.: 66-038-102823
Fax: 66-038-393476
E-Mail: naruemit@buu.ac.th



APPENDIX 2

Participant information and consent form



เอกสารชี้แจงผู้เข้าร่วมวิจัย
(สำหรับผู้ที่อายุตั้งแต่ 7 ปีแต่ไม่ถึง 12 ปี)

การวิจัยเรื่อง ปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพักสำหรับเด็ก: การทดสอบโมเดลเชิงสาเหตุ

รหัสจริยธรรมการวิจัย 05-05-2552

ชื่อผู้วิจัย นางสาวนฤเนตร จุฬากาญจน์

การวิจัยครั้งนี้ทำขึ้นเพื่ออธิบายและทดสอบโมเดลเชิงสาเหตุของปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ ท่านได้รับเชิญให้เข้าร่วมการวิจัยครั้งนี้เนื่องจากท่านเป็นวัยรุ่นตอนต้นอายุระหว่าง 10-14 ปี ซึ่งเป็นไปตามลักษณะของกลุ่มตัวอย่างที่ศึกษาในครั้งนี้ ผู้เข้าร่วมการวิจัยทั้งหมดมีจำนวน 240 ราย ระยะเวลาที่ใช้ในการเก็บรวบรวมข้อมูลในการทำวิจัยครั้งนี้ระหว่างเดือนกรกฎาคม ถึงเดือนธันวาคม พ.ศ. 2562

เมื่อท่านเข้าร่วมการวิจัยแล้ว สิ่งที่ท่านจะต้องปฏิบัติคือ ตอบแบบสอบถามทั้งหมด 6 ชุด ได้แก่ แบบสอบถามข้อมูลทั่วไป แบบประเมินปัจจัยป้องกันด้านบุคคล แบบประเมินการเชื่อมต่อทางสังคม แบบประเมินพฤติกรรมกรมการเผชิญปัญหาที่มุ่งแก้ไขปัญหา แบบวัดอัตมโนทัศน์ และแบบประเมินการมีส่วนร่วมในชั้นเรียน โดยใช้เวลาตอบแบบสอบถามทั้งหมดประมาณ 35-40 นาที ผู้วิจัยจะขออนุญาตผู้อำนวยการสถานสงเคราะห์และผู้ดูแล/ผู้แทนโดยชอบธรรมในการใช้เวลาและสถานที่เพื่อตอบแบบสอบถามดังกล่าว

การวิจัยนี้จะเป็นประโยชน์ในภาพรวมที่จะนำไปใช้เพื่อเป็นข้อมูลในการจัดกิจกรรมหรือโครงการเพื่อเสริมสร้างความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ต่อไป การเข้าร่วมการวิจัยครั้งนี้เป็นไปด้วยความสมัครใจ ท่านมีสิทธิปฏิเสธ หรือถอนตัวออกจาก การวิจัยได้ตลอดเวลา โดยไม่มีผลกระทบใด ๆ ทั้งสิ้น และไม่ต้องแจ้งให้ผู้วิจัยทราบล่วงหน้า

ผู้วิจัยจะอยู่ในบริเวณใกล้เคียงตลอดเวลาที่ตอบแบบสอบถาม เพื่อให้ท่านซักถามหรือขอคำปรึกษาได้
เมื่อมีปัญหา หรือไม่แน่ใจใด ๆ ในการตอบแบบสอบถาม

ผู้วิจัยจะเก็บรักษาความเป็นส่วนตัวของท่าน โดยการใส่รหัสตัวเลขแทนการระบุชื่อ
ข้อมูลที่เป็นกระดาษจะถูกเก็บอย่างมิดชิด และปลอดภัยในแฟ้ม ใส่ตู้เก็บเอกสารและล็อกกุญแจ
ตลอดเวลา สำหรับข้อมูลในคอมพิวเตอร์จะมีรหัสผ่าน ผู้วิจัยและอาจารย์ที่ปรึกษาหลักเท่านั้น
ที่สามารถเข้าถึงข้อมูลได้ ผลการวิจัยจะเผยแพร่ในภาพรวม และข้อมูลทั้งหมดจะถูกทำลายภายหลัง
การเผยแพร่ผลการวิจัยเรียบร้อยแล้ว

หากท่านมีปัญหาหรือข้อสงสัยประการใด สามารถสอบถามได้โดยตรงจากผู้วิจัย
ในวันทำการรวบรวมข้อมูล หรือสามารถติดต่อสอบถามเกี่ยวกับการวิจัยครั้งนี้ได้ตลอดเวลาที่
นางสาวนงนุช จุฬากาญจน์ หมายเลขโทรศัพท์ 096-857-8229 หรือที่ รองศาสตราจารย์ ดร.นุจรี
ไชยมงคล อาจารย์ที่ปรึกษาหลัก หมายเลขโทรศัพท์ 038-102841

นางสาวนงนุช จุฬากาญจน์
ผู้วิจัย

หากท่านได้รับการปฏิบัติที่ไม่ตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงนี้ ท่านจะสามารถแจ้งให้ประธาน
คณะกรรมการพิจารณาจริยธรรมฯ ทราบได้ที่ เลขานุการคณะกรรมการจริยธรรมฯ ฝ่ายวิจัย
คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา โทร. 038-102823



เอกสารชี้แจงผู้เข้าร่วมวิจัย

(สำหรับผู้ที่มียายุตั้งแต่ 12 ปีแต่ไม่ถึง 18 ปี)

การวิจัยเรื่อง ปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพักสำหรับเด็ก: การทดสอบ โมเดลเชิงสาเหตุ

รหัสจริยธรรมการวิจัย 05-05-2552

ชื่อผู้วิจัย นางสาวนฤเนตร จุฬากาญจน์

การวิจัยครั้งนี้ทำขึ้นเพื่ออธิบายและทดสอบ โมเดลเชิงสาเหตุของปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ ท่านได้รับเชิญให้เข้าร่วมการวิจัยครั้งนี้เนื่องจากท่านเป็นวัยรุ่นตอนต้นอายุระหว่าง 10-14 ปี ซึ่งเป็นไปตามลักษณะของกลุ่มตัวอย่างที่ศึกษาในครั้งนี้ มีผู้เข้าร่วมการวิจัยทั้งหมดมีจำนวน 240 ราย ระยะเวลาที่ใช้ในการเก็บรวบรวมข้อมูลในการทำวิจัยครั้งนี้ระหว่างเดือนกรกฎาคม ถึงเดือนธันวาคม พ.ศ. 2562

เมื่อท่านเข้าร่วมการวิจัยแล้ว สิ่งที่ท่านจะต้องปฏิบัติคือ ตอบแบบสอบถามทั้งหมด 6 ชุด ได้แก่ แบบสอบถามข้อมูลทั่วไป แบบประเมินปัจจัยป้องกันด้านบุคคล แบบประเมินการเชื่อมต่อทางสังคม แบบประเมินพฤติกรรมและการเผชิญปัญหาที่มุ่งแก้ไขปัญหา แบบประเมินอัตมโนทัศน์ และแบบประเมินความผูกพันของโรงเรียน โดยใช้เวลาตอบแบบสอบถามทั้งหมดประมาณ 35-40 นาที ผู้วิจัยจะขออนุญาตผู้อำนวยการสถานสงเคราะห์และผู้ดูแล/ผู้แทนโดยชอบธรรมในการใช้เวลาและสถานที่เพื่อตอบแบบสอบถามดังกล่าว

การวิจัยนี้จะเป็นประโยชน์ในภาพรวมที่จะนำไปใช้เพื่อเป็นข้อมูลในการจัดกิจกรรมหรือโครงการเพื่อเสริมสร้างความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ต่อไป การเข้าร่วมการวิจัยครั้งนี้เป็นไปด้วยความสมัครใจ ท่านมีสิทธิปฏิเสธ หรือถอนตัวออกจาก การวิจัยได้ตลอดเวลา โดยไม่มีผลกระทบใด ๆ ทั้งสิ้น และไม่ต้องแจ้งให้ผู้วิจัยทราบล่วงหน้า ผู้วิจัย

จะอยู่ในบริเวณใกล้เคียงตลอดเวลาที่ตอบแบบสอบถาม เพื่อให้ท่านซักถามหรือขอคำปรึกษาได้
เมื่อมีปัญหา หรือไม่แน่ใจใด ๆ ในการตอบแบบสอบถาม

ผู้วิจัยจะเก็บรักษาความเป็นส่วนตัวของท่าน โดยการใส่รหัสตัวเลขแทนการระบุชื่อ ข้อมูล
ที่เป็นกระดาษจะถูกเก็บอย่างมิดชิด และปลอดภัยในแฟ้ม ใส่ตู้เก็บเอกสารและล็อกกุญแจ
ตลอดเวลา สำหรับข้อมูลในคอมพิวเตอร์จะมีรหัสผ่าน ผู้วิจัยและอาจารย์ที่ปรึกษาหลักเท่านั้น
ที่สามารถเข้าถึงข้อมูลได้ ผลการวิจัยจะเผยแพร่ในภาพรวม และข้อมูลทั้งหมดจะถูกทำลายภายหลัง
การเผยแพร่ผลการวิจัยเรียบร้อยแล้ว

หากท่านมีปัญหาหรือข้อสงสัยประการใด สามารถสอบถามได้โดยตรงจากผู้วิจัย
ในวันทำการรวบรวมข้อมูล หรือสามารถติดต่อสอบถามเกี่ยวกับการวิจัยครั้งนี้ได้ตลอดเวลาที่
นางสาวนงนุช จุฬากาญจน์ หมายเลขโทรศัพท์ 096-857-8229 หรือที่ รองศาสตราจารย์ ดร.นุจรี
ไชยมงคล อาจารย์ที่ปรึกษาหลัก หมายเลขโทรศัพท์ 038-102841

นางสาวนงนุช จุฬากาญจน์
ผู้วิจัย

หากท่านได้รับการปฏิบัติที่ไม่ตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงนี้ ท่านจะสามารถแจ้งให้ประธาน
คณะกรรมการพิจารณาจริยธรรมฯ ทราบได้ที่ เลขานุการคณะกรรมการจริยธรรมฯ ฝ่ายวิจัย
คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา โทร. 038-102823



เอกสารชี้แจงผู้เข้าร่วมวิจัย (สำหรับผู้ปกครอง)

การวิจัยเรื่อง ปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพักสำหรับเด็ก: การทดสอบโมเดลเชิงสาเหตุ

รหัสจริยธรรมการวิจัย 05-05-2562

ชื่อผู้วิจัย นางสาวเนตุนทร จุฬากาญจน์

การวิจัยครั้งนี้ทำขึ้นเพื่ออธิบายและทดสอบโมเดลเชิงสาเหตุของปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ ซึ่งเด็กในปกครองท่านได้รับเชิญให้เข้าร่วมการวิจัยครั้งนี้เนื่องจากเด็กในปกครองของท่านเป็นวัยรุ่นตอนต้นอายุระหว่าง 10-14 ปี ซึ่งเป็นไปตามลักษณะของกลุ่มตัวอย่างที่ศึกษาในครั้งนี ผู้เข้าร่วมการวิจัยทั้งหมดมีจำนวน 240 ราย ระยะเวลาที่ใช้ในการเก็บรวบรวมข้อมูลในการทำวิจัยครั้งนี้ระหว่างเดือนกรกฎาคม ถึงเดือนธันวาคม พ.ศ. 2562

เมื่อเด็กในปกครองของท่านเข้าร่วมการวิจัยแล้ว สิ่งที่เด็กในปกครองของท่านจะต้องปฏิบัติคือ ตอบแบบสอบถามทั้งหมด 6 ชุด ได้แก่ แบบสอบถามข้อมูลทั่วไป แบบประเมินปัจจัยป้องกันด้านบุคคล แบบประเมินการเชื่อมต่อทางสังคม แบบประเมินพฤติกรรมการเผชิญปัญหาที่มุ่งแก้ไขปัญหาแบบวัดอัตโนมัติ และแบบประเมินการมีส่วนร่วมในชั้นเรียน โดยใช้เวลาตอบแบบสอบถามทั้งหมดประมาณ 35-40 นาที ผู้วิจัยจะขออนุญาตผู้อำนวยการสถานสงเคราะห์และผู้ดูแล/ผู้แทนโดยชอบธรรมในการใช้เวลาและสถานที่เพื่อตอบแบบสอบถามดังกล่าว

การวิจัยนี้จะเป็นประโยชน์ในภาพรวมที่จะนำไปใช้เพื่อเป็นข้อมูลในการจัดกิจกรรมหรือโครงการเพื่อเสริมสร้างความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ต่อไป การเข้าร่วมการวิจัยครั้งนี้เป็นไปด้วยความสมัครใจ เด็กในปกครองของท่านมีสิทธิปฏิเสธหรือถอนตัวออกจากกรวิจัยได้ตลอดเวลา โดยไม่มีผลกระทบใด ๆ ทั้งสิ้น และไม่ต้องแจ้งให้ผู้วิจัยทราบล่วงหน้า ผู้วิจัยจะอยู่ในบริเวณใกล้เคียงตลอดเวลาที่ตอบแบบสอบถาม เพื่อให้

เด็กในปกครองของท่านซักถามหรือขอคำปรึกษาได้เมื่อมีปัญหา หรือไม่แน่ใจใด ๆ ในการตอบแบบสอบถาม

ผู้วิจัยจะเก็บรักษาความเป็นส่วนตัวของเด็กในปกครองของท่าน โดยการใส่รหัสตัวเลขแทนการระบุชื่อ ข้อมูลที่เป็นกระดาษจะถูกเก็บอย่างมิดชิด และปลอดภัยในแฟ้ม ใส่ตู้เก็บเอกสาร และล็อกกุญแจตลอดเวลา สำหรับข้อมูลในคอมพิวเตอร์จะมีรหัสผ่าน ผู้วิจัยและอาจารย์ที่ปรึกษาหลักเท่านั้นที่สามารถเข้าถึงข้อมูลได้ ผลการวิจัยจะเผยแพร่ในภาพรวม และข้อมูลทั้งหมดจะถูกทำลายภายหลังการเผยแพร่ผลการวิจัยเรียบร้อยแล้ว

หากท่านผู้ปกครองมีปัญหาหรือข้อสงสัยประการใด สามารถสอบถามได้โดยตรงจากผู้วิจัยในวันทำการรวบรวมข้อมูล หรือสามารถติดต่อสอบถามเกี่ยวกับการวิจัยครั้งนี้ได้ตลอดเวลาที่นางสาวนงนุช จุฬากาญจน์ หมายเลขโทรศัพท์ 096-857-8229 หรือที่ รองศาสตราจารย์ ดร.นุจรีย์ ไชยมงคล อาจารย์ที่ปรึกษาหลัก หมายเลขโทรศัพท์ 038-102841

นางสาวนงนุช จุฬากาญจน์
ผู้วิจัย

หากเด็กในปกครองของท่านได้รับการปฏิบัติที่ไม่ตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงนี้ ท่านจะสามารถแจ้งให้ประธานคณะกรรมการพิจารณาจริยธรรมฯ ทราบได้ที่เลขานุการคณะกรรมการจริยธรรมฯ ฝ่ายวิจัย คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา โทร. 038-102823



ใบยินยอมเข้าร่วมการวิจัย

หัวข้อคุณฉันทินพนธ์ เรื่อง ปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจ
ในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพักสำหรับเด็ก: การทดสอบโมเดลเชิงสาเหตุ

วันที่ให้คำยินยอม วันที่ เดือน พ.ศ.

ก่อนที่จะลงนามในใบยินยอมเข้าร่วมการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัย
ถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย ประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียดและ
มีความเข้าใจดีแล้ว ข้าพเจ้ายินดีเข้าร่วมโครงการวิจัยนี้ด้วยความสมัครใจ และข้าพเจ้ามีสิทธิ
ที่จะบอกเลิกการเข้าร่วมในโครงการวิจัยนี้เมื่อใดก็ได้ และการบอกเลิกการเข้าร่วมการวิจัยนี้
จะไม่มีผลกระทบต่อข้าพเจ้า

ผู้วิจัยรับรองว่าจะตอบคำถามต่าง ๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปิดบัง
ซ่อนเร้นจนข้าพเจ้าพอใจ ข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าจะถูกเก็บเป็นความลับและจะเปิดเผย
ในภาพรวมที่เป็นการสรุปผลการวิจัย

ข้าพเจ้าได้อ่านขอความข้างต้นแล้ว และมีความเข้าใจดีทุกประการ และได้ลงนาม
ในใบยินยอมนี้ด้วยความเต็มใจ

ลงนาม.....ผู้ยินยอม

(.....)

ลงนาม.....พยาน

(.....)

ลงนาม.....ผู้วิจัย

(นางสาวนระฤนตร จุฬากาญจน์)

ในกรณีที่ผู้ถูกทดลองยังไม่บรรลุนิติภาวะ จะต้องได้รับการยินยอมจากผู้ปกครอง
หรือผู้แทนโดยชอบธรรม (เกี่ยวข้องกับกลุ่มตัวอย่าง.....)

ลงนาม.....ผู้ปกครอง/ ผู้แทนโดยชอบธรรม

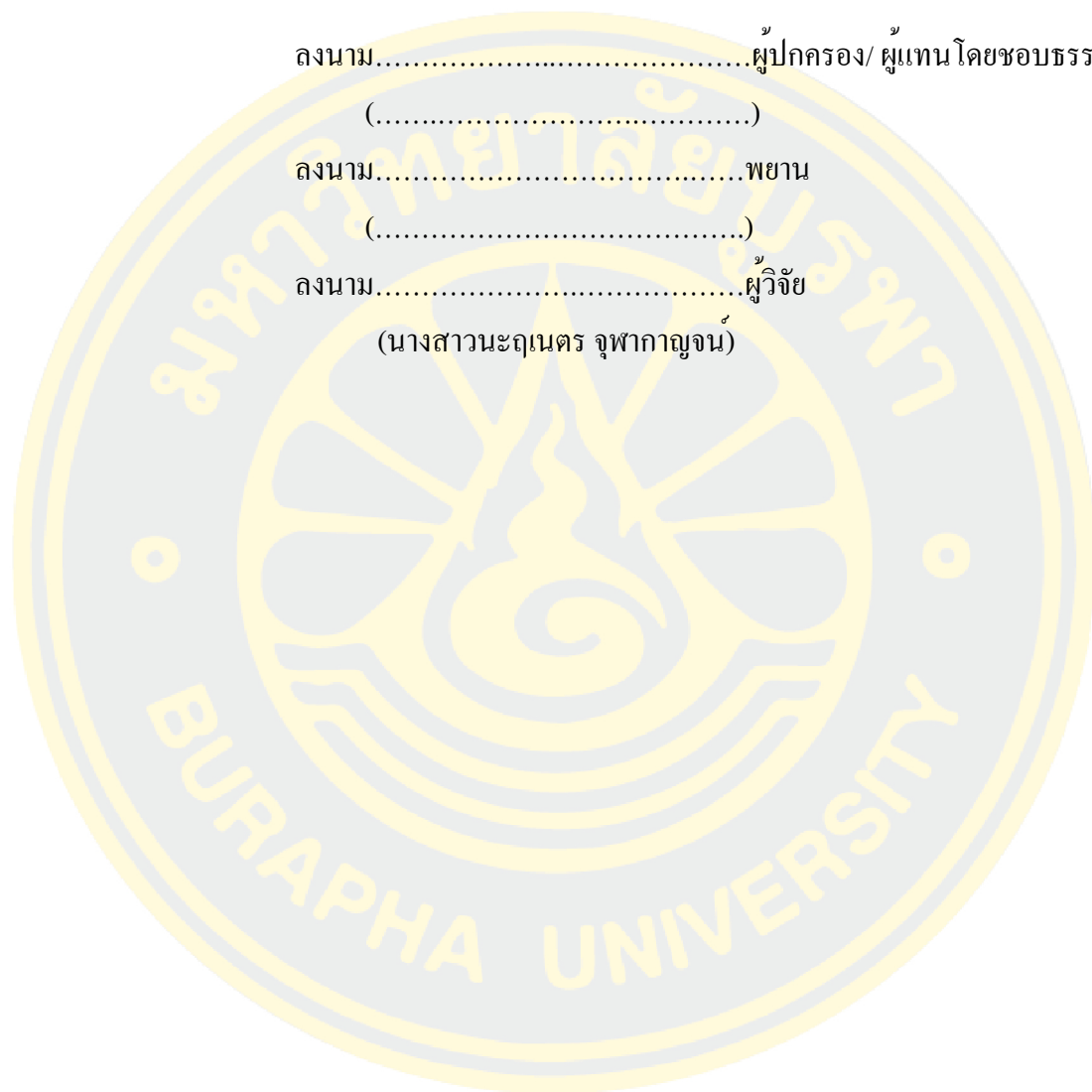
(.....)

ลงนาม.....พยาน

(.....)

ลงนาม.....ผู้วิจัย

(นางสาวนงนุช จุฬากาญจน์)





APPENDIX 3

Questionnaires

ชุดแบบสอบถามการวิจัย

เรื่อง

“ปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพัก
สำหรับเด็ก: การทดสอบโมเดลเชิงสาเหตุ”

วัตถุประสงค์

แบบสอบถามการวิจัยเรื่อง “ปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในบ้านพักสำหรับเด็ก: การทดสอบโมเดลเชิงสาเหตุ” นี้จัดทำขึ้นเพื่อเพื่ออธิบายและทดสอบโมเดลเชิงสาเหตุของปัจจัยเสี่ยงและปัจจัยปกป้องของความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ ซึ่งผลการวิจัยจะนำไปใช้เป็นแนวทางการจัดกิจกรรมหรือโครงการเพื่อเสริมสร้างความเข้มแข็งทางจิตใจในเด็กวัยรุ่นตอนต้นที่อาศัยอยู่ในสถานสงเคราะห์ต่อไป

แบบสอบถามมี 6 ชุด คือ

ชุดที่ 1 แบบสอบถามข้อมูลทั่วไป

ชุดที่ 2 แบบประเมินปัจจัยป้องกันด้านบุคคล (The resilience factors scale)

ชุดที่ 3 แบบประเมินการเชื่อมต่อทางสังคม (The social connectedness scale-revised)

ชุดที่ 4 แบบประเมินพฤติกรรม coping ที่มุ่งแก้ไขปัญหา (A subscale “problem-focused coping” of the coping behavior questionnaire)

ชุดที่ 5 แบบวัดอัตมโนทัศน์ (The self-concept scale)

ชุดที่ 6 แบบประเมินการมีส่วนร่วมในชั้นเรียน (The classroom engagement inventory: CEI)

2. แบบประเมินปัจจัยป้องกันด้านบุคคล (The resilience factors scale) จำนวน 25 ข้อ

คำชี้แจง

คำถามส่วนนี้เกี่ยวกับคุณลักษณะของท่าน ทำเครื่องหมาย ✓ หมายเลขที่ตรงกับท่านมากที่สุด กรุณาตอบทุกคำถาม โดยเลือกหนึ่งหมายเลขในแต่ละข้อ

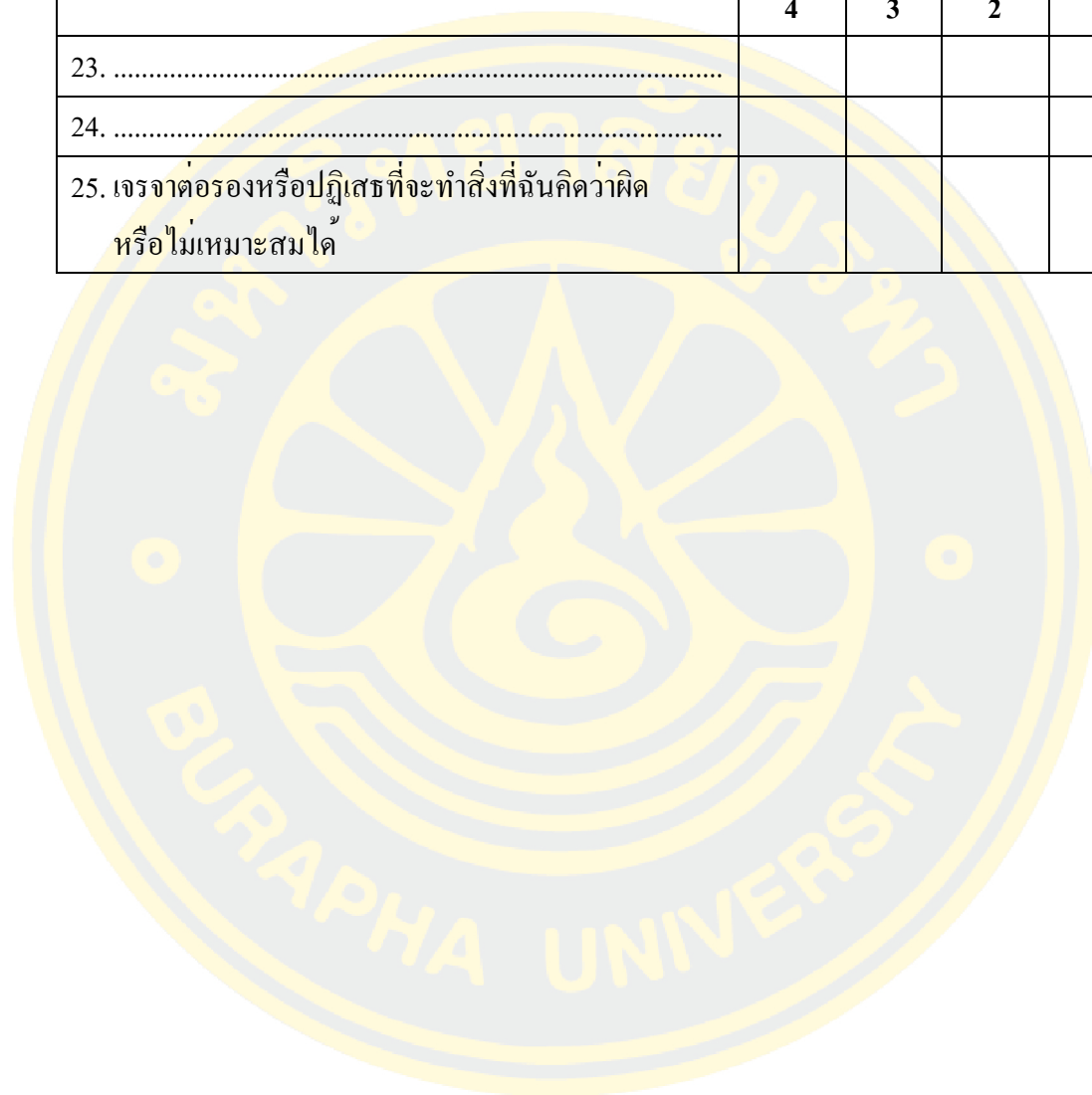
เกณฑ์ในการตอบ:

- 4 = จริงอย่างยิ่ง หมายถึง ข้อความเกี่ยวกับคุณลักษณะดังกล่าว เป็นจริง และตรงกับตัวคุณมากที่สุด
- 3 = จริง หมายถึง ข้อความเกี่ยวกับคุณลักษณะดังกล่าว เป็นจริง และตรงกับตัวคุณค่อนข้างมาก
- 2 = ไม่จริง หมายถึง ข้อความเกี่ยวกับคุณลักษณะดังกล่าว ไม่จริง หรือตรงกับตัวคุณเพียงเล็กน้อย
- 1 = ไม่จริงอย่างยิ่ง หมายถึง ข้อความเกี่ยวกับคุณลักษณะดังกล่าว ไม่จริง และไม่ตรงกับตัวคุณเลย

ข้อความ	คะแนน			
	จริงอย่างยิ่ง	จริง	ไม่จริง	ไม่จริงอย่างยิ่ง
	4	3	2	1
ฉันมี				
1. คนในครอบครัวที่อาศัยอยู่ในปัจจุบันของฉันอย่างน้อย 1 คนที่ฉันไว้วางใจ และเขาเหล่านั้นรักฉันอย่างจริงใจ				
2. คนภายนอกครอบครัวที่อาศัยอยู่ในปัจจุบันของฉันอย่างน้อย 1 คน ที่ฉันสามารถไว้วางใจได้ในทุกเรื่อง				
3.				
4.				

ข้อความ	คะแนน			
	จริง อย่างยิ่ง	จริง	ไม่จริง	ไม่จริง อย่างยิ่ง
	4	3	2	1
5.				
6.				
7.				
8. ครอบครัวที่อาศัยอยู่ในปัจจุบันและชุมชนแวดล้อม ที่มั่นคง ปลอดภัย				
9.				
ฉันเป็น				
10. คนที่เคารพตัวเองและผู้อื่นแม้ว่าจะถูกทำร้ายร่างกาย หรือจิตใจ หรือแม่เขาเหล่านั้นจะเป็นต้นเหตุแห่ง ความทุกข์ยากที่เกิดขึ้นกับฉัน				
11. คนที่รับผิดชอบต่อสิ่งที่ฉันทำและยอมรับผลที่ตามมา				
12.				
13.				
14.				
15.				
16.				
17. คนที่เชื่อมั่นต่อหลักศาสนาและรู้ว่าอะไรผิดอะไรถูก				
ฉันสามารถ				
18.				
19.				
20. จดจ่ออยู่กับงานที่ฉันรับผิดชอบจนกระทั่งงานนั้น สำเร็จ				
21.				
22.				

ข้อความ	คะแนน			
	จริง อย่างยิ่ง	จริง	ไม่จริง	ไม่จริง อย่างยิ่ง
	4	3	2	1
23.				
24.				
25. เจริญต่อรองหรือปฏิเสธที่จะทำสิ่งที่ฉันคิดว่าผิด หรือไม่เหมาะสมได้				



3. การเชื่อมต่อทางสังคม

(The social connectedness scale-revised) จำนวน 20 ข้อ

คำชี้แจง

ต่อไปนี้เป็นข้อความที่สะท้อนถึงวิธีต่าง ๆ ที่ท่านมองตนเอง ให้ท่านให้คะแนนระดับที่เห็นด้วยหรือไม่เห็นด้วยกับแต่ละข้อความที่ใช้ระดับต่อไปนี้ (1 = ไม่เห็นด้วยอย่างยิ่งและ 6 = เห็นด้วยอย่างยิ่ง) ไม่มีคำตอบที่ถูกหรือผิด ทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับท่านมากที่สุด กรุณาตอบทุกคำถาม โดยเลือกหนึ่งหมายเลขในแต่ละข้อ

ข้อความ	คะแนน					
	ไม่เห็นด้วยอย่างยิ่ง	ไม่เห็นด้วย	ไม่เห็นด้วยเล็กน้อย	เห็นด้วยเล็กน้อย	เห็นด้วย	เห็นด้วยอย่างยิ่ง
	1	2	3	4	5	6
1. ฉันรู้สึกสะดวกใจเมื่ออยู่ต่อหน้าคนแปลกหน้า						
2.						
3.						
4.						
5.						
6.						
7. เมื่ออยู่ท่ามกลางผู้คนที่ยังไม่รู้จักรั ฉันก็ไม่รู้สึกว่าเป็นส่วนหนึ่งของผู้คนเหล่านั้น						
8.						
9.						
10. ฉันรู้สึกว่าคนที่ฉันรู้จักเข้าใจฉัน						
11.						

ข้อความ	คะแนน					
	ไม่เห็นด้วยอย่างยิ่ง	ไม่เห็นด้วย	ไม่เห็นด้วยเล็กน้อย	เห็นด้วยเล็กน้อย	เห็นด้วย	เห็นด้วยอย่างยิ่ง
	1	2	3	4	5	6
12. ฉันสามารถมีปฏิสัมพันธ์กับเพื่อนได้						
13.						
14.						
15.						
16. ฉันสามารถติดต่อกับคนอื่น ๆ ได้						
17.						
18.						
19.						
20. ฉันไม่รู้ดีกว่าฉันมีส่วนร่วมกับใครหรือกลุ่มใด						

เลขที่แบบสอบถาม 4/.....

4. แบบประเมินพฤติกรรมการเผชิญปัญหาที่มุ่งแก้ไขปัญหา (A subscale “problem-focused coping” of the coping behavior questionnaire) จำนวน 12 ข้อ

คำชี้แจง

แบบสอบถามส่วนนี้แต่ละข้อความ หมายถึง การปฏิบัติในการจัดการกับเหตุการณ์หรือปัญหาที่เกิดขึ้น ขอให้ท่านพิจารณาข้อความแต่ละข้อ แล้วทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับความเป็นจริงที่ท่านปฏิบัติมากที่สุด แต่ละข้อเลือกตอบได้ช่องเดียวเท่านั้น

ข้อความ	ระดับการปฏิบัติ				
	ไม่เคย	นาน ๆ ครั้ง	บางครั้ง	บ่อยครั้ง	ทุกครั้งที่
	1	2	3	4	5
1. เมื่อเรียนไม่ทันเพื่อน ข้าพเจ้าจะพยายามอ่านหนังสือให้มากขึ้น					
2. เมื่อครูอธิบายแล้วยังไม่ชัดเจนในเรื่องใด ข้าพเจ้ามักหาข้อมูลเพิ่มเติม					
3.					
4.					
5.					
6.					
7.					
8. เมื่อมีปัญหาไม่เข้าใจกับทางบ้าน ข้าพเจ้าพูดคุยกับคนที่สามารถให้คำแนะนำได้					

ข้อความ	ระดับการปฏิบัติ				
	ไม่ เคย	นาน ๆ ครั้ง	บาง ครั้ง	บ่อย ครั้ง	ทุก ครั้ง
	1	2	3	4	5
9.					
10.					
11. เมื่อมีเรื่องขัดแย้งกันภายในครอบครัวที่อาศัยอยู่ใน ปัจจุบัน ชาวเขาหาทางแก้ปัญหาเหล่านั้น					
12.					

เลขที่แบบสอบถาม 5/.....

5. แบบวัดอัตมโนทัศน์

(The self-concept scale) จำนวน 25 ข้อ

คำชี้แจง

จงพิจารณาตนเองในสภาพปัจจุบัน จากข้อคำถามต่อไปนี้ แล้วทำเครื่องหมาย ✓ ในช่องคำตอบที่ตรงกับความรู้สึกของท่านมากที่สุด แต่ละข้อเลือกตอบได้ช่องเดียวเท่านั้น

ข้อคำถาม	ไม่เห็นด้วยอย่างยิ่ง 1	ไม่เห็นด้วย 2	ไม่แน่ใจ 3	เห็นด้วย 4	เห็นด้วยอย่างยิ่ง 5
1. ฉันพอใจกับน้ำหนักและส่วนสูงของฉัน					
2.					
3.					
4.					
5.					
6.					
7.					
8. ฉันรู้สึกว่ามันเก่งเท่ากับเพื่อน ๆ					
9. ฉันเรียนได้ดีมาก					
10. ฉันทำงานที่อาจารย์มอบหมายเสร็จก่อนขงชา					
11.					
12.					
13. ฉันรู้สึกว่ามันเล่นกีฬาได้ดีกว่าคนอื่นที่รุ่นเดียวกัน					
14.					

ข้อคำถาม	ไม่เห็น ด้วย อย่างยิ่ง 1	ไม่เห็น ด้วย 2	ไม่ แน่ใจ 3	เห็นด้วย 4	เห็นด้วย อย่างยิ่ง 5
15.					
16.					
17.					
18. ฉันทำกิจกรรมใดเพื่อนส่วนใหญ่มักจะ มาร่วมทำกับฉัน					
19. ฉันมีเพื่อนสนิท หลายคน					
20.					
21.					
22.					
23. ฉันทำสิ่งต่าง ๆ ทั้งที่รู้ว่าไม่ควรทำ					
24. ฉันแสดงออกตามธรรมชาติไม่เสแสร้ง					
25.					

เลขที่แบบสอบถาม 6/.....

6. แบบประเมินการมีส่วนร่วมในชั้นเรียน

(The classroom engagement inventory: CEI) จำนวน 24 ข้อ

คำชี้แจง

ท่านทำสิ่งต่อไปนี้ในห้องเรียนนี้บ่อยแค่ไหน ทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับท่านมากที่สุด กรุณาตอบทุกคำถาม โดยเลือกหนึ่งหมายเลขในแต่ละข้อ

ข้อความ	คะแนน				
	ไม่เคย 1	แทบจะ ไม่เคย 2	ทุก เดือน 3	ทุก สัปดาห์ 4	ทุกวันที่ โรงเรียน 5
1. ฉันทำงานกับเพื่อนนักเรียนคนอื่น และพวกเราเรียนรู้กันและกัน					
2.					
3.					
4.					
5. ฉันมีส่วนร่วมในการอภิปรายในชั้นเรียน อย่างกระตือรือร้น					
6.					
7.					
8. ฉันคิดอย่างรอบคอบเมื่อฉันทำ แบบทดสอบในชั้นเรียนนี้					
9.					
10.					
11. ฉันให้ความสนใจกับสิ่งที่ฉันควรจะทำ					
12. ฉันปล่อยให้จิตใจของฉันล่องลอย					
13.					

ข้อความ	คะแนน				
	ไม่เคย 1	แทบจะ ไม่เคย 2	ทุก เดือน 3	ทุก สัปดาห์ 4	ทุกวันที่ โรงเรียน 5
14. ฉันไม่ต้องการหยุดทำงานในตอนท้าย ๆ ของชั้นเรียน (อยากทำต่อไปเรื่อย ๆ)					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23. ถ้าฉันทำผิดฉันพยายามหาว่าฉันผิด ตรงไหน					
24. หากฉันไม่แน่ใจเกี่ยวกับบางสิ่งบางอย่าง ฉันจะตรวจสอบจากหนังสือของฉันหรือ ใช้สิ่งอื่น ๆ เช่น แผนภูมิ					

โปรดตรวจสอบอีกครั้งว่าท่านตอบครบทุกข้อคำถาม ขอขอบคุณ



APPENDIX 4

Permission instruments



ที่ อว.๖๗.๓๔/วท ๘๓

คณะพยาบาลศาสตร์ มหาวิทยาลัยธรรมศาสตร์
ตำบลคลองหนึ่ง อำเภอคลองหลวง
ปทุมธานี ๑๒๑๒๐

๑๗ มิถุนายน ๒๕๖๒

เรื่อง อนุญาตให้ใช้เครื่องมือวิจัย
เรียน คณบดีคณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา
อ้างถึง หนังสือ ที่ ศร ๖๒๐๖/๐๕๓๓ ลงวันที่ ๓๐ พฤษภาคม ๒๕๖๒

ตามหนังสือที่อ้างถึง นางสาวเนตุนทร จุฬากาญจน์ ได้รับอนุมัติเค้าโครงขุขุภัณฑ์ เรื่อง " RISK AND PROTECTIVE FACTORS OF RESILIENCE AMONG EARLY ADOLESCENTS LIVING IN HOMES FOR CHILDREN: A MODEL TESTING" จึงมีความประสงค์ขอใช้เครื่องมือการวิจัยคือ THE RESILIENCE FACTORS SCALE ซึ่งเป็นส่วนหนึ่งของงานวิจัย เรื่อง "DEVELOPMENT AND TESTING OF THE RESILIENCE FACTORS SCALE FOR THW ADOLESCENTS" ของ รองศาสตราจารย์ ดร.นิตยา ตากวิริยะนันท์ คณะพยาบาลศาสตร์ มหาวิทยาลัยธรรมศาสตร์ นั้น

ในการนี้ คณะพยาบาลศาสตร์ มหาวิทยาลัยธรรมศาสตร์ พิจารณาแล้วยินยอมอนุญาตให้ดำเนินการใช้เครื่องมือวิจัยดังกล่าวได้โดยขอให้ติดต่อประสานงานการใช้เครื่องมือวิจัยฯ ได้ที่ รองศาสตราจารย์ ดร.นิตยา ตากวิริยะนันท์ โทร.๐๘๑-๓๐๒๗๒๓๑ หรือ E-mail: niditya๖๐๓@yahoo.com

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.เยาวรัตน์ มีชัยมิม)

รองคณบดีฝ่ายวิจัยและบัณฑิตศึกษา

ปฏิบัติการแทนคณบดีคณะพยาบาลศาสตร์ มหาวิทยาลัยธรรมศาสตร์

สำนักงานเลขานุการคณะพยาบาลศาสตร์

โทร. ๐-๒๕๕๖-๕๒๑๑๓ ต่อ ๗๗๗๐

โทรสาร ๐-๒๕๕๖-๕๓๘๑



Ple Naka <ple.narunest@gmail.com>

ขออนุญาตใช้เครื่องมือวิจัยค่ะ

3 ข้อความ

Ple Naka <ple.narunest@gmail.com>

18 พฤษภาคม 2562 14:17

ถึง: Nidaya603@yahoo.com

สำเนา: Nujjaree Chalmongkol <nujjaree@nurse.buu.ac.th>

เรียน รศ.ดร.นิตยา ตากวิริยะนันท์

ดิฉันนางสาวระฤเนศ จุฬากาญจน์ นิสิตหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา กำลังทำวิทยานิพนธ์เรื่อง Risk and protective factors of resilience among early adolescents living in homes for children: A model testing โดยมี รศ.ดร.นุจรีย์ ไชยมงคล เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก

ได้ศึกษาทศด้อยเรื่อง Development and testing of the Resilience Factors Scale for Thai adolescents และวิทยานิพนธ์เรื่องผลของโปรแกรมเสริมสร้างปัจจัยปกป้องต่อความสามารถในการยืดหยุ่นเชิงจิตวิทยาของเยาวชนชายในสถานพินิจและคุ้มครองเด็กและเยาวชน ซึ่งได้นำแบบประเมินปัจจัยป้องกันด้านบุคคลสำหรับวัยรุ่นไทย (the Resilience Factors Scale) มาใช้ ดิฉันมีความสนใจในเครื่องมือชื่อ the Resilience Factors Scale ซึ่งมีความสอดคล้องกับบริบทของประเทศไทย จึงขออนุญาตอาจารย์เพื่อใช้เครื่องมือดังกล่าว หากอาจารย์อนุญาตให้ใช้เครื่องมือ ดิฉันขออนุญาตขอเครื่องมือฉบับเต็มและเกณฑ์การนำไปใช้

ขอแสดงความนับถือ

นางสาวระฤเนศ จุฬากาญจน์

นิสิตหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์
มหาวิทยาลัยบูรพา

Nidaya Takviriyannun <nidaya603@yahoo.com>

23 พฤษภาคม 2562 13:32

ถึง: Ple Naka <ple.narunest@gmail.com>


ยินดีค่ะ ส่งตัวเครื่องมือและ article ที่รายงานคุณสมบัติของเครื่องมือนี้ไว้มาให้สำหรับอ้างอิงค่ะ


NT

Nidtaya Takviriyannun, RN., Ph.D. (Nursing)
Faculty of Nursing
Thammasat University
Rangsit Campus
Klong Luang, 12120
Pratumthani, Thailand
Piyachart Building, Room 1233
Tel: 66-2-986-9213 ext. 7382

[ข้อความที่แก้ไขโดยผู้ส่ง]

เอกสารแนบ 2 ฉบับ

 The Resilience Factors Scale_Thai_RS25_2008.pdf
88K

 Resilience scale_NHS 2008.pdf
67K

le Naka <ple.narunest@gmail.com>
: Nidtaya Takviriyannun <nidtaya603@yahoo.com>
นาง: Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>

23 พฤษภาคม 2562 13:37

ขอพระคุณต่ออาจารย์
นฤนทร จุฬารักษ์



BURAPHA UNIVERSITY



Ple Naka <ple.narunest@gmail.com>

Permission request of using the instrument

2 ข้อความ

Ple Naka <ple.narunest@gmail.com>

18 พฤษภาคม 2562 13:55

ถึง: richlee@umn.edu, Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>

- Dear Richard M. Lee, Department of Psychology, University of Minnesota.
I, Ms. Narunest Chulakarn, a doctoral nursing candidate at Burapha university, Thailand. My proposal dissertation title is 'Risk and protective factors of resilience among early adolescents living in homes for children: A model testing' under supervision of Assoc. Prof. Dr. Nujjaree chaimongkol. I read your article "Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model". I am very interest in your tool named "the Social Connectedness Scale—Revised" to use in my study.

Therefore, I would like to ask your permission to use this tool and translated into Thai language. If you kindly allow me to utilize it, could you please provide the questionnaire and its psychometric properties ?

If you have any questions, please contact me at ple.narunest@gmail.com. I would like to thank you in advance for your kindness and any of your attention given to this request is greatly appreciated.

Best Regards,

Narunest Chulakarn

Richard Lee <richlee@umn.edu>

19 พฤษภาคม 2562 21:45

ถึง: Ple Naka <ple.narunest@gmail.com>

ผ่าน: Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>


Thank you for the interest in my measures. I have attached a copy of the scales, including different versions, scoring procedures, select references, and terms for usage. There is no separate scoring or interpretation manual. There also is no recommended cut-off score as the scale should be used as a continuous variable. I recommend using the SCS with both positive and negative items, rather than the original 8-item version with all negative items. In addition to the 20-item revised version, I included a 2008 paper in which we dropped five items from the 20-item revised scale due to overlap with extraversion. If you need to translate one of the scales, please use a translation-backtranslation method with independent translators. I also request a copy of any translation and the English back-translation. You may use any version. Please read the terms for usage described in the attached documents and let me know if they are acceptable prior to use of the scales. There is no copyright form beyond responding to this email. Best, Rich


 Richard M Lee, PhD, LP

Editor, Cultural Diversity and Ethnic Minority Psychology
Distinguished McKnight University Professor and Associate Chair for Research
Department of Psychology | University of Minnesota
612-625-6357 | Websites: Dept and Lab
[He/Him/His]

[ข้อความนี้ซ่อนอยู่]

เอกสารแนบ 2 ฉบับ

 **SCS for use in research.pdf**
88K

 **Lee Dean Jung (2008).pdf**
350K





Ple Naka <ple.narunest@gmail.com>

ตอบกลับ: ขออนุญาตใช้เครื่องมือวิจัยคะ

2 ข้อความ

Ratchana Singthong <singthong.r@hotmail.com>

18 มิถุนายน 2562 05:50

ถึง: Ple Naka <ple.narunest@gmail.com>

สำเนา: Ratchana Singthong <singthong.r@hotmail.com>

ขอบคุณที่สนใจผลงานวิทยานิพนธ์และยินดีให้นำเครื่องมือตามที่ระบุมา เพื่อนำไปใช้เป็นเครื่องมือศึกษาวิจัยต่อคะ

จาก: Ple Naka <ple.narunest@gmail.com>

ส่ง: 17 มิถุนายน 2562 10:48:31

ถึง: singthong.r@hotmail.com; Nujjaree Chaimongkol

ชื่อเรื่อง: ขออนุญาตใช้เครื่องมือวิจัยคะ

เรียน คุณรัชชณา สิงห์ทอง

กลุ่มงานจิตเวช โรงพยาบาลองค์การบริหารส่วนจังหวัดสุราษฎร์ธานี

ดิฉันนางสาวนฤเนตร จุฬากาญจน์ นิสิตหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา กำลังทำดุษฎีนิพนธ์เรื่อง Risk and protective factors of resilience among early adolescents living in homes for children: A model testing โดยมี รศ.ดร.นุจรีย์ ไชยมงคล เป็นอาจารย์ที่ปรึกษาดุษฎีนิพนธ์หลัก

ได้ศึกษาวิทยานิพนธ์เรื่องความสัมพันธ์ระหว่างพฤติกรรมเผชิญปัญหา ความพึงพอใจในชีวิต แรงสนับสนุนทางสังคม และภาวะซึมเศร้า ของนักเรียนมัธยมศึกษาตอนต้น โรงเรียนขยายโอกาสทางการศึกษา อำเภอเมือง จังหวัดสุราษฎร์ธานี จากการทบทวนวรรณกรรมพบว่าแบบสอบถามเกี่ยวกับพฤติกรรมการเผชิญปัญหา(The Coping Behavior Questionnaire)มีความสอดคล้องกับกลุ่มประชากรที่ศึกษา ดิฉันจึงขออนุญาตผู้วิจัยเพื่อใช้เครื่องมือดังกล่าว โดยขออนุญาตนำเครื่องมือไปใช้ในส่วนของพฤติกรรมการเผชิญปัญหาที่มุ่งแก้ปัญหา หากผู้วิจัยอนุญาตให้ใช้เครื่องมือขอให้ยืนยันการอนุญาตตอบกลับทาง e-mail ทั้งนี้ดิฉันขออนุญาตขอเครื่องมือวิจัยฉบับเต็มและเกณฑ์การนำไปใช้

ขอแสดงความนับถือ



Ple Naka <ple.narunest@gmail.com>

ขออนุญาตใช้เครื่องมือวิจัยค่ะ

3 ข้อความ

Ple Naka <ple.narunest@gmail.com>

18 มิถุนายน 2562 18:07

ถึง: kingkaew.sub@gmail.com

สำเนา: Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>

- เรียน รองศาสตราจารย์ กิ่งแก้ว ทรัพย์พระวงศ์ ภาควิชาศิลปศาสตร์ คณะมนุษยศาสตร์ มหาวิทยาลัยกรุงเทพ

ดิฉันนางสาวเนญเนตร จุฬากาญจน์ นิสิตหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา กำลังทำดุษฎีนิพนธ์เรื่อง Risk and protective factors of resilience among early adolescents living in homes for children: A model testing โดยมี รศ.ดร.นุจรีย์ ไชยมงคล เป็นอาจารย์ที่ปรึกษาดุษฎีนิพนธ์หลัก

ดิฉันได้ศึกษาบทความเรื่อง บทบาทการส่งผ่านของอัตมโนทัศน์ในการศึกษา อิทธิพลของการคิดเชิงบวก และภูมิหลังของนักศึกษาที่มีต่อสุขภาวะทางจิต ดิฉันมีความสนใจในเครื่องมือข้อแบบวัดอัตมโนทัศน์ (SC) จากการทบทวนวรรณกรรมพบว่าเครื่องมือมีความสอดคล้องกับบริบทของวัยรุ่นในประเทศไทย จึงขออนุญาตอาจารย์เพื่อใช้เครื่องมือดังกล่าว หากอาจารย์อนุญาตให้ใช้เครื่องมือ ดิฉันขออนุญาตอาจารย์ช่วยส่งเครื่องมือฉบับเต็มและเกณฑ์การนำไปใช้กลับมาจาก e-mail นี้ โดยจะนำหนังสือขออนุญาตใช้เครื่องมือวิจัยจากคณะพยาบาลส่งให้อาจารย์อย่างเป็นทางการต่อไปค่ะ

ขอบพระคุณค่ะ

นางสาวเนญเนตร จุฬากาญจน์

นิสิตหลักสูตรปรัชญาดุษฎีบัณฑิต
สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ)
คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา

Kingkaew Subprawong <kingkaew.sub@gmail.com>
ถึง: Ple Naka <ple.narunest@gmail.com>

18 มิถุนายน 2562 21:48

คุณเนญเนตรคะ

ข้อดีที่ครูหาพบไม่ยาก จึงขอส่งไฟล์แบบวัดอัตโนมัทัศน์ (Self concept) มาพร้อมเฉลยให้เลยคะ สิคงคือคำถามเชิงลบ ต้องกลับคะแนน ก่อนรวมคะแนนทั้งหมด (รายละเอียดในการสร้างและเกณฑ์การให้คะแนน ดูจากบทความได้เลยคะ) ถ้าสงสัยอะไรก็โทรมาถามได้คะ ใช้เบอร์ที่คุยกันวันนี้ เพราะครูไม่ค่อยได้เปิดเมลล์แล้ว คุณสามารถนำไปพัฒนาปรับปรุงภาษา แล้วหาค่า Reliability ใหม่จากกลุ่มวิจัยรุ่นที่คุณจะศึกษาคะ ขอให้โชคดีคะ

กึ่งแก้ว ทรัพย์พระวงศ์ (ไม่มีสังกัดแล้วคะ)

[ข้อความนี้เกี่ยวข้องกับคุณหรือไม่]

 แบบวัด Self-concept .doc
62K

Ple Naka <ple.narunest@gmail.com>
ถึง: Kingkaew Subprawong <kingkaew.sub@gmail.com>

18 มิถุนายน 2562 22:12

ขอบพระคุณอาจารย์เป็นอย่างสูงคะ

———— เนญเนตร จุฬากาญจน์

นิสิตหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ)
คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา





Ple Naka <ple.narunest@gmail.com>

Permission request of using the instrument

3 ข้อความ

Ple Naka <ple.narunest@gmail.com>

12 มิถุนายน 2562 15:35

ถึง: wangze@missouri.edu

สำเนา: Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>

- Dear Ze Wang, Department of Education, School, and Counseling Psychology,
University of Missouri.

I, Ms. Narunest Chulakarn, a doctoral nursing candidate at Burapha university, Thailand. My proposal dissertation title is 'Risk and protective factors of resilience among early adolescents living in homes for children: A model testing' under supervision of Assoc. Prof. Dr. Nujjaree chaimongkol. I read your article "Measuring Engagement in Fourth to Twelfth Grade Classrooms: The Classroom Engagement Inventory". I am very interest in your tool named "the The Classroom Engagement Inventory (CEI)" to use in my study.

Therefore, I would like to ask your permission to use this tool 24 items with a 5-point rating scale and translated into Thai language. If you kindly allow me to utilize it, could you please provide the questionnaire and its psychometric properties ?.

If you have any questions, please contact me at ple.narunest@gmail.com. I would like to thank you in advance for your kindness and any of your attention given to this request is greatly appreciated.

Best Regards,
Narunest Chulakarn

Wang, Ze <WangZe@missouri.edu>

13 มิถุนายน 2562 00:11

ถึง: Ple Naka <ple.narunest@gmail.com>

สำเนา: Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>

Hi Narunest,

You have my permission to use the CEI. Attached is a copy of the instrument.

Ze Wang, Ph.D.

Associate Professor

Statistics, Measurement, and Evaluation in Education

Department of Educational, School and Counseling Psychology


University of Missouri

Phone: (573) 882-7602

Email: WangZe@missouri.edu

Webpage: <http://faculty.missouri.edu/wangze>

[ข้อความนี้ส่งมาจากเครื่องคอมพิวเตอร์]

 CEI for copying.pdf
37K

Ple Naka <ple.narunest@gmail.com>

รับ: "Wang, Ze" <WangZe@missouri.edu>

ส่งมา: Nujjaree Chaimongkol <nujjaree@nurse.buu.ac.th>

13 มิถุนายน 2562 07:59

Thank you very much
Best Regards,
Narunest Chulakam



BURAPHA UNIVERSITY



APPENDIX 5
Additional analyses

Table Appendix 5-1 Standardized scores of continuous variables for testing univariate outliers (n = 219)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
1	-2.98941	-1.17757	-1.65267	-.24665	-2.47657
2	-.45451	1.04158	-.81679	-.24665	-.54276
3	-.70800	-.35999	-.29437	.05853	-1.31628
4	1.91140	.22399	1.37739	-.12458	.10184
5	.89744	.80798	2.00430	.97407	.61752
6	1.82690	.57439	.12357	.42475	.61752
7	-2.90491	-1.06078	-2.17510	-.79598	-1.44520
8	.05247	-.71038	-1.44370	-1.04013	.10184
9	-.53900	-.59359	.64599	-.36873	-1.31628
10	-1.04598	1.97595	-4.16031*	-1.40634	3.06701
11	.98194	-.24319	-.81679	-.12458	-.28492
12	.22147	-.00960	.75048	1.46236	-.80060
13	1.23543	-.00960	1.06393	.97407	.10184
14	1.06643	1.39197	.95945	.85200	-.15600
15	1.15093	-.12640	1.27290	1.09615	-.02708
16	.05247	-.35999	-1.23473	.05853	.23076
17	1.57341	-.35999	.64599	.30267	.23076
18	1.74241	-1.29437	1.37739	-1.52842	-.54276
19	1.15093	-1.29437	.85496	-1.16220	-.41384
20	-.20102	.22399	-.29437	.36371	-.67168
21	-1.97545	-1.29437	.75048	-.85702	-.28492
22	.55945	-1.52796	-.18989	-1.77256	.87536
23	.13697	-1.17757	-.50334	-1.89464	-1.05844
24	.72845	-.24319	1.79533	-.12458	-.41384
25	1.31992	-.12640	-.18989	-.24665	-.67168
26	2.08039	-.82718	1.06393	-.12458	.10184
27	-.11652	-.00960	-.81679	-.55184	.61752

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
28	1.91140	.57439	.01908	.11956	1.00428
29	-.45451	-.82718	-.39886	-1.04013	-1.05844
30	.13697	.34079	.54151	.05853	.61752
31	-1.21498	.57439	-.29437	.24164	-1.57413
32	.55945	.69118	.43702	.48578	-2.08981
33	.05247	-2.11195	-.60783	-.97909	-1.70305
34	-.62350	-1.17757	-1.02576	-1.34531	-.92952
35	-.45451	1.39197	-1.33922	-.61287	2.29349
36	1.74241	-1.17757	.85496	-.42976	-.41384
37	-.70800	.34079	-1.02576	-.55184	.35968
38	-.79249	.22399	-.92128	-.85702	.87536
39	-.53900	-.82718	-.34292	-.12458	-.67168
40	.13697	-.35999	-1.18203	-1.16220	-.28492
41	-.96149	-.59359	-.51075	-1.52842	-1.57413
42	-.79249	2.20955	.99965	1.09615	1.64889
43	-.20102	-.35999	-.67857	-.85702	-.02708
44	.89744	.10720	.24445	.05853	.35968
45	-.53900	-.71038	-.25901	-1.28427	-.54276
46	1.06643	-.12640	.66401	.85200	.48860
47	.39046	-1.41117	.74792	.36371	.48860
48	-1.29947	-.35999	-.34292	-.36873	-.41384
49	2.08039	1.62556	1.50312	1.70651	.35968
50	-.20102	.34079	-.34292	.42475	-.41384
51	-.96149	-.24319	.07663	-1.46738	-.41384
52	1.15093	.22399	.16054	.36371	.23076
53	1.65791	.80798	.49619	1.15718	.23076
54	.30596	-.47679	-.59466	-1.04013	-1.70305

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
55	-1.29947	-.71038	-.59466	-1.22324	-.80060
56	-.45451	-1.64476	-2.18896	-2.32189	-1.83197
57	-.37001	.45759	.66401	-.24665	.61752
58	-.70800	1.15837	.58010	.24164	1.00428
59	.05247	-1.06078	-1.09812	-.61287	-.41384
60	-1.46847	-.71038	-2.77634	-.91805	-.15600
61	.05247	1.85916	1.08356	.54682	1.77781
62	-.20102	-1.52796	-1.34985	-1.34531	1.13321
63	-1.63746	-.24319	-.25901	-.49080	-.15600
64	2.92536	2.20955	.32836	-.79598	1.13321
65	.13697	-1.29437	-.84639	-.85702	1.26213
66	-.11652	-.71038	-.00728	.72993	-.02708
67	.39046	1.15837	.41227	1.52340	.61752
68	-.45451	.10720	1.16747	.24164	1.00428
69	-.62350	-1.29437	-2.35678	-.85702	-.80060
70	-1.13048	.22399	.07663	-.61287	-.41384
71	-.87699	-.00960	.16054	-.42976	-.41384
72	-.28551	-.35999	-.59466	-.55184	-1.31628
73	-.28551	-.71038	-.84639	-1.04013	-.41384
74	-.70800	.10720	-.34292	.18060	-.80060
75	-.87699	1.74236	2.09049	.79096	-.02708
76	-1.13048	.69118	1.41921	1.58444	-.41384
77	-.96149	2.20955	3.01351	1.58444	.10184
78	.98194	.92478	.07663	-.12458	-1.31628
79	-1.04598	-2.46234	-.50334	-.24665	1.51997
80	1.31992	-.47679	.95945	.60786	.23076
81	.89744	.57439	.95945	1.58444	1.00428

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
82	-.11652	-1.17757	-.71231	.18060	-1.05844
83	-.03202	1.97595	.33254	.54682	2.16457
84	.55945	-1.06078	-.39886	.24164	-3.12117
85	-.70800	-.24319	.12357	-.36873	-3.63685*
86	.30596	.45759	-.92128	-.73494	.10184
87	-1.04598	-1.76156	-1.33922	-.91805	-.41384
88	-.87699	-.94398	-.71231	-.00251	.74644
89	.05247	1.15837	.64599	.79096	-.15600
90	-1.55296	-.59359	-.39886	-.67391	-.02708
91	.22147	.92478	.64599	1.21822	1.13321
92	.22147	-.59359	.33254	-1.65049	1.13321
93	-.53900	.22399	-.71231	-.24665	-.28492
94	-.28551	-.47679	.54151	-.24665	.23076
95	-.20102	-.82718	-1.65267	-.00251	-1.96089
96	-.96149	-.00960	.85496	1.03511	-.54276
97	-.87699	-1.64476	-.50334	-.30769	-.92952
98	-.62350	-.59359	-1.96613	-.36873	-.15600
99	.13697	-.71038	.33254	.18060	-.15600
100	-.28551	-.94398	-.50334	-1.22324	-.67168
101	.30596	.57439	-.60783	.05853	-.41384
102	-.28551	-1.06078	-.92128	-.36873	-.41384
103	-.45451	-.00960	-.60783	-1.04013	-.02708
104	-.70800	-.35999	-.60783	1.09615	.23076
105	-.11652	2.09275	1.37739	1.76755	1.64889
106	.81294	2.32635	1.27290	1.09615	1.51997
107	1.31992	2.67674	1.48187	1.58444	1.00428
108	.72845	-.12640	-.92128	-.61287	-.02708

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
109	.05247	-.00960	.54151	-1.52842	.10184
110	.22147	-.12640	.95945	-.42976	.23076
111	-1.21498	-.35999	-.29437	-.12458	-.15600
112	-.37001	1.04158	-.50334	-.91805	1.64889
113	-.45451	1.04158	-.60783	-.61287	1.51997
114	1.15093	-.00960	-.18989	-.12458	-1.05844
115	.30596	.92478	.54151	1.03511	1.26213
116	-1.29947	-.47679	-1.44370	-1.77256	.10184
117	-.87699	-1.99515	-.60783	-2.32189	1.51997
118	-.45451	-1.17757	-1.86164	-.55184	-.67168
119	-.28551	.69118	-1.23473	.42475	-.54276
120	-.87699	1.27517	-1.65267	-2.19982	1.64889
121	.05247	-1.17757	.22805	.18060	-.92952
122	-.62350	.10720	-.71231	-.67391	.23076
123	.13697	-.00960	-.81679	-.12458	-1.31628
124	-1.46847	2.44314	-.39886	1.03511	.35968
125	-.28551	-.12640	-.08540	.66889	-.41384
126	.64395	1.62556	.43702	1.03511	2.03565
127	1.65791	.80798	.95945	1.58444	1.64889
128	-.79249	1.15837	.75048	.30267	1.13321
129	-.70800	-.00960	.43702	.79096	.87536
130	-.20102	.34079	.12357	-.79598	1.00428
131	-1.63746	.80798	-.08540	-.24665	-.28492
132	-.28551	.22399	-.81679	-.55184	.48860
133	.39046	1.39197	.85496	.48578	.48860
134	-.03202	-.12640	-.29437	1.46236	-.28492
135	.30596	-.71038	-1.75716	-2.44396	.87536

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
136	1.82690	1.97595	2.42224	1.76755	1.39105
137	.13697	-.47679	-1.33922	.48578	-1.44520
138	.47496	-.47679	-.81679	-.06354	-.28492
139	.05247	-.00960	-.50334	1.40133	.35968
140	.05247	-1.17757	.33254	-.18562	-.92952
141	-.20102	.92478	1.69084	1.46236	.61752
142	-.53900	-.47679	-.60783	.18060	-.92952
143	.55945	-1.64476	.01908	.48578	-.54276
144	-.37001	.45759	-.18989	-.79598	-.80060
145	2.58737	1.74236	1.16842	1.82858	1.51997
146	1.82690	.45759	1.27290	.42475	.74644
147	1.74241	1.04158	1.79533	1.82858	.74644
148	1.06643	-.00960	1.16842	1.21822	.87536
149	-.53900	-.12640	.33254	-.12458	-1.31628
150	-.37001	-.71038	.22805	.30267	.10184
151	.89744	1.85916	.64599	1.15718	1.77781
152	.39046	1.15837	1.27290	1.46236	1.00428
153	1.99590	.10720	.33254	-.18562	-1.05844
154	-.96149	-1.06078	-.18989	.24164	-1.57413
155	.64395	-.35999	.64599	.30267	-.15600
156	-.87699	-.12640	-.39886	.54682	-.02708
157	-.11652	-1.06078	.95945	-.18562	-1.05844
158	.30596	.22399	1.06393	1.58444	.35968
159	.64395	.92478	-.08540	-.73494	-.80060
160	-.37001	-.35999	.01908	.66889	.48860
161	-.79249	-1.52796	-.60783	-.91805	-.41384
162	1.40442	1.04158	.64599	.85200	.48860

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
163	.22147	-.82718	-.18989	-1.16220	-.80060
164	1.31992	.45759	1.48187	.54682	.48860
165	.47496	-.12640	-.39886	-1.34531	-.28492
166	.22147	-.12640	.64599	.91304	-.15600
167	-.11652	-.71038	-.81679	.30267	.87536
168	-.45451	-.47679	.75048	-.42976	.48860
169	.89744	1.15837	.43702	1.21822	.61752
170	-.87699	-.47679	-1.13025	.79096	-.41384
171	1.06643	-.12640	.43702	-.24665	-1.18736
172	.72845	.57439	-.39886	.60786	-.92952
173	1.06643	.45759	1.48187	-.00251	-.67168
174	-.28551	1.62556	.43702	.72993	.74644
175	-.70800	-1.41117	-.08540	-2.26085	-.02708
176	.39046	-1.17757	.33254	.97407	-1.31628
177	-.45451	-.12640	.43702	-.00251	-.54276
178	.72845	-.12640	.22805	.42475	-.02708
179	-1.29947	-.59359	-.18989	-1.22324	-.54276
180	-.53900	.10720	.22805	1.64547	-.15600
181	.47496	1.62556	1.48187	.66889	1.00428
182	-1.89095	-.59359	-.71231	-1.40634	-.80060
183	.13697	-1.17757	-1.13025	-1.34531	1.13321
184	-.53900	.69118	-1.54819	-2.74914	1.39105
185	-1.46847	.80798	-1.54819	-.30769	-.54276
186	-1.13048	.69118	.01908	-.55184	-.15600
187	.22147	-.71038	-.50334	-.85702	.10184
188	-.53900	-2.11195	-.71231	-.79598	-.15600
189	-1.21498	-.82718	-1.65267	-.24665	.10184

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
190	1.40442	1.04158	.75048	.66889	2.03565
191	1.23543	.10720	.12357	1.15718	.61752
192	-.03202	-.24319	-.71231	.18060	-.15600
193	1.74241	.45759	1.37739	1.27926	1.26213
194	-1.29947	-1.76156	-.60783	-2.07774	-.28492
195	-.20102	-.47679	1.79533	.24164	.23076
196	-1.04598	.57439	.22805	.18060	1.51997
197	-.28551	-.82718	-.39886	.54682	-1.05844
198	-.28551	-.12640	-.08540	.54682	-.02708
199	1.15093	-1.41117	.43702	-1.65049	.10184
200	-1.72196	-.35999	.43702	-.55184	-.41384
201	-.03202	.57439	.85496	.66889	1.00428
202	-1.04598	.57439	.22805	.24164	2.03565
203	-1.55296	-.59359	-.81679	-.55184	-1.05844
204	.55945	.10720	.22805	1.52340	.10184
205	-.87699	-.35999	-.39886	-.73494	-1.57413
206	-1.29947	-.47679	-.71231	-1.28427	-.54276
207	.89744	1.50877	.75048	2.07273	-.15600
208	.22147	-.35999	.12357	.18060	-.67168
209	1.48892	1.15837	1.06393	1.82858	-.02708
210	1.74241	1.15837	1.06393	1.88962	.35968
211	2.08039	.80798	1.48187	1.40133	.74644
212	1.15093	-.71038	-.08540	-.12458	1.13321
213	-.62350	1.04158	.12357	1.46236	-.28492
214	-.28551	-.12640	.54151	-.30769	-.80060
215	-.53900	.10720	-1.33922	-.00251	.10184
216	1.74241	.80798	2.63121	1.09615	.87536

Table Appendix 5-1 (continued)

Id	ZSocial connectedness	Zproblem focuscoping	ZSelfconcept	ZSchool engagement	ZResilience
217	-.96149	1.27517	.64599	1.52340	1.13321
218	-.96149	-1.76156	-.29437	.24164	-2.21873
219	-.53900	.34079	.12357	.66889	-.28492

Note ID = number of samples

*Outlier ID # 10,85

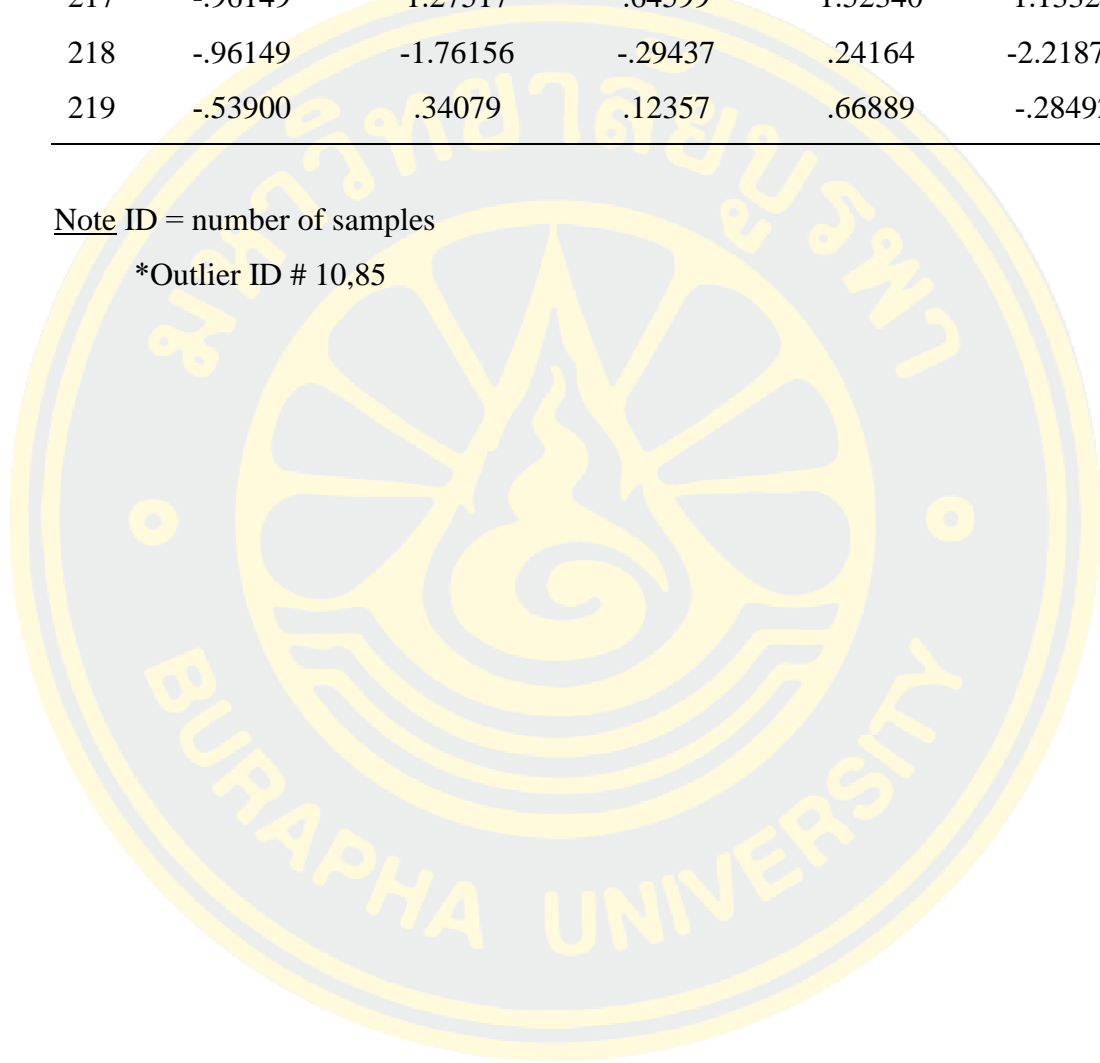


Table Appendix 5-2 Test of multivariate outliers by using mahalanobis distanced

(n = 219)

ID	MAH	ID	MAH	ID	MAH	ID	MAH
1	10.71355	28	5.66492	55	2.68095	82	3.07337
2	2.97769	29	1.27297	56	5.90674	83	4.46663
3	.77016	30	.50022	57	.89251	84	3.23010
4	5.06237	31	2.45873	58	2.49127	85	1.12598
5	4.14348	32	.63147	59	5.97687	86	3.12836
6	4.80637	33	4.90065	60	4.47329	87	3.86261
7	9.36044	34	2.18771	61	3.86761	88	2.08458
8	3.40409	35	6.74351	62	3.71785	89	1.61951
9	2.55438	36	6.26780	63	2.87068	90	3.00061
10	34.41111	37	1.83543	64	27.15377	91	1.66221
11	3.89795	38	1.92106	65	2.30341	92	4.90231
12	3.13417	39	1.03371	66	2.69186	93	.83008
13	2.44526	40	1.99322	67	3.59771	94	1.40145
14	2.48367	41	2.63635	68	.74991	95	5.16629
15	3.03368	42	7.16731	69	3.23370	96	4.95826
16	3.12509	43	2.36672	70	2.33578	97	3.63444
17	3.16744	44	1.24615	71	1.25673	98	4.91235
18	11.90355	45	3.34987	72	.55663	99	1.10905
19	6.45142	46	2.06072	73	1.50022	100	1.67333
20	.49053	47	5.40436	74	.73367	101	1.67547
21	11.97866	48	6.89478	75	5.72428	102	1.83693
22	5.59460	49	13.82620	76	6.03189	103	1.53530
23	4.49186	50	.99584	77	8.44334	104	4.43692
24	5.20272	51	3.05220	78	2.48463	105	6.64449
25	3.17422	52	1.82140	79	8.39077	106	5.76842
26	6.59084	53	4.42713	80	2.99019	107	7.61364
27	1.03976	54	2.18515	81	2.76661	108	3.34064

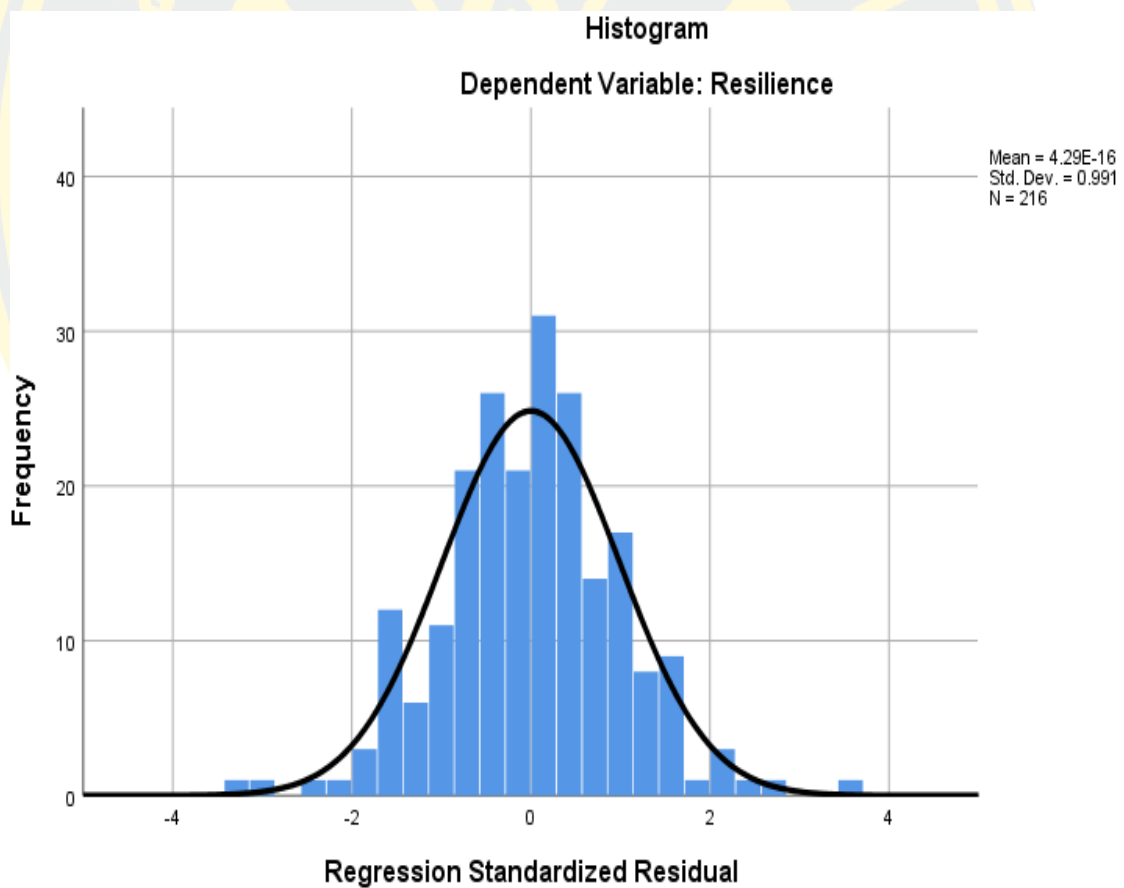
Table Appendix 5-2 (continued)

ID	MAH	ID	MAH	ID	MAH	ID	MAH
109	5.60894	137	5.34409	165	3.28010	193	3.72987
110	2.29121	138	2.34268	166	1.48603	194	6.35719
111	1.80800	139	4.83082	167	2.42623	195	6.88038
112	4.23030	140	2.12782	168	2.72518	196	2.51937
113	3.33189	141	5.49267	169	2.41730	197	2.52696
114	2.42388	142	1.14148	170	4.91443	198	.80918
115	1.27466	143	5.87153	171	1.61535	199	7.56109
116	4.15304	144	1.85514	172	2.45390	200	6.58513
117	7.13325	145	9.04877	173	3.31985	201	1.26989
118	4.99894	146	3.58552	174	3.26257	202	2.50916
119	3.93965	147	4.90747	175	7.44233	203	2.47346
120	14.18953	148	2.82584	176	5.09328	204	3.59560
121	2.43714	149	1.00229	177	1.01405	205	1.10559
122	1.06834	150	1.55218	178	.88290	206	2.76467
123	1.34057	151	3.78068	179	3.66351	207	4.92494
124	11.04589	152	2.85807	180	4.86830	208	.37486
125	1.10640	153	5.33476	181	4.30154	209	4.31140
126	2.89763	154	3.14173	182	5.02672	210	5.20296
127	4.13554	155	1.03593	183	3.36898	211	4.82908
128	4.15430	156	1.85438	184	14.58914	212	2.87633
129	2.34479	157	3.80558	185	5.29863	213	3.89872
130	1.85669	158	3.36844	186	3.68247	214	1.26177
131	5.20755	159	3.74930	187	1.29517	215	2.67075
132	1.21316	160	1.51350	188	4.63589	216	7.17024
133	2.36632	161	2.54495	189	3.82228	217	5.77640
134	4.67740	162	2.65536	190	2.53749	218	5.99890
135	9.78678	163	1.97148	191	3.82322	219	1.16739
136	7.40227	164	2.64189	192	1.22260		

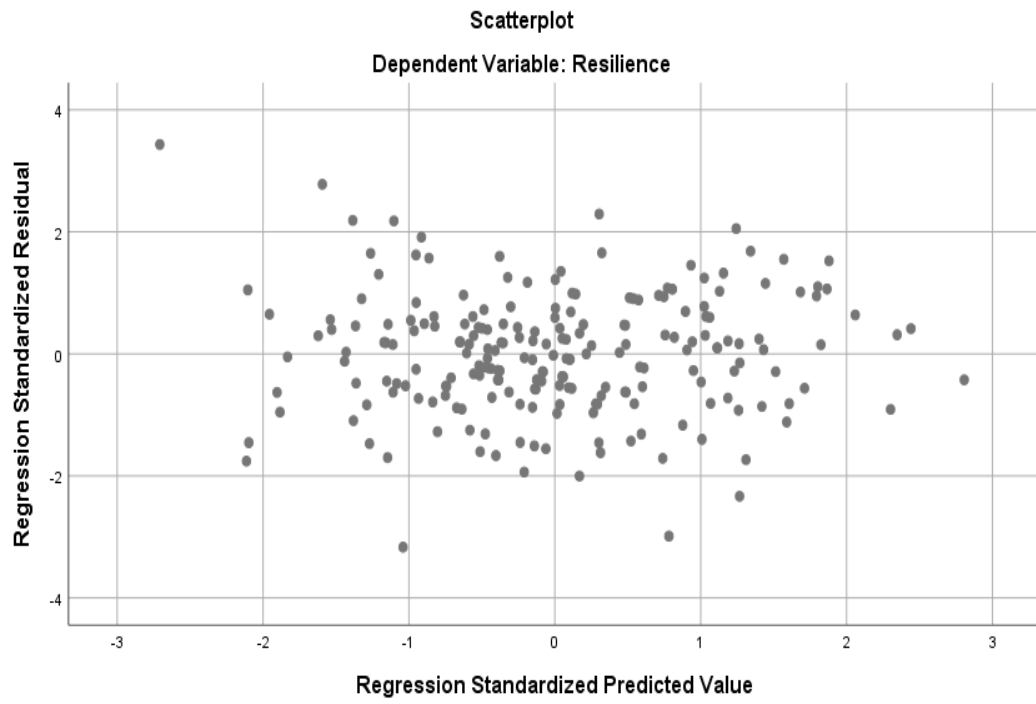
Note Id = number of samples, MAH = p-value of Chi-square, *Outlier ID # 10,64

Table Appendix 5-3 Test of normality of the study variable (n= 216)

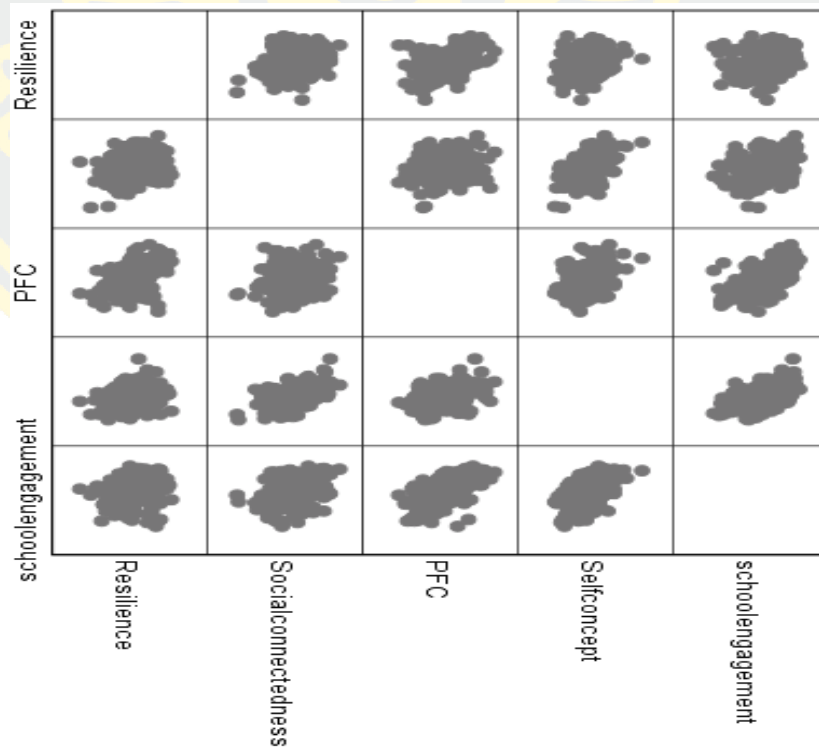
Variable	Skewness			Kurtosis		
	Statistic	Std. Error	Fisher	Statistic	Std. Error	Fisher
Resilience	-.044	.166	-.265	.065	.330	.197
Social connectedness	.174	.166	1.048	-.035	.330	-.106
Problem focus coping	.265	.166	1.596	-.195	.330	-.590
Self-concept	.279	.166	1.681	.484	.330	1.467
School engagement	-.196	.166	-1.181	-.358	.330	-1.084
Multivariate	Kurtosis = 1.047			C.R. of Kurtosis = .920		



Appendix 5-1 The histogram of resilience



Appendix 5-2 Test of homoscedasticity



Appendix 5-3 Test of linearity

Table Appendix 5-4 Correlation matrix of the study variables (n= 216)

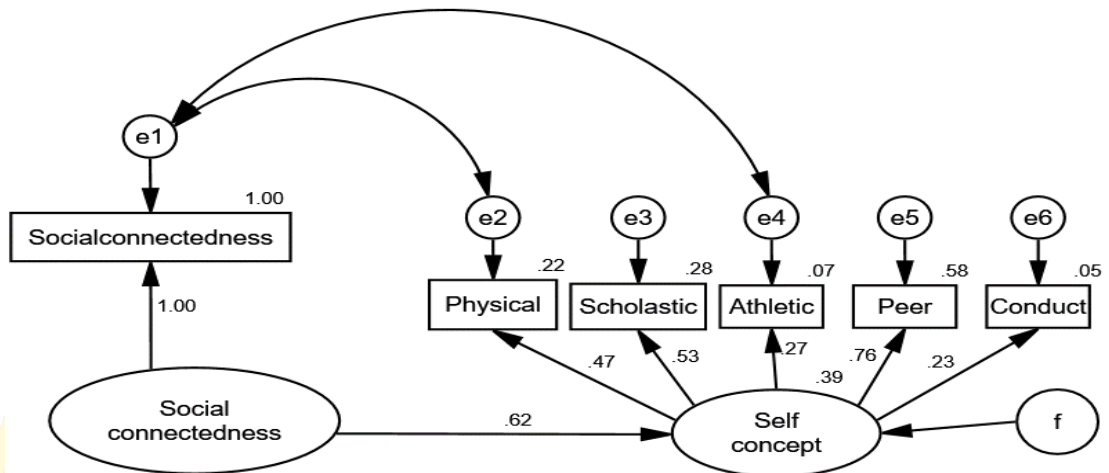
Variable	Collinearity statistics	
	Tolerance	VIF
Social connectedness	.680	1.471
Problem focus coping	.657	1.522
Self-concept	.531	1.882
School engagement	.540	1.853

Table Appendix 5-5 Testing for multicollinearity of the predictor variables (n = 216)

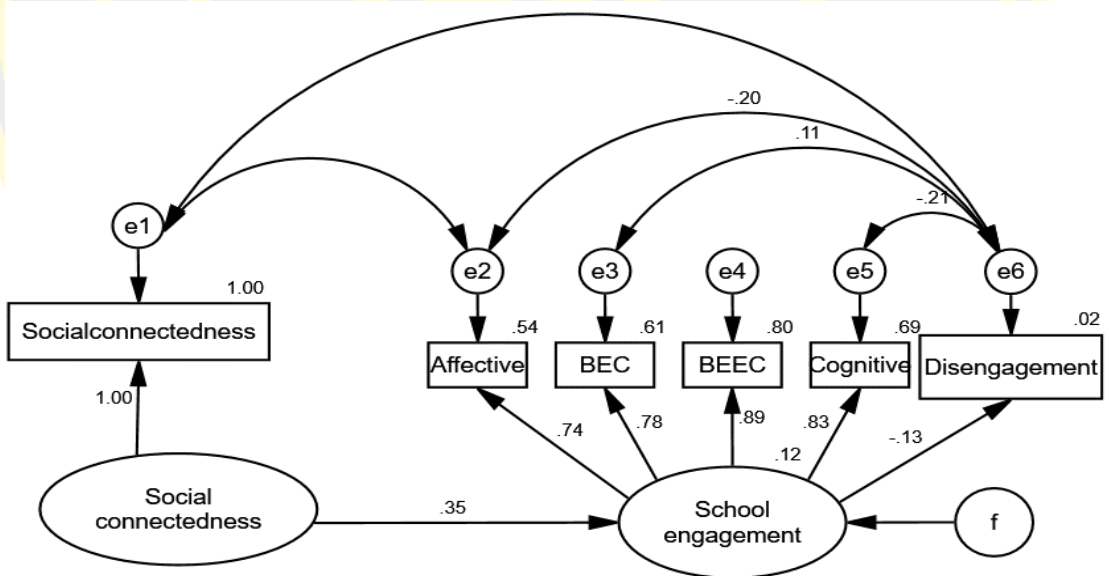
Variable	Resilience	Social connectedness	Problem focus coping	Self- concept	School engagement
Resilience	1.00				
Social connectedness	.243**	1			
Problem focus coping	.480**	.216**	1		
Self-concept	.278**	.561**	.417**	1	
School engagement	.229**	.374**	.574**	.563**	1

** $p < .01$

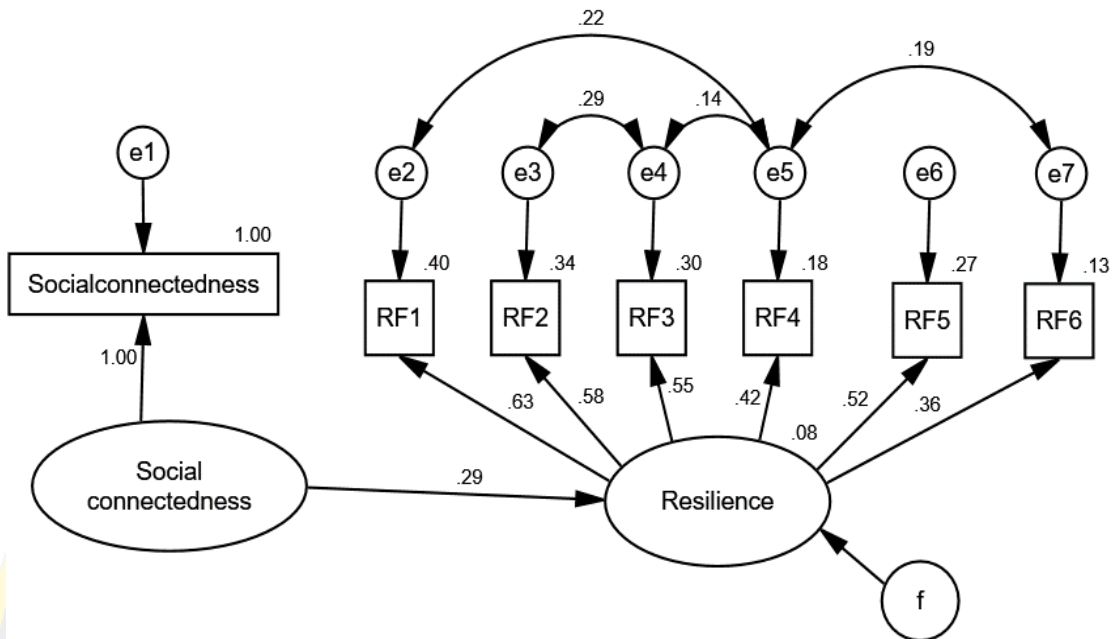
Test effect of measurement model



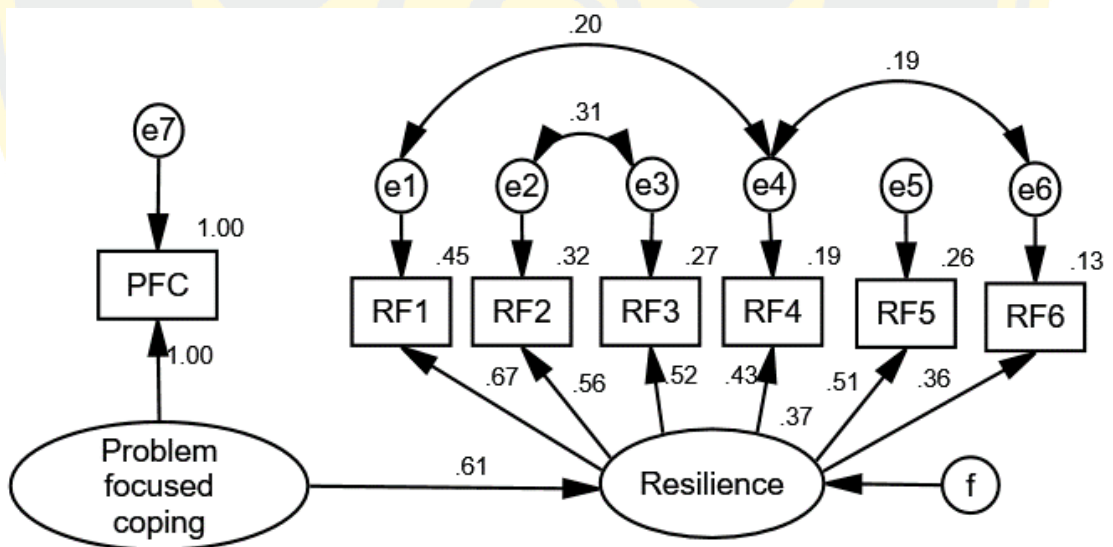
Appendix 5-4 Test effect of social connectedness to self-concept



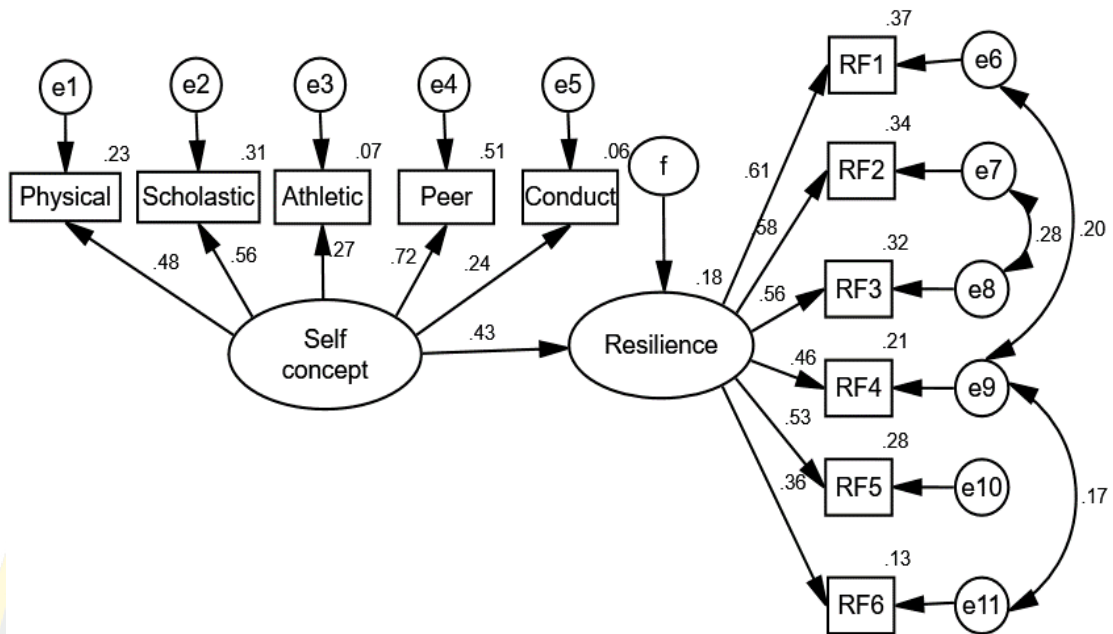
Appendix 5-5 Test effect of social connectedness to school engagement



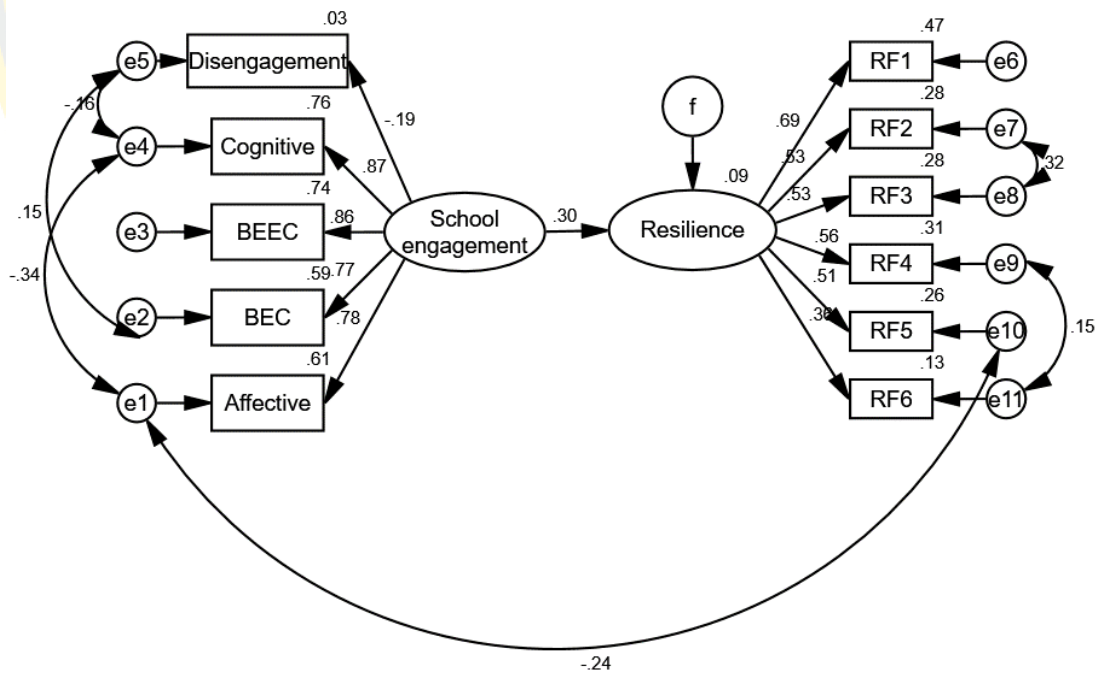
Appendix 5-6 Test effect of social connectedness to resilience



Appendix 5-7 Test effect of problem-focused coping to resilience



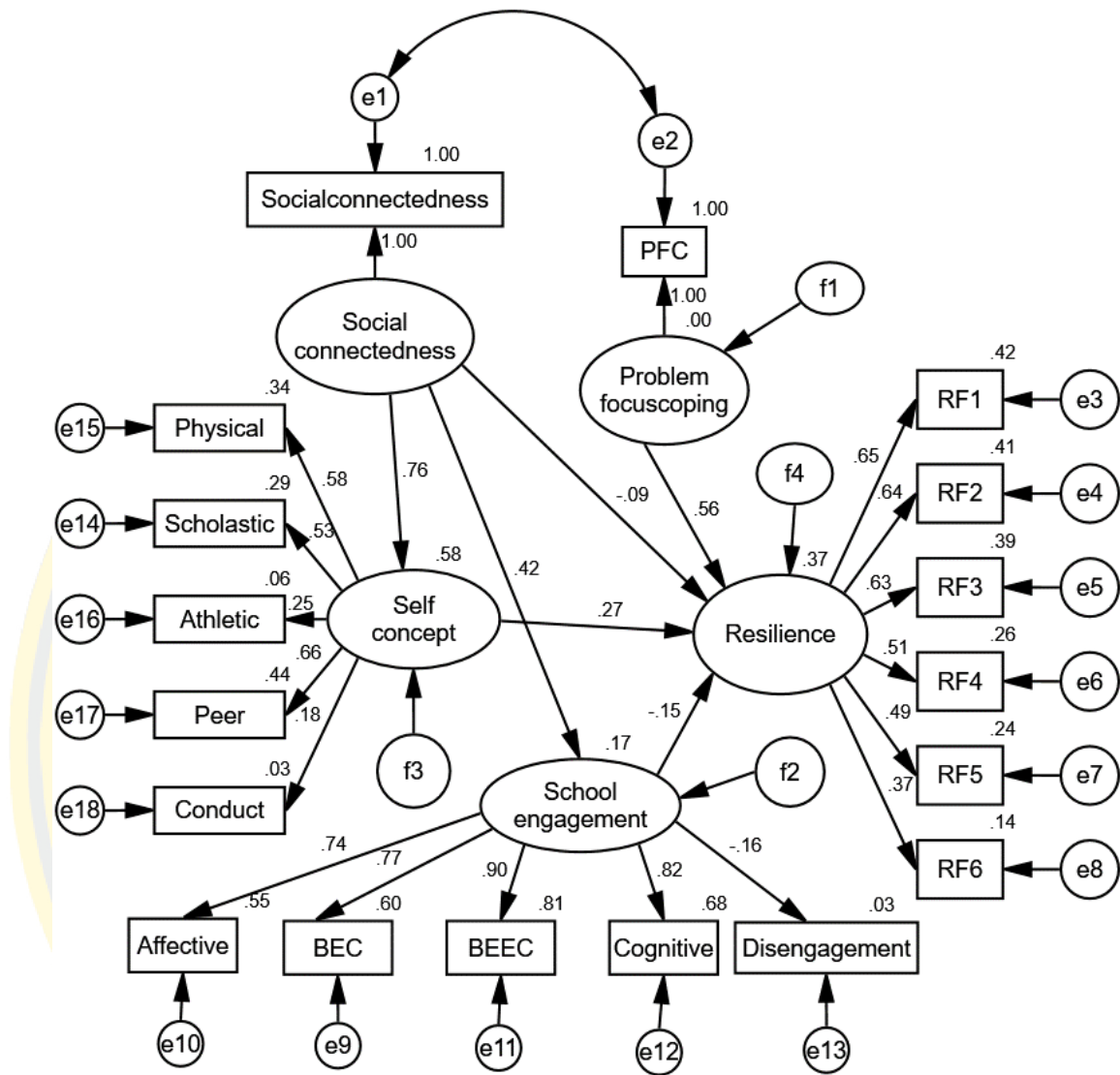
Appendix 5-8 Test effect of self-concept to resilience



Appendix 5-9 Test effect of school engagement to resilience

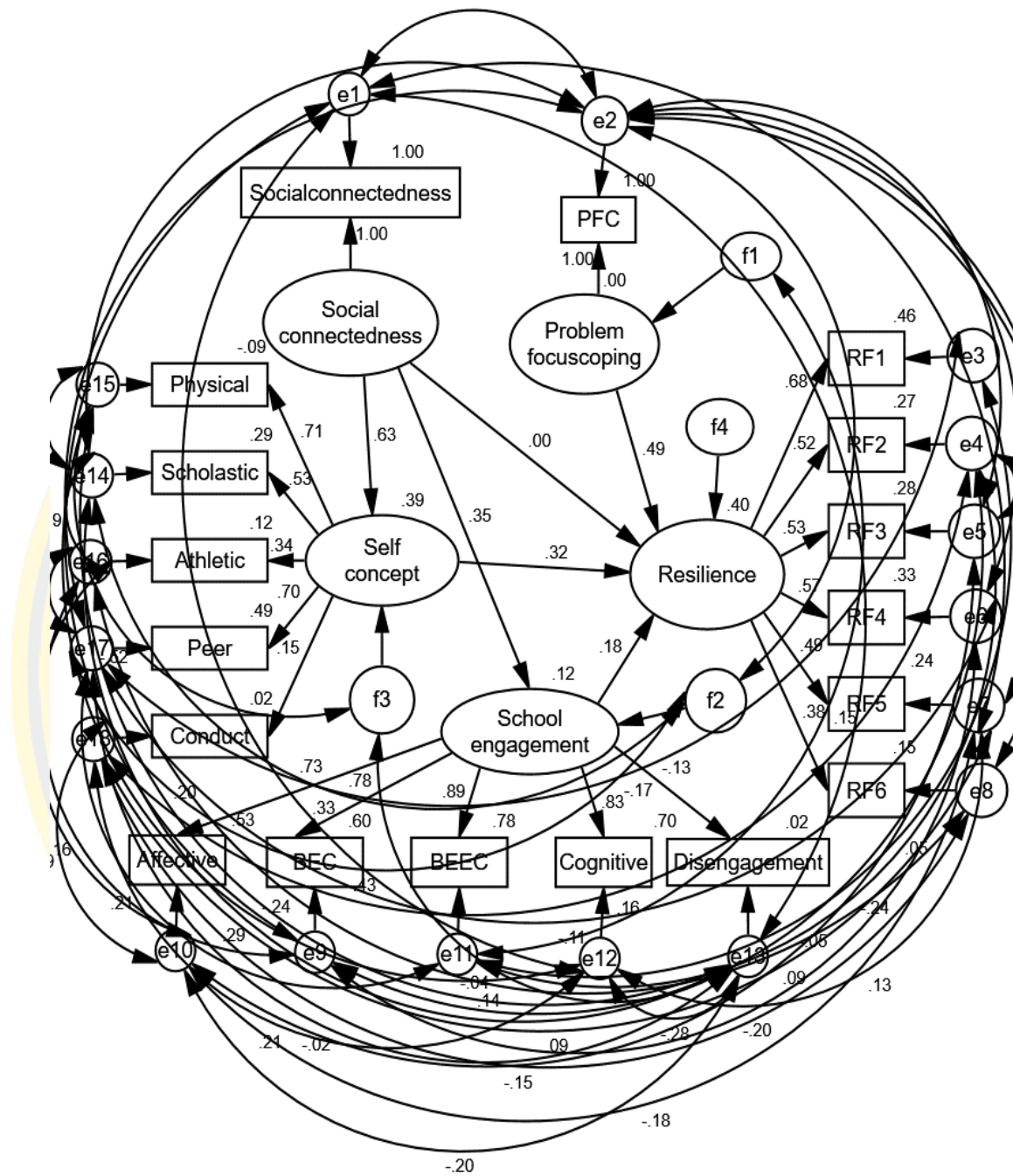
Table Appendix 5-6 Test effect of measurement model

Effect	Standardized estimate	SE	t	R ²	Goodness of fit index
Social connectedness → Self-concept	.62	.016	7.976	.389	Relative chi-square = 1.547, GFI= .983, AGFI = .949, RMSEA = .05
Social connectedness → School engagement	.35	.020	4.662	.120	Relative chi-square = 2.304, GFI=.986, AGFI =.928, RMSEA = .078
Social connectedness → Resilience	.29	.012	3.322	.084	Relative chi-square = .978, GFI=.987, AGFI =.964, RMSEA = .000
Problem-focused coping → Resilience	.61	.018	7.017	.370	Relative chi-square = .968, GFI= .986, AGFI = .965, RMSEA =.000
Self-concept → Resilience	.43	.086	3.513	.182	Relative chi-square = 1.291, GFI = .958, AGFI = .930, RMSEA = .037
School engagement → Resilience	.30	.025	3.492	.093	Relative chi-square = 1.220, GFI= .962, AGFI = .933, RMSEA =.032



Chi-Squre = 404.741, df = 130, p-value = .000, Relative Chi-Square = 3.113,
 GFI = .829, AGFI = .775, RMSEA = .099

Appendix 5-10 The hypothesized causal model of factors affecting resilience among early adolescents living in homes for children



Chi-Squre = 98.165, df = 86, p-value = .174, Relative Chi-Square = 1.141,
 GFI = .954, AGFI = .909, RMSEA = .026

Appendix 5-11 The modified model of factors affecting resilience among early adolescents living in homes for children

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