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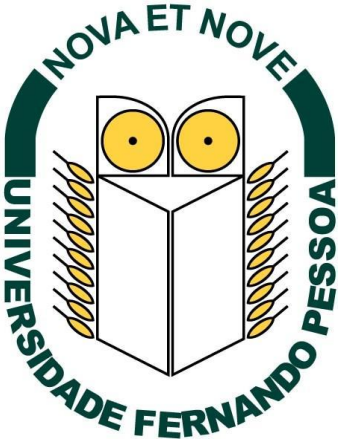

Gender Differences in Coping Mechanisms of Preschool Children and Relation to Cognitive and Social Emotional Level

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Resumo

Os mecanismos de coping em crianças são um construto que tem sido definido e estudado de variadas formas por diferentes autores. Faz parte do conceito de autorregulação das emoções e envolve os conceitos psicológicos relacionados à competência social, habilidades e autorregulação do comportamento. A investigação não é conclusiva, existindo diversas perspetivas em relação aos mecanismos de coping tendo em conta o género e qual a relação do nível socioeconómico da família. De igual forma, a investigação aponta em diversos sentidos em relação aos mecanismos de coping e às habilidades cognitivas e sociais das crianças. A presente investigação pretende compreender se existem diferenças na forma como as crianças de quatro anos lidam com diferentes situações tendo em conta o género e o nível socioeconómico da família, tendo em consideração as suas habilidades cognitivas e sociais e o nível de escolaridade dos pais.

Os nossos participantes são crianças de quatro anos de idade que frequentam uma creche em Miami no estado da Florida nos Estados Unidos da América. O material usado foi o Ages and Stages Questionnaire, o Ages and Stages Social emotional Questionnaire, o Voluntary Prekindergaraten Assessment, as Coping Cards, o Socio-Demographic Questionnaire e Emotions with Emojis Lesson.

Quanto ao procedimento foram entregues os consentimentos informados aos pais e explicado os procedimentos. Logo a seguir a devolução dos consentimentos informados, foram aplicadas as provas e questionários as crianças e analisado os resultados.

Os resultados deste estudo não demonstram diferenças de género estatisticamente significativas nos mecanismos de coping que as crianças usam. Isto pode ser devido a ferramenta utilizada ou a idade da amostra. Investigações futuras poderão focar-se na construção de uma ferramenta de avaliação adaptada para a população específica deste projeto. Existem diferenças

significativas positivas entre os resultados do VPK Oral Language assessment e o coping focado nas emoções e uma correlação negativa entre o VPK Oral Language assessment e o coping focado nos problemas. A par, o coping como construto, deverá ser operacionalizado para incluir os conceitos de emoção e coping focado no problema, assim como estratégias de abordagem e evitamento.

Palavras-chave: coping focado na emoção, coping focado no problema, cartões de coping, regulação emocional, regulação do comportamento.

Abstract

Coping mechanisms in children is a construct that has been defined and studied several ways by different authors. It is part of the concept of self-regulation of emotions and it involves the complex psychological concepts related to social competence, skills and behavior management. There are mixed findings regarding the mechanisms children use in coping with regards to gender and with regards to the family's social-economic status. There are also mixed findings regarding coping mechanisms and children's cognitive and social abilities. Most studies only include children in middle childhood or the ages after preschool and before adolescence. The few studies that have included preschool age children have done so for the 5 and six year olds but minimal attention has been paid to four year olds and how they cope. The studies have also been done using a variety of tools, but no one has had consistent results regarding problem or emotion focused coping.

This research project tried to answer if there are differences in the way four year old children cope taking into consideration their gender, cognitive and social abilities and their parents' level of schooling. It used the Age and Stages questionnaire, the Ages and Stages Social

Emotional questionnaire, the Voluntary Pre-Kindergarten Assessment tool, a socio-demographic questionnaire and the Coping Cards tool. Results of this project have yielded no statistically significant differences in coping mechanisms children use. This could be due to the fact that the instrument to assess coping strategy was created for a culturally, linguistically and socio-economic population different than the one used in this project. Future research needs to be focused in creating an assessment tool tailored for this project's specific population. There is a statistically significant positive correlation between the VPK Oral Language scores and children's emotion focused coping. There is also a statistically significant negative correlation between the VPK Oral Language scores and children's problem focused coping. Furthermore, the construct of coping needs to be operationalized to include the concepts of emotion and problem focused coping, and approach and avoidance strategies.

Keywords: Emotion focused coping, problem focused coping, coping cards, emotion regulation, behavior management.

Introduction

Coping is an important process of the self-regulation of emotion and is part of a broader set of social emotional skills which are important for adaptive human development. Coping involves the ongoing efforts to adapt cognitively and behaviorally and the modification of the self towards the environment, which is what Lazarus and Folkman in 1984 defined as problem focused coping or modifying how one feels in response to a stressful event, which is emotion focused coping (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001) and which still holds true today. Band and Weisz (1990) speak of a two-process model in which there is primary control and secondary control, where in primary control it refers to changing, altering or controlling the environment and in secondary control coping it refers to changing how one feels about the situation. These skills, when learned early, have the positive side effect of preventing mental health problems later in life, they can lead to fewer substance abuse problems, positively impact employment and social and emotional relationships.

Moreover, research has shown that there are gender differences in coping styles in children in that girls employ more emotion focused strategies than boys (Boo & Wicherts, 2007). There is also an interaction between age and gender in that girls showed a decrease in emotion regulation strategies and problem focused coping compared to boys. This is important for this thesis since it will be comparing gender differences in coping mechanisms in children of the same age. Furthermore, research has also reported gender differences in the use of coping strategies among children and adolescents but with mixed findings, because coping is not a construct that has been very well defined and analyzed with regards to gender and age differences. This is important to note since this thesis project will be using only one age group. Eschenbeck, Kohlmann and Lohaus, (2007) suggest that coping has been situated between two

conceptual frameworks that overlap which are problem versus emotion focused coping and approach versus avoidance coping. They also claim that developmental, environmental and gender socialization characteristics contribute strongly to the different coping mechanisms employed by males and females, which is why this dissertation project will take into consideration the demographics variable when analyzing the results from the different assessments used.

"Parents and Children's Coping: Building Resilience and Wellbeing in the Early Years", by Frydenberg, Deans and Liang, (2017), proved very useful for this project since this thesis will be using the same age group as was used in that study, which was composed of preschool age children and from a similar culturally and linguistically diverse population as well. It used the Early Years Coping Cards with parents in that study reporting an overall satisfaction with the program which tells us this is a valuable treatment and preventive tool and resource. This thesis project will be using a version of Frydenberg's Coping Cards as an assessment tool to determine preschool age children's preferred coping mechanism.

This dissertation project will try to answer the question if there are gender differences in coping styles in four year olds. Its main objective is to find if boys and girls differ in their use of emotion focused coping and problem focused coping when faced with different types of situations which have be distinguished from controllable or uncontrollable situations. We will also try to find what is the relation of coping mechanism and parents' level of schooling and what is the relation between children's preferred coping mechanisms and children's academic and social emotional performance. We will be doing this by assessing children with the VPK Assessment tool to determine cognitive ability, the Ages and Stages questionnaires to determine social emotional and developmental level, and the Coping Cards tool to determine coping style.

In chapter one we will briefly define coping and try to operationalize this concept and why it is important that there is clear definition as to what coping is and how it differs between age and gender. This chapter looks at the developmental aspect of coping and how it relates to internalizing and externalizing disorders. It will cover the similarities on emotion regulation and coping and how it also relates to temperament. Also, we will describe the different coping strategies and the differences within these between age and gender.

Chapter 2 will describe the steps taken to obtain the information regarding coping and the relation between this and the different objectives proposed in this thesis. We will explain the tests and measurements used and how the results were interpreted. We will also briefly describe the rationale behind these tools and how it aided in the development of the results and findings.

Chapter 1: Coping

1.Introduction

In this chapter we will briefly define coping and try to operationalize this concept and why it is important that there is clear definition as to what coping is and how it differs between age and gender. This chapter looks at the developmental aspect of coping and how it relates to internalizing and externalizing disorders. It will cover the similarities on emotion regulation and coping and how it also relates to temperament. Also, we will describe the different coping strategies and the differences within these between age and gender.

1.2 Coping

1.2.1 Defining the Construct

Coping is an important concept to study because it can be used to help create intervention and to facilitate adaptation among children who are at risk for developing a psychological

disorder. Despite the importance of this issue there is little research done and there are some explanations as to why there isn't a lot of research in childhood coping. Compas (1998) believes there are four fundamental questions that are unanswered that reflect the status of the research in this area. First, research hasn't agreed on how to define and concept of coping in terms of dimensions. Some authors define coping in terms of problem focused coping strategies which refers to changing the situation the causes the stress and emotion focused coping, which refers to changing how one sees the situation. This has also been defined as primary or secondary coping strategies, respectively (Band & Weisz, 1990). There are also authors that talk about engagement and disengagement strategies which resemble the approach and avoidance constructs (Tobin, Holroyd, Reynolds, & Wigal, 1989). Compas, Jaser, Dunbar, Watson, Bettis, Gruhn and Williams, (2014) hold that we have to take into consideration that coping is how we respond to stress and that has many temperamental and developmental aspects as well.

We also have to take into account what influences coping in terms of how it emerges in life and how it develops along the years. What, developmentally, needs to be taken into account and further studied and what mechanisms are responsible for acquiring new ways of coping as well as parents' influence and socialization process (Compass, et. al, 2014). It is fruitful to look at the efficacy of the coping responses along the lifespan to give us clues as to what is working and what is not. If there are changes in the way the individual copes from childhood to adolescence then this tells us there is a changing relationship between the individual and his or her environment (Compas, 2014). It does not matter how effective or ineffective the individual strategies are if we do not have information on the context in which it took place. If the individual believes the situation is controllable or not will shift the way in which he or she responds. This will be important when we are designing the coping interventions since we will

know when to apply cognitive behavioral strategies and then emotion management strategies. A well-defined construct also helps identify the timing of the interventions since we will know where the child is at developmentally and what will work best. Knowing what situations are controllable or uncontrollable is a concept that only older children can grasp and differences in temperament will also influence what coping responses certain individuals will want to use (Bettis, Forehand, McKee, Dunbar, Watson & Compas, 2016).

In a study by Compas, Malcarne and Fondacaro, (1988) of academic and interpersonal stressors, children were found to use problem and emotion focused strategies. They found that the emotion focused strategies increased with age, but the problem focused strategies stay relatively stable along the years. In response to academic events, girls used more emotion focused strategies but there were no significant gender differences found. But what is interesting is that they found consistency in their coping across situations than what is found in adults. They found a correlation between social stressors and emotional/behavioral problems and coping (Compas, et al, 1988). They also found that children with more adjustment problems used more emotion focused strategies than problem focused strategies. The group studied children with more maladaptive emotional strategies such as hitting or crying which might be due to the fact that problem focused strategies are developed with age.

What this tells us is that there is a strong need for longitudinal studies on the development and the developmental aspect of coping. The correlations between internalizing and externalizing issues is very important for the development of interventions (Bettis, et al, 2016). The study needs to be carefully considered because they found that the subjects generated more problems focused strategies when they perceived the stressor to be out of their control and less strategies when they perceived the stressor under their control. One explanation is that these

were self-reports in which they needed to self-identify one recent interpersonal stressful event and one academic. These are always going to vary by person and character. They themselves had to generate a list of how to handle this stressful event so the number of alternatives depended on them and their level of creativity. This is too subjective of a parameter for this study, but the reasons are well justified since there are no surveys for coping for this age group when the study was done.

Coping is an important process of the self-regulation of emotion and coping research in childhood is very important because the ways in which children cope with stress will determine the likelihood for developing psychopathologies later in life (Compas, Connor-Smith, Saltzman, Thomsen & Wadsworth, 2001). Compas (2014) noted that the way we define coping will determine how we study it. And this is important because we cannot compare studies, document fundamental differences and analyze its effects without a consensus on a definition for coping (Raviv & Wadsworth, 2010). The first step to defining coping is acknowledging that coping is different at different developmental stages in life. And, we need to separate coping from other ways in which individuals handle stress. Coping involves the ongoing efforts to adapt cognitively and behaviorally and the modification of the self towards the environment, which is problem focused coping or modifying how one feels in response to a stressful event, which is emotion focused coping (Compas, et al, 2001). This can also be expressed in terms of stress management; one is either managing the situation that is causing the stress or managing how one feels about the situation causing the stress. Band and Weisz (1990) speak of a two-process model in which there is primary control and secondary control. Primary control refers to changing, altering or controlling the environment and secondary control coping refers to changing how one feels about the situation.

Compas et al. (2001) define coping as a set of processes that the individual undertakes to regulate emotion, cognitions, behavior, physiology and the environment as a response to stress. It takes into account the developmental level of the person, as well as their emotional, cognitive and social development. It is a much broader definition that distinguishes between voluntary versus involuntary and engagement versus disengagement responses (Compas, et al, 2001). When the authors talk about engagement and disengagement, they are referring to the famous fight (engagement) or flight (disengagement) responses. They further distinguish that when the response is voluntary, or coping response, that involves engagement, it needs to be distinguished by its goal of trying to achieve primary or secondary control. Trying to achieve primary or secondary control is central to models of motivation of coping and self-regulation (Bettis, et al., 2016).

There is a need for a developmental perspective to coping in children because adult models are too broad and may not be valid for young children. Yeo, Frydenberg, Northam and Deans (2014) researched how to empirically obtain, using a principal component analysis, a three-dimension operationalization of the construct of coping in children that can be confidently used to assess which coping strategy children use in different situations. Their study on coping with stress among preschool children and its associations with anxiety level and the controllability of situations aimed to identify coping dimensions in four and five-year-old children using factor analysis of the responses to the Children's Coping Scale. It also evaluated the relationship between children's use of each dimension of coping with their anxiety level and with their perceived controllability of the stressful situation. The study indicated that anxiety is an important predictor of the types of coping preschoolers engage in. Anxious children tend to engage in avoidant, withdrawal and emotion focused behaviors in stressful situations (Raviv &

Wadsworth, 2010). But, contrary to previous studies and this study's hypothesis, children used more problem focused strategies on events they deemed uncontrollable and more emotion focused strategies on events they deemed controllable (Yeo, et al,. 2014).

1.2.2 Coping, temperament, reactivity and regulation

The neural systems that make up temperament such as the appetitive, the defensive and attentional control, can be viewed as coping mechanisms. Experiments of nature are used to explain how the connection between personality relevant behaviors, that are associated with each of these systems, and temperament are used as primitive coping mechanisms by understanding how these systems organize behavior, thoughts and emotions (Derryberry, Reed & Pilkenton-Taylor, 2003). Temperament can also explain psychopathology by explaining how underreactive or overreactive systems create vulnerability to depression or anxiety. If there is a problem in the attentional control as well, then coping will be affected because that child will have a harder time shifting his attention from threat to safety in the case of overreactive defensive systems. A problem with attentional control will also shape the child's cognitive representations, which are useful when deciding which coping mechanism to employ, since the defensive system will pay more attention to threat or safety stimulus. Using the correlations of motivation and emotion with underlying neural systems we can explain individual differences in personality (Derryberry, Reed & Pilkenton-Taylor, 2003). It provides a functional view of personality and offers a broader perspective of coping since the paper explains that not only our defensive system is activated when we are in stressful situations but our appetitive as well.

The concepts of reactivity and self-regulation play an important role in this research since highly reactive people have a lower threshold of response, recover slower and are more reactive the more exposed to the stressor. High reactivity is associated with inhibited temperament,

which is related to coping (Compas, et al., 2001). It is related to coping because it goes hand in hand with a person's automatic response to stress. Highly inhibited people are very sensitive to stressful situations, which may be related to the use of avoidance and withdrawal as a coping response (Compas, et al., 2001).

Sala, Pons and Molina (2014) studied coping under the term emotion regulation strategies in their study. The aim of this study was to explore a set of different emotion regulation strategies such as cognitive reappraisal, behavioral and social support, that emerge over the preschool years in relation to both age and gender. It also aimed to explore the influence of emotion regulation development of other aspects of cognitive development such as verbal skills, non-verbal intelligence, and the ability to understand emotions since little research has systematically investigated these different strategies in combination with one another, while also connecting their development to other relevant variables. This was done by analyzing children's narratives using a tool called Emotion Regulation Story Stems.

> Theorists have argued that narrating and storytelling enable children to access their scripts, defined as mental representations organizing expectations about behaviors and roles in real life experiences. Previous findings identify a relationship between the child's understanding-and use in the narratives- of a variety of emotion regulation strategies on the one hand and the ability to manage emotions in real life contexts on the other (Sala, Pons & Molina, 2014, p 5.).

The other aspects of cognitive development were tested using Test of Emotion Comprehension (TEC), the Peabody Picture Vocabulary Test-Revised (PPVT) to test vocabulary skills and the Leiter International Performance Scale-Revised to test non-verbal Intelligence.

Other studies speak of coping as a subset of a broader self-regulatory process because it involves regulation emotion, cognition, behavior, physiology and the environment and for others seeking social support, involves the regulation of attention in infant and toddler studies. (Eisenberg, et al., 2009). For this reason, these authors suggest studying regulation and coping and their development at multiple levels of expression and origin simultaneously (Eisenberg, et al., 2009). However, there are conceptual issues that need to be clarified to better understand these two concepts. One such way is tying coping and regulation to effortful control and reactive processes.

Effortful control is temperamentally based. It is our ability to shift and focus attention as needed; to activate or inhibit behavior as needed. It Involves executive function skills such as planning, integrating information, modulating behavior and emotion. In contrast, reactive processes are a major dimension of temperament, part of a broader category of reactivity. It belongs to the involuntary motivational approach and avoidance systems of response reactivity, which means it is related to behavioral activation or inhibition systems. Eisenberg, et al., (2009) believe effortful control may be a stronger predictor of maladjustment and they are useful for understanding coping dimensions better because, taking Skinner and Edge's (2003) opinion, coping categories or any definition or conceptualization of coping will contain aspects of effortful control such as problem solving, emotion and behavior regulation, accommodation or cognitive restructuring and aspects of reactive processes such as social withdrawal or cognitive interference and cognitive exhaustion.

Other coping behavior such as emotion expression may be involuntary or voluntarily regulated. For example, some behaviors thought of as coping such as aggression and rumination are actually a lack of regulation. Eisenberg, et al., (2009) state that if it achieves a goal its

regulation, if not, its reactivity reflecting impulsivity. Eisenberg, et al., (2009) goes further and says effortful control processes can be turned on or off so it can be thought of as an adaptation mechanism. This is where the body's regulatory systems come into play (Duckworth & Schoon, 2010). There are physiological mechanisms that underlie reactivity and regulation such as vagal tone which comes from the vagus nerve of the parasympathetic nervous system and have been seen to impact people's capacity at regulating emotion.

The sympathetic nervous system (SNS) relates to reactivity so it is relevant to the intensity of the reaction, it mobilizes energy in response to external demands such as in the fight or flight reaction. The parasympathetic nervous system (PNS) inhibits SNS activity when the body sees there is no need for a fight or flight response. The vagus nerve is the primary PSNS influence on heart rate. This is measured by the respiratory sinus arrythmia (RSA) which is a variation in heart rate when we breathe. Polyvagal theory says vagal tone is a "brake" that slows metabolic activity if nothing else does. Therefore, resting vagal tone can be used to measure temperamental reactivity (Santucci, Silk, Shaw, Gentzler, Fox & Kovac, 2015). When faced with stressful situations this brake can be removed to prepare the body for action by letting the SNS kick in. Resting vagal tone has been related to temperamental reactivity. Additionally, high vagal tone appears to guide the ability to regulate attention and low vagal tone may indicate a predisposition towards negative or threatening information. "Although resting vagal tone has been related to successful emotion regulation and coping, vagal suppression (decrease in vagal tone when faced with stress) may be a better indicator of regulation than measures of resting vagal tone" (Eisenberg, et al., 2009, p 3). Since vagal tone is part of the body's self-regulatory process, and several other studies have found a link between vagal tone and coping, it gives us evidence to the fact that coping, and regulation, are tied and influence each other (Cracco, 2015).

When thinking about regulation we also have to take into account socializers. Socializers are also thought to influence the development of coping and big part of socializers are parenting practices (Bettis, et. al, 2016). To understand this, we would have to go back to the definitions of effortful control and reactive processes. Effortful control relates to temperament and voluntarily inhibiting behaviors that might seem inappropriate for example (Santucci, et al., 2015). Children learn to express certain behaviors by imitating the behaviors of their parents and caretakers. Therefore, there is a weaker link between reactive processes and social interactions since it is mostly involuntary. Eisenberg, et al. (2009) also note that parenting style and the association between effortful control and reactive processes weaken over time as children develop. This is likely due to the influence of peers on children's behaviors. Adolescents are more likely to react to external conditions based on what is socially and situationally appropriate at the time (Hoglund and Leadbeater, 2004).

There is no linear relationship between parenting and coping much like there is no linear relationship between coping and any other factor when it comes to children. Much like other aspects of children's coping, there needs to be more research into the differences in effortful control seen in different children. Effortful control is part of a larger self-regulatory capacity in children and this influences parents' behavior since birth. So, there is a bi-directionality needed to be understood when observing children in their home environment before coming to any conclusions on the influence of socializers (Khamis, 2015). Furthermore, social life within the family unit provides a safe environment for children to experience negative emotions and thus, start managing and learning to cope with different situations, which serves as a fertile ground for research in the influence of socialization practices and coping mechanisms in children. It also

serves as a fertile ground for children to learn to manage and cope with emotions (Seeley, Kosty, Farmer, and Lewinsohn, 2011).

Furthermore, coming up with and verbalizing effective coping strategies requires that children have good verbal skills. That is why Cole, Dennis, Smith-Simon, and Cohen (2009) in their study on is using a recognition task instead of a questionnaire format so that it is easier for the child to respond much like this thesis will be doing by using the Coping Cards Tool. Nevertheless, emotion regulation strategies need sufficient linguistic kills to be carried out, so the authors of this study used the mean length of utterance (MLU) to determine if the children in the sample had sufficient verbal skills for the task. It is important to underscore that although this study talks about emotion regulation we can see this is another way of conceptualizing coping "the ability to access a number of strategies that may modify emotion should enhance a child's ability to self-regulate in times of distress" (Cole, et al, 2008, p.6).

Parents play an important role in the way children learn to cope and there are several variables that affect how likely children will handle stressful situations in an adaptive manner. Parents need to be empathetic and tolerable of children's emotions but also use the opportunity to teach them how to handle it better somewhat similar to what a coach would do (Cole, et al, 2008). If a parent is supportive but then goes ahead and takes care of the station for the child and not let him or her handle it then the child will not have the tools to self-regulate on his own (Seely, et al, 2011). On the other hand, if the parent pushes a child to cope with situations but does not offer support it will create a child who will not be sure which emotions are acceptable and may not always be able to know which strategies are adequate for specific situations. A parent that is both supportive and gives him or her the tools to manage stressful situations as they arise will create a child who is socially and emotionally competent (Santucci, 2015). "The

capacity to recognize a variety of strategies for regulating different emotions may aid a child's effort to cope" (Cole, et al., 2008, p.4).

Although emotion understanding is associated with emotion competence in early childhood there is lack of research in how the development of understanding on how emotions can be regulated and whether such understanding has any implications on their actual self-regulation (Khmis, 2015). That is why this study took three and four year old children's understanding of their ability to stop intense emotions is assessed using puppets that prompted children to spontaneously verbalize strategies in response to the puppets pleas for help and to choose from pairs of appropriate and adaptive strategies which would be the best one (Bettis, 2016). More specifically, Cole et al. (2008) believed that explicit understanding of emotion regulation strategies develops between the child's third birthday and the end of the fourth year so they predict that four year olds will be more likely than 3 year olds to generate and recognize effective and appropriate strategies. It was predicted, in this study, that understanding of emotion regulation strategies should be associated with an important self-regulation skill, the ability to persist despite frustration. Cole, et al. (2008) expected that children who understand strategies for emotion regulation should be able to work on a task that was difficult to solve, without becoming disruptive or seeking support which is something expected by a four year old. In an emotionally challenging situation, understanding appropriate, effective, regulatory strategies that enhances behavioral self-regulation, Cole, et al., (2008) expected that maternal emotional supportiveness, without structuring of self-regulation, might predict recognition of effective, appropriate strategies, and maternal structuring would predict the child's verbal generation of effective appropriate strategies. This denotes that coping is malleable (Wadsworth,

2015) and that development is affected by characteristics of the child's family (Hoglund & Leadbeater, 2004).

Furthermore, emotion regulation has considerable overlap with stress coping, but it is important to define both to better understand this idea (Cracco, Durme & Braet, 2015). Emotion regulation has to do with all the internal processes that have to happen for induvial to manage emotional changes to meet external demands. For example, not laughing at a funeral or at a job interview. Stress coping comes into play when the person judges the external and internal demands as too draining, so the individual is constantly changing cognitive and behavioral responses to better manage the situation (Wang & Saudino, 2011). Wang and Saudino (2011) also note that coping is different to emotion regulation because it is dependent on the context (a stressful situation) and emotion regulation is broader in that includes other non-stressful situations and processes. Therefore, these authors believe the common neural structures, genetics and environmental factors play an important role in both concepts.

This is important for this thesis since emotion regulation has been linked to social competence and peer status which is important in avoiding psychosocial stress. The less stress the child feels the better the child will be academically. And, to lay the foundation for their theory they base their research on the three-factor coping model introduced by Billings and Moos which add Appraisal focused coping to the widely researched Problem and Emotion focused coping. "Appraisal-focused coping emphasizes cognitive assessment and logical analysis" (Wang & Saudino, 2011, p.7). It involves changing the initial emotional definition of the situation and choosing a better adaptive response after this appraisal.

There are also differences in emotional regulation which are Antecedent-focused and Response-focused (Wang & Saudino, 2011). Antecedent-focused emotion regulation is when

the person stops and thinks before reacting. The person has the emotion but reappraises the situation and considers the consequences of reacting in non-adaptive ways (Andres, de Minzi, Castaneiras, Canet-Juric & Roriguez Carvajal, 2016).

Response-focused emotion regulation is when the person controls the anger he or she is already experiencing, for example, by not expressing it overtly (Wang & Saudino, 2011). This is important because older adults experience fewer negative emotions than younger adults since they use Antecedent-focused emotion regulation while the younger adults use response-focused strategies. And, this might be due to the prefrontal cortex's cognitive control and executive functioning jobs that have a developmental dependent implication. Furthermore, environment also plays an important role since environmental stress shapes the child's cognitive maturity as seen in children in high risk environments. But, further research in this are needs to be performed (Andres, 2016).

1.2.3 Coping and Stress

Competence and resilience are concepts that are related to coping because they deal with successful or unsuccessful adaptation to stress. Competence refers to the array of abilities and resources each individual has, and resilience is the outcome of successful coping (Wadsworth, 2015). However, not all coping efforts are the result of competence and not all efforts end in resilient behavior (Compas, et al, 2001). There are also the two positions of viewing coping as volitional or involuntary response to stress. Compas, et al (2001) distinguishes between them because people experience these effects differently. Some people might react involuntarily by crying and others might be able to control this reaction and channel it into writing, for example. The effects on a person's physiology will be quite different. Furthermore, these processes will

react different to psychological interventions (Sposito, Rodrigues, Sparapani, Pfeifer, de Lima & Nascimento, 2015).

The purpose of distinguishing and mentioning voluntary and involuntary responses to stress was to point out that the ways we choose to cope, which is voluntary, affect involuntary responses to stress. An example of this is when we cognitively and behaviorally control intrusive obsessive-compulsive thoughts, they can have the effect of increasing the thoughts we are trying to suppress (Compas, et al, 2001). There is very little research done with regards to this with children, which is why it is important to have a well-defined construct and theoretical model of what coping is to avoid unnecessary confusion and misleading information (Garnefski, 2007).

There are several theoretical models used to explain coping, but little research on the nature of stress and coping in children in everyday life. Band and Weisz (1988), in their paper focus on the primary-secondary coping model and aimed to analyze if there are situational differences in the manner children cope as there are in adults (Bettis, 2016). Also, Sposito, et. al. (2015) sought to answer the frequency with which children use the different coping styles and what changes there are with increasing age. Furthermore, the study analyzed the developmental differences in the frequency of coping styles used by the different age groups. It is assumed that with increasing age, secondary control coping will be more frequently used (Andres, 2016) because secondary approaches are more internal, hidden from view, thus not easily copied by children from observed behaviors of others. Consequently, to learn secondary approaches takes time and only happens after a long period of development and cognitive maturity.

The fact that coping affects emotion is a largely accepted fact but one in which little research had been done to understand how. Coping as a mediator of emotion should not to be

confused with a moderator variable. Moderator variables are things such as age and gender that already exist and interact with other variables to produce an outcome in a stressful situation (Cracco, 2015). "A mediating variable, on the other hand, is generated in the encounter, and it changes the relationship between the antecedent and the outcome variable" (Folkman & Lazarus, 1988, p. 5). Their findings suggest that coping does mediate emotions but, in some emotions, more than others and some coping mechanisms more than others as well. For example, problem solving was associated with an improved emotion state in both age groups analyzed but positive reappraisals and distancing caused distress among the older group (Seely, 2011). Nevertheless, what needs to be underscored here is the fact that emotion and coping have a bidirectionality relationship that needs to be taken into

account in further studies involving emotional states and coping mechanisms.

1.2.4 Coping and development

Skinner and Zimmer-Gembeck (2009) view coping as a set of processes that are episodic, adaptive and interactional. Episodic because it is a set of episodes that are influenced by social and individual factors that rely on previous episodes to unfold creating demands and outcomes as a result. It is an adaptive process that shapes the way in which people will function later in life and is not only limited to the effect of each individual episode but has a long-term effect on function and adaptation (Skinner & Zimmer-Gembeck, 2009). It is seen as an interactional process by Skinner and Zimmer-Gembeck (2009), because there are multiple components of stress reactions that interact with behavior, emotion, attention, cognition and motivation.

Based on reviews of theory and research on stress and coping, Skinner and Zimmer-Gembeck (2009) have created a theory of developmental shifts by age to define coping. Although they stage there are efforts to deal with stress as early as six months of age, the first

shift occurs around eighteen to twenty-four months of age in which they suggest children can regulate their own behavior. Around five to seven years of age, children can intentionally come up with behavior patters and strategies to modulate stress (Seely, 2011). This is because the child is changing developmentally in terms of memory, cognition and social relations ad self-understanding (Skinner & Zimmer-Gembeck, 2009). The third shift occurs when the child's social world expands and their view of the world and how they feel about it changes which is at around ages ten to twelve. Within the scope of this thesis we will be looking at the preschool age in which Skinner and Zimmer-Gembeck (2009) agree coping is done through voluntary direct actions by an interpersonal self-regulation strategy.

In the study of developmental coping over time, Losoya, Eisenberg, and Fabes (1998) there were two types of coping that seem to be relatively consistent over time which were constructive and nonconstructive coping. Instrumental coping or constructive coping increased over time and nonconstructive coping dropped off in usage when analyzing children four to eight years of age divided in two groups of four to six and six to eight (Bettis, et al., 2016). Emotion related coping strategies was more inconsistent across time and there were no linear changes with age (Khamis, 2015). It is interesting to note that avoidant coping as seen a positive way of coping. This might be due to the fact that the children were analyzed inn a school setting were avoidant coping on peer relations is more adaptive than would be in a situation were the parents are getting a divorce, for example, which is the difference between cognitive avoidance and behavioral avoidance.

The Early Years Productive Parenting Program (EYPPP) is composed of a five-session program that aims to teach parents, from a culturally and linguistically diverse population (CALD), how to develop healthy parent-child relationship and provide a greater sense of self and

overall wellbeing in both parent and child. It also includes home activities such as the Early Years Coping Cards and the Parenting Tip Sheets to help parents continue working with positive coping skills at home and enhance communication and bonding between family members. The Adult Coping Scale or Coping Scale for Adults (CSA) was used to determine the main coping styles in this particular group and it was found that Sharing and Optimism were the most used strategies and that CALD parents were more likely to report the use of non-productive coping strategies such as self-blame, ignore the problem and wishful thinking compared to non CALD parents (Frydenberg, Deans & Liang, 2017). Furthermore, parents reported an overall satisfaction with the program which tells us this is a valuable treatment and preventive tool and resource. This thesis will be using a version of Frydenberg's Coping Cards as an assessment tool to determine preschool age children's preferred coping mechanism. This study by Frydenberg, Deans and Liang (2017) proved very useful since this thesis will be using the same age group as was used in this study, which was composed of preschool age children.

The study by Moreland and Dumas (2007) follows the coping competency theory in which challenges are divided into three domains namely, affective, social and achievement. Therefore, instead of analyzing how children cope in different areas of their lives such as school or peers, it assesses the child's ability to deal with the different stressful situations. Coping competency theory also poses that children cope with situations in an asocial way, a prosocial way or antisocial way. It believes that all children are born with the instinctual coping mechanisms of antisocial and asocial ways in the sense that they cry when they need food, or they run away when faced with strangers or danger. This was our species' way of protecting itself and allowing us to evolve since an antisocial way of coping is being aggressive or destructive and an asocial way of coping means withdrawing or running away. With

development comes human social interaction in which the children learn how to modulate behaviors and respond in a socially appropriate way or in a prosocial way by imitating the adaptive ways of coping parents pass down to their children.

Studies have found that children who follow a prosocial way of coping as they develop, they also follow more adaptive mental and behavioral patterns. For example, these children have more complex language and metacognitive abilities then their peers and they score higher academically (Moreland & Dumas, 2007). Also, they have been shown to be more organized, more motivated, have better concentration and attentional skills, have persistency and a range of ways of solving a particular problem which shows flexibility in coping which is something proven to help children use more adaptive ways of coping. But there is not enough evidence that the competency theory s equally applicable to boys and girls and different ages. Nor do we have enough information to conceptualize coping as a construct that has several domains that overlap such as competency theory suggests or is it a sole construct that is divided in different areas of coping.

The authors of this study pose that there is little research using child samples to test theory driven dimensions of coping and it is mostly done with middle class, Caucasian children without distinguishing from age and sex (Moreland & Dumas, 2007). This study is trying to address these issues by comparing two models of coping which are the one and three factor coping models against different ages, sexes and ethnically diverse groups. And, since only 10 of the 22 measures of coping reviewed provide evidence of validity, Moreland and Dumas (2007), will seek evidence of their measure's validity by comparing it to the teacher's and parents' measures of child adjustment. They suggest that the data would support a three-factor model with affective, social and achievement coping competence as the different separate domains.

They also pose that the model will apply equally to boys and girls and the different age group. And, that high levels of coping competency will be negative correlated to parent and teacher rated behavior problems.

Band and Weisz (1990) tested whether children on Piaget's development stages of pre-operational and formal operational stages differed in their primary and secondary coping strategy when dealing with diabetes related stressors. The coping model the authors are basing their research is on a two-process model of perceived control, that distinguishes primary control, which is coping aimed at changing the circumstances, conditions or events causing the stress and secondary coping, which is aimed at changing one's perceptions of the stressful event. Children at different developmental stages differ in their capacity to acquire disease knowledge, their reasoning about personal control and efficacy and their coping styles (Sposito, 2015). Understanding these differences will give researchers a better picture of children's level of adaptation to chronic illnesses. Moreover, these factors correlate with adjustment and can be applied to healthy children.

1.2.5 Measuring coping

There are four types of recording coping in young children: self-report questionnaires, semi structured interviews, observations of behavior and teacher/parent reports (Compas, et al, 2001). The problem with questionnaires are the quality of the coping items. Some items combine more than one strategy into one item and some items are left up to the interpretation of each person's personal repertoire of coping strategies. Internal consistency is varied and only higher in broader scales (Compas, et al., 2001). Test- retest reliability have only been provided for 7 of the 22 scales and tests of construct validity have been provided for 10 of the 22 measures

analyzed by Compas, et al (2001). Also, children younger than 10 years of age are not reliable when self-reporting their behavior

Semi structured interviews have many problems as well. Children and adolescents do not recall the number and scope of strategies used when dealing with stress. Interviews underestimate the diversity and complexity of child behavior (Compas, et al., 2001). Observational methods, while an effective way of recording behavior, have the problem that it has been limited to observation of medical procedures. This is the same as reports from parents and teachers (Cracco, 2015). These reports are limited to the school setting in the case of reports from teachers or the home in the case of parent reports and children behave very differently in these different settings so reconciling the date is a daunting task.

The way children differ in their response to stress helps clarify the relationship between stress and the development of mental health problems. Boo and Wicherts (2007) analyzed the need to add Positive Cognitive Restructuring as a fifth factor in the Coping Strategies Checklist. Cognitive restructuring refers to an individual's attempts to change one's view of a stressful situation in order to see the stressor in a more positive light (Boo & Wicherts, 2007). From a developmental point of view this can provide new insight to the study of coping for clinicians and cognitive therapists. The paper also studied the relationship between coping and adequate social functioning, operationalized in terms of adaptive and positive social behavior. The relationship between social behavior and coping has not been studied but coping in relation to social competence has. Social functioning falls under social competence and includes social behavior. Social competence affects coping responses. Children who scored higher on perceived social competence reported more active problem-oriented coping in response to stress (Boo & Wicherts, 2007).

This model also examined difference across age and gender since it has been found that emotion regulation increases with age and older children tended to have a broader range of coping strategies. This study took into account the fact that cognitive coping strategies such as cognitive restructuring and decision making were found to increase in number and variety across primary school years (Boo & Wicherts, 2007). There are gender differences as well in that girls employ more emotion focused strategies than boys. There is an interaction between age and gender in that girls showed a decrease in emotion regulation strategies and problem focused coping compared to boys and increased in rumination, resignation and aggression. But girls also showed an increase in support seeking. This study hypothesized that older children would use more cognitive strategies, more emotion regulation, and use more strategies overall than younger children. It was also expected to find that girls will show less emotion regulation and less problem solving than boys but employ more support seeking coping. This is important for this thesis since it will be comparing age and gender differences in coping mechanisms in children.

The study by Minzi and Iglesias (2013) aims to analyze the different ways that we can assess coping mechanisms in children such as self-assessment questionnaires, interviews and observational reports from third parties. The authors used Billings and Moos' coping categories which is focused on coping focused on evaluation (de Minzi & Iglesias, 2013). Evaluation focused coping means modifying the way we interpret the conflict to reduce its impact. De Minzi and Iglesias (2013) used Billing and Moos' nine dimensions (logical analysis, cognitive restructuring, cognitive avoidance, seeking social support, action over the problem, alternative gratification, emotion control, punishment, emotional lack of control) to create their questionnaire for assessing coping in children. These nine dimensions are part of a larger process which consist of evaluation focused, problem focused emotion focused coping.

Since young children have a difficulty verbalizing what they feel the authors created a pictorial evaluation format for this study. They chose the three stressors that were most mentioned in the interviews and created three cards with scenes depicting children in these stressful situations. The researchers would then ask the children what they saw was happening and how they would handle it making it a very open format tool. This is important to study because this thesis will be suing a similar assessment method called Coping Cards in which children see stressful situations acted out by children, but the difference is that in the this thesis the children will have other picture cards with solutions to pick from instead of the open format these authors are using for their study. Nevertheless, de Minzi and Iglesias (2013) concluded that the best way to assess coping mechanisms in children is through the use of picture cards due to their convenience and ease of use for researchers and their ability to help children think about themselves when it is contextualized in this manner.

1.2.6 Age and Gender Differences in Coping

Eschenbeck, et al, (2007) studied situation, age and gender differences in different coping strategies. It used a three-dimensional model of coping divided into adaptive and maladaptive strategies. The adaptive strategy is further divided in emotion-focused and problem-focused strategies (Eschenbeck, et al, 2007). Within the maladaptive dimension there are four levels which are passive avoidance, rumination, resignation and aggression. In the adaptive dimension the Emotion-focused levels are minimization and distraction/recreation and in the Problem-focused adaptive dimension there are three levels which are situation control, positive self-instruction and support seeking. These are also the items on the German Coping Questionnaire for Children and Adolescents which was used to assess the gender and age differences in coping in this study. This study is basing its hypothesis on the idea that efficiency in coping is

determined by controllability of stressors. The better adjusted individuals use problem-focused strategies on stressors deemed to be controllable and they use emotion-focused strategies on stressors deemed uncontrollable (Eschenbeck, et al, 2007). It is also following the premise of previous studies which indicate that children and adolescents judge academic stressors as controllable and interpersonal stressors as uncontrollable.

The analyses resulted in significant main effects for gender in three of five coping strategies. Eschenbeck, et al (2007) found that girls scored higher in seeking social support and problem solving, whereas boys scored higher in avoidant coping. There were no gender differences in anger related emotion regulation nor palliative emotion regulation. Four coping strategies (seeking social support, problem solving, avoidant coping, and ager related emotion regulation) varied as a function of the situation with children and adolescents scoring higher in social situations than in academic situations. Gender and grade level only had statistical significance in seeking soil support. There was also a strong difference in age in the seeking social support were the older participants scored higher (Eschenbeck, et al, 2007).

The grade level and situation interactions were significant for problem solving and avoidant coping strategies. Problem solving strategies were seen less by younger children for social situations and for the older children problem solving was seen less in the academic homework situations (Wadsworth, 2015). Avoidant was used most for the younger children for the social argument situation. The older children used avoidant for the academic homework situation. Eschenbeck, et al, (2007) found that the gender differences were girls scored higher in seeking social support than boys and boys scoring higher in avoidant coping strategies was strongest for the social argument situation in the older children.

The study by Eschenbeck, et al., (2007) revealed that there was significant effect between age, gender and situation. First, there are situation differences with regards to age. In contrast to previous findings, seeking social support was used more for the social stressor and no clear age-related patterns were found for the academic stressor. Avoidant coping was lowest in older children implying developmental decreases in avoidance. Unlike previous findings that emotion focused coping decreased with age, on the present study older children scored higher in palliative emotion regulation (Halpern, 2004).

Eschenbeck, et al., (2007) state that although in accordance with previous findings, girls reported higher in seeking social support and problem solving and boys higher in avoidant, there were no gender differences for palliative emotion regulation and anger related emotion regulation. Their study also found that gender effect for coping with a poor grade was lower than coping with a peer argument. In conclusion, their study found gender differences for the three most central coping strategies of seeking social support, problem solving and avoidant coping. However, there were gender differences for coping with peer argument (social stressor) in older children (Duckworth & Schoon, 2010).

Eschenbeck, et al. (2007) suggest that coping has been situated between two conceptual frameworks that overlap which are problem versus emotion focused coping and approach versus avoidance coping. Consequently, this paper operationalized coping by creating five dimensions: support seeking, problem solving, avoidant coping, palliative emotion regulation, and anger related emotion regulation. They also claim that developmental, environmental and gender socialization characteristics contribute strongly to the different coping mechanisms employed by males and females. Moreover, by addressing factors that might influence the inconsistencies regarding gender differences in coping strategies in children and adolescents, the authors

expected gender differences in that females would seek more support and use problem solving strategies more than males, and males would use more avoidant strategies. They also evaluated the interaction effects of age and type of stressor and expected stronger gender differences in adolescence compared to late childhood and stronger gender differences (particularly for avoidant coping) for the social stressor compared to the academic stressor (Duckworth & Schoon, 2010).

1.2.7 Coping, Parenting and Family Environment

The purpose of Halpern's study (2004), is to analyze how coping regulates the relation between a child's family environment, which is a very relevant context in a child's life and that child's problem behaviors. There is an association between family context and young children's behavior problems with caregivers playing a major role in the sense that they are the ones responsible for the socialization of emotions at an early age, which is seen in studies that show a correlation between behavior problems and negative parental behaviors such as low warmth, inconsistency and high punitive tendencies (de Minzi & Iglesias, 2013). Also, a goal of this study was to see if certain strategies promoted psychological adjustment while others had the opposite effect. This is because children's behavior problems are not due only to the fact that they are in a high-risk environment (divorce, poverty, violence) but that there are not enough role models to show them how to regulate, in other words cope, with their emotions in a heathy manner. This study aimed to examine children's coping across several stressor contexts using a self-report measure and the relationship between their reported coping strategy and their problem behaviors (Halpern, 2004).

The rationale for this study is that there is growing interest in identifying young children who are at risk for developing behavioral problems because there is vast research that states that

children who exhibit externalizing disorders early on, will continue through childhood and adolescence. And, that these children that start younger are more vulnerable to chronicity of the problem and severity of delinquent behaviors compared to children whose onset of these disorders were later in childhood (Hapern, 2004). Furthermore, there is a lack of research focused on early childhood, and there needs to be clarification on the developmental nature of coping strategies in this age group. Thus, this study tried to identify factors that promote emergence of behavioral problems to help and guide prevention efforts. Using the framework of an ecological model of development, researchers will be better equipped to study the factors that increase children's risk in certain maladaptive behaviors that have an onset at such an early age (Graham, et al., 2015).

The author aims to evaluate a universal parenting program called Families Coping. Through a mixed method approach, and not just a quantitative one, it seeks to determine whether participation in the program produced changes in the coping and wellbeing of parents and their children. Gulliford, Deans, Frydenberg and Liang (2015) saw a need for an evaluation of a universal parenting program such as this one, which is also evidence-based and has accountability for what they claim they are improving by clarifying the reasons for parent participation, parents' hopes for the program and experiences of change. Parents reported a decrease in engagement of nonproductive coping from the start of the program to the end.

Although there was no significant change in parents' rating of children's coping and wellbeing, there was an increase in children's coping and behavior (Gulliford, et al., 2015). One possible reason is because coping and wellbeing need more time for skills to transfer from parents to children (Hampel & Peterman, 2005). The study was very fruitful since there was a visible increase in parents' perception and knowledge of coping skills, and they came out of the

study feeling more mindful and better equipped regarding their parenting skills as well as enhanced communication with their children who they deem better behaved and more connected to them. This can be applied as a follow up project to this thesis project.

In the research by Pincus and Friendman (2004) the authors reviewed several different intervention programs designed to teach children coping strategies in the school setting because few studies have examined the effects of coping skills training on the number of strategies a child can produce in response to a challenge or stressor and few have examined the effects of skills trainings on children's subsequent use of particular types of strategies. Their main concern is that, to date, there are no known school-based intervention programs have examined whether teaching young children to employ emotion focused coping strategies such as emotion regulation, cognitive distraction, or cognitive restructuring affects the frequency of their use of these strategies (Cappa, et al., 2011). This study is important for this thesis because there is a special focus on impact of training on children's use of coping strategies and efficacy of their coping strategies. These findings will be helpful in guiding future research based on this thesis' contributions.

Research says children have the ability to use emotion focused coping strategies and that they would actually use them if they knew what they were, or if they had the behavioral skills to execute them (Pincus & Friedman, 2004). The Coping Cards tool that will be used in this thesis is a useful tool in the sense that children can look at the situation and then answer with emotional based coping skills by pointing to the card that represents that emotion focused coping strategy. They do not need to have the vocabulary or knowledge of such skills because the picture will be self-explanatory. So, it is a suitable tool for both research and for teaching coping skills to young children. In the study Improving Children's Coping with Everyday Stress, Pincus and Friendman

(2004) talk about the fact that children as young as 5 years of age are capable of acquiring and executing problem and emotion focused strategies which is why this thesis will include three and four-year-old children. There is very little research done on children of four years of age and practically none with three-year-old children (Garnefski, Rieffe, Jellesma, Terwog & Kraaij. 2007). This thesis will be including three-year-olds as well because healthy children start to understand their own emotions and that of others, commonly referred to as "theory of mind", at the age of three. This means they are capable of empathy and are capable of knowing that they are thinking and what they are thinking as well, also known as metacognition, starting at around three years of age so they should be able to identify and learn coping skills as well (Morales, et al., 2016).

It is also important to understand, before analyzing any specific research study that children shift their coping efforts depending on the context and situational demands. For problems they deem controllable children use more primary or problem focused strategies and emotion focused strategies or secondary strategies when they deem the problem uncontrollable. But research has also shown that if they do not have enough emotion focused strategies in their repertoire, they will resort to problem focused strategies. Eisenberg, et al., (2009) point out that children who are better adjusted are those that use emotion focused strategies when appropriate even if a problem focused strategy would work.

Out of the programs evaluated by Pincus and Friedman (2004), The Interpersonal Cognitive Problem-Solving Curriculum (ICPSC) seems like a promising problem focused coping training program. This program teaches children to generate multiple alternative solutions to interpersonal problems, to consider the consequences of the solutions and to implement a chosen solution to reach a desired goal. It was proven to be effective at improving classroom behavioral

adjustment (Pincus & Friedman, 2004). But, like many other programs, it has failed to prove the effectiveness of children actually applying what they learned to actual stressful situations. The same problem was seen when analyzing other programs that taught emotion focused coping strategies such as the Rochester Child Resilience Project in the sense that it didn't measure the impact of the strategies the children learned on actual situations faced. Overall, the program indicated improvements in children's perception of self-efficacy when dealing with stressful situations and gains in knowledge of how to handle multiple stressful situations. Furthermore, the Rational- Emotive Education program created by Vernon has been proven to improve children's social competence and prosocial behavior but has not been tested formally in the school setting nor have they made it into school curriculums (Pincus & Friedman, 2004).

The "I Can Do" program was the only program the authors found that actually had a positive effect on children's application of various coping strategies. Nevertheless, the program taught children strategies in both problem and emotion focused coping mechanisms, so it is unknown what the effect of each strategy learned on actual coping methods had on subsequent coping choices (Pincus & Friedman, 2004). Since most of these studies have focused on teaching children problem focused coping skills, there needs to be more programs aimed at teaching children emotion focused skills to be able to later evaluate them and see their effectiveness on actual employment of these strategies on actual life stressors (Moreland & Dumas, 2008). The positive aspect of this thesis is that the research involves evaluating children's coping choices using a tool where there are a large number of emotion focused coping strategies to choose from. From the answers obtained by these children in this thesis we can see how much knowledge they already possess and how much is needed to be taught. And, we can use this same tool, the Coping Cards, to teach them adaptive emotion focused coping strategies since most emotion

focused strategies seen in research suggests that children choose maladaptive emotion focused strategies and rarely choose adaptive ones. Pincus and Friedman (2004) suggest that based on the results of these studies, children can be taught emotion focused strategies, and these are more adaptive in general sine it affords the children more flexibility when choosing a strategy and flexibility was linked to healthier behavioral and emotional development.

Most of the research on child coping is focused on how parents express their emotions in stressful situations but not specific parenting characteristics such as level of parenting stress in a specific point in time and not longitudinally to a limited sample racially and socio-economically. And, the majority of research has operationalized children's coping using coping theories that have only been validated for adults instead of the three coping domains found by Moreland and Dumas (2008), which involves research using children as a sample population. There is a strong relationship between children's coping responses and the way parents react. This study analyzes the bidirectional relationship between parenting stress and child coping using the coping competence model developed by Dumas and Moreland (cited in Cappa, Moreland, Begle,, Conger, Dumas, and Conger, 2011). With the aid of the Eyberg Child Behavior Inventory – 2 (for problem behaviors), the Coping Competence Scale and the Parenting Stress Index/Short form applied to 610 parents, the authors seeked to prove if higher levels of parenting stress will be related to each of the separate child copping competence domains, if there will be a bidirectional relationship such that parenting stress will predict later child coping competence, and, child coping competence will predict later parenting stress (Cappa, et al., 2011).

1.2.8 Assessing Different Coping Strategies

The study by Rodriguez, Torres, Páez and Inglés (2016) was aimed at analyzing the frequency (per problem) of strategies for coping with daily stress in children; namely health,

school/peers and family, as well as in general terms, regardless of the context was deemed important to study since the authors saw few studies that evaluated the prevalence of strategies used by children to cope with daily stress, which has been proven to show greater negative effects than chronic stress or negative life events. According to Rodriguez, et al., (2016) this age group has been less studied and maybe has a greater variety of coping strategies according to each problem because children have less knowledge of coping strategies than adolescents and because children are not affected by the social uniformity that affects most adolescents. So, by conducting an epidemiological analysis of the way children cope with daily stress, in relation to three everyday problems and describing socio demographic, context and teacher assessment's variables, the article aims to clarify which of the coping strategies (active solution, passivity, search for information, emotion, behavioral avoidance, social support, keeping the problem to oneself) is more common.

Furthermore, Morales and Trianes (2010) analyzed the level of psychological adjustment in relation to four types of stressors namely, school, family, peer interaction and health. There aren't many studies that link the type of coping strategies children use and the level of psychological adjustment and behavioral problems. By assessing the level of psychological adjustment reflected in the Sistema de Evaluacion de la Conducta n Ninos y Adolescentes (BASC), the Inventario Infantil de Estresores Cotidianos (IIEC) and the scores on the Estrategias Situacionales de Afrontamiento en Ninos y Ninas (ESAN) related to each of the four types of stressors the study aimed to determine which stressor children deal with the best and with which strategy. Morales and Trianes (2010) found that in the school and peer stressors situation, children scored lower on the use of emotion coping strategies which is contrary to what most authors have found. This is because they specify the context of the situation by using the ESAN

tool which gives us a clearer picture of the external conditions and what makes their study different than most coping research involving children.

Since stressful events are related to emotional and behavioral problems this paper by Compas, Malcarne and Fondacaro (1988), focuses on several issues that it deems important in understanding coping in children and adolescents. "Individual differences exist in the levels of problems that are associated with stressful experiences…that is due in part to differences in the resources available and methods used by children and adolescents to cope with adverse events (Compas, et al., 1988, p 7)." Also, the paper studies the ability of children to come up with better coping solutions, what solutions they actually used and the relationship their strategies have with successful coping. To reduce the effect of stress, children need to engage in both problem and emotion focused coping strategies so, problem focused and emotion focused coping strategies were analyzed to see their relationship to emotional and behavioral problems (Coolahan & Mendez, 2000).

Furthermore, the Compas, et al., (1988), see a need for developing a methodology for assessing child coping strategies across different situations to see their consistency and variability of these strategies since past studies have seen more consistency in children coping behavior than in adults cross situationally. Compas, et al., (2014) studied ways to clarify the relationship between coping and cognitive appraisals or how the degree of controllability matches how the person is coping. This is because one of their basic premises, which was partly proved in this study in the higher behavioral problems as expressed by the scores on the CBCL, was seen in youngsters who generated fewer problem focused alternatives when they felt they had control over the situation or who generated many problem focused alternatives when they felt they had no control over the situation. Similarly, lower behavioral problems were seen in

youngsters who generated fewer problem focused alternatives when the felt they did not have control and many problem focused alternatives when they felt they had control. Regarding this last point the authors do warn that the findings of the match between the coping and appraisal of control was only found for one type of situation (academic) and one type of coping (problem-focused) (Compas, et al., 2014).

Other authors propose that children begin to regulate emotion by age 2 and that by age 4 to 5 children can correctly judge the reason for emotions even though they still tend to attribute them to external factors and not internal states (Chalmers, Frydenberg & Deans, 2011). Research has led some authors to believe that much like adults and adolescents, children can cognitively appraise a stressful situation in order to deal with it and that four year olds already know when to distinguish emotions in themselves and others and since it has been proven that they already know how to regulate emotions, that we can learn more about how they go about it by assessing their language in coping and assessing what strategies they use in situations that are relevant to them. Consequently, since there is little research on early childhood and coping to guide program development in this area, by using the Situation Cards developed by Frydenberg and Deans (2011) the study aims to understand the coping strategies of 4 year old children in order to guide the development of a social emotional component of the preschool curriculum and enable early intervention strategies. This study in particular is very useful for this thesis since they use a similar version of the Coping Cards developed by (Chalmers, Frydenberg, Deans & 2011), which is one of the few methods available to assess coping in preschool age children.

A quantitative meta-approach to examining the associations between parenting and self-regulation in young children is lacking. Few studies have investigated the relation between parenting behaviors and different conceptualizations of self- regulation. meta-analysis is

intended to shed light on the links between self-regulation in preschoolers and parenting (Karreman, Van Tujil, Van Aken, & Dekovic, 2006). It analyzes studies on preschool age children because by 36 months children are able to self-regulate or modulate their behavior depending on the changing situational demands and parents play an important role by giving children the basic guidelines for appropriate behavior (Karreman, et al., 2006). It considers the various conceptualizations of self-regulation and its categories. For example, compliance, inhibition, emotion regulation an effortful control. Effortful control is not included in this study since there are not enough studies examining effortful control and parenting. But, before delving into the analysis compliance is an early form of self-regulation in which the child modulates his or her behaviors in response to the parent's requests (Karreman, et al., 2006). Inhibition is a form of delaying gratification, self-control or latency to approach unfamiliar situations. Emotion regulation is their way of managing emotions using strategies that are temperament driven and effortful control which is an advanced form of self-regulation in that the child already has the ability to suppress his or actions to be able to perform other actions (Davis, et al., 2011). All these are categories of self-regulation and they differ in the degree of internalization required, the kind of modulation employed and behaviors or emotional domains that are modulated.

There are positive and negative parental control behaviors. Positive behaviors have to do with teaching and guiding behaviors in a positive and encouraging way and is positively correlated to self-regulation while negative parental control is the opposite. Negative parental control has to do with punishment and harsh verbal power assertive behaviors that undermine emerging internalization that be responsible for lack of self-regulation (Karreman, et al., 2006). Nevertheless, this is a bidirectional interaction in the sense that children who possess good self-regulatory skills will bring out positive parenting techniques in their parents and those who lack

self-regulation will create an environment where parents feel frustrated and will express it in negative ways. Responsiveness is the other type f parenting behavior examined here and I t has to do with behaviors related to passive affect and a warm and accepting parenting style. These parenting styles were examined with the categories of self-regulation instead of self-regulation in general. In past studies the relation between parenting styles and categories of self-regulation seem to be most consistent for compliance, for inhibition it seems to go in the opposite direction and emotion regulation was seen as having a non-significant association (Davis, et al., 2011).

Karreman, et al. (2006) aim to answer the question if indeed there are three categories of parenting (positive control, negative control and responsiveness) related to self-regulation in preschoolers with this meta-analysis. And, if various conceptualizations of self-regulation (compliance, inhibition and emotion regulation) are differently related to parenting. By undertaking a quantitative meta-approach to examining the associations between parenting and self-regulation in young children which they believe is lacking, because few studies have investigated the relation between parenting behaviors and different conceptualizations of self-regulation (Cools & De Martelaer, 2009), the present meta-analysis is intended to shed light on the links between self-regulation in preschoolers and parenting. Furthermore, there are many studies that state that school age children's development is affected by the characteristics of the family environment such as poverty, social climate and family disruptiveness (Hoglund & Leadbeater, 2004). Duckwork and Schoon (2010) also point out that while family influence is more important during the preschool years cognitive competence influences social competence and vice versa.

Chapter I Summary

The first step to defining coping is acknowledging that coping is different at different developmental stages in life. Moreover, we need to separate coping form other ways in which individuals handle stress. Coping involves the ongoing efforts to adapt cognitively and behaviorally and the modification of the self towards the environment, which can also be expressed in terms of stress management; one is either managing the situation that is causing the stress or managing how one feels about the situation causing the stress. There is also an interaction between age and gender. This is important for this thesis since it will be comparing gender differences in coping mechanisms in children of the same age. Developmental, environmental and gender socialization characteristics contribute strongly to the different coping mechanisms employed by males and females, which is why this dissertation project will take into consideration the demographics variable when analyzing the results from the different assessments used.

Chapter 2: Empirical Study

2. Introduction

Our main goal is to find out if there are differences in coping mechanisms in preschool age children with relation to their cognitive and social emotional level taking into account their gender and their parents' level of schooling

This chapter will describe the steps taken to obtain the information regarding coping and the relation between this and the different objectives proposed in this thesis. We will explain the tests and measurements used and how the results were interpreted. We will also briefly describe the rationale behind these tools and how it aided in the development of the results and findings.

2.1 Objectives

General Objectives

Verify differences in coping mechanisms in preschool age children with relation to their cognitive and social emotional level considering their gender and their parents' level of schooling.

Secondary Objectives:

1- Verify if there are differences between coping mechanism and gender.

2- Verify if there the differences of coping mechanisms and parents' level of schooling.

3- Substantiate if there is a relation between children's coping mechanism and parents' level of schooling.

4- Test if there is a relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Mathematical Measure.

5- Test if there is a relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Oral Language and Vocabulary Measure.

6- Test if there is a relation between coping mechanism and social emotional performance as assessed through the Ages and Stages Social Emotional Questionnaire Score.

7- Verify if there is a relation between coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Problem Solving Measure.

8- Corroborate if there is a relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Communication Measure.

9- Test if there is a relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Personal Social Measure.

2.2 Method

2.2.1 Participants

The sample will be taken from Montessori Learning Center's Pre-k 4 class. There is a total of thirty-eight (n= 38, 100%) students in the two pre-k 4 classes. The sample will be collected using children who are four years of age only. All the Children are bilingual in English and Spanish. There are twenty females (n= 20, 52.6%) and eighteen (n= 18, 47.4%) males. There are seven with a level of masters, professional, doctorate degree (n= 7, 18.4%), twenty five with an associate's or bachelor's degree (n= 25, 65.8%), six with elementary, high school or GED degrees (n= 6, 15.8%).

2.2.2 Materials

Florida Voluntary Prekindergarten Assessment

This project will employ the statewide mandatory Florida Voluntary Prekindergarten Assessment tool to all children sampled first. This test was created by the Florida Department of Education and the Florida Center for Reading Research and there are four sections which are the Print knowledge Measure with a possible total score of twelve (12). This part tests the child's awareness of the letters in the alphabet. The child is given a one (1) for every correct response and a zero (0) for every incorrect response.

The second part is called the Phonological Awareness Measure with a possible total score of fourteen (14) and measure the child's ability in recognizing the sounds of the letters in

the alphabet. The third part is the Mathematical Awareness Measure measuring the child's level of basic mathematical skills, with a total possible score of eighteen (18), and the last part which is the Oral Language/ Vocabulary Measure, with a total possible score of twenty-three (23),which measure the child's ability to name objects and recognize language concepts. These two last parts, the Mathematical and Oral language/Vocabulary Awareness Measures, will be the only ones used in this thesis project. These last three parts are also scored the same way as the first part.

Ages and Stages and Ages and Stages Social emotional Questionnaires

Then we will administer both the Ages and Stages and Ages and Stages Social emotional Questionnaires. These tests were created by Jane Squires, Diane Bricker, Elizabeth Twombly in 2002 by Paul H. Brookes Publishing Company. The Ages and Stages is a self-scoring test and has a chart that divides the section into Communication, Gross Motor, Fine Motor, Problem Solving and Personal-Social. There is a cut-off score for each of the sections. We will be using only the Communication, Problem Solving and Personal Social Scores for this thesis project. The Ages and Stages Social Emotional Questionnaire is also a self-scoring tool that has a cut-off score of seventy (70) for the overall test. There are three possible answers for every question scored ten (10), five (5) and zero (0). The sum of these should not fall above the cut off score of seventy (70) or the child will be referred to a specialist.

Following this we will introduce the Emotions with Emojis lesson component, which is a material created by the researcher consisting of an emoji calendar in which children will place the emotion (emoji) they are feeling every day when they come into class under the corresponding day. This is to introduce children to the concept of emotions and how they change and can be managed.

Sociodemographic Questionnaire

The project will also include a socio demographic questionnaire to determine parents' level of education and children's social emotional competence.

Coping Cards

The project will follow with an observation and recording of which coping solutions the children sampled chose when presented with one of nine (9) situations cards form the Early Years Coping Cards tool. They will have a choice of twenty-two (22) coping cards as a response to each situation. The researcher has divided these twenty-two (22) coping cards into emotion focused coping and problem focused coping strategies and the nine (9) situation cards into controllable situations or uncontrollable situations. Hence for each situation that can be controllable or not the child will respond in an emotion or problem focused way.

2.2.3 Procedures

After an extensive literature review on the topic of coping mechanisms in preschool age children and being approved by the ethics committee of Universidade Fernando Pessoa, the researcher decided on specific questionnaires to be used to assess children's cognitive and social emotional level. The parents were handed the consent forms first. The parents placed the consent forms in an envelope and were sealed in front of them. The envelopes had a code that corresponded to a code in each child's questionnaire, consent form and socio demographic questionnaire to determine which consent forms belong to which child and maintain complete anonymity. The parents were explained what the purpose of the study is and told that they can ask as many questions as they would like, and that the researcher will always be available to answer further questions throughout the study. The researcher works in the school where the

sample is coming from so the researcher will be available to answer any questions the parents might have at any point and allow parent to see all the materials being used.

The assessments were the Ages and Stages (Annex 1) and Ages and Ages and Stages Social Emotional Questionnaire (Annex 2). The researcher assessed the children using the statewide mandatory Florida Voluntary Prekindergarten Assessment Tool (Annex 3). Furthermore, the researcher developed a tool to teach social emotional competence, called the Emotions with Emojis Calendar (Annex 4), that followed the previous assessments. The Coping Cards Tool (Annex 5) was used after the consent forms and socio demographic questionnaires (Annex 6) created by the researcher had been handed out and returned.

Afterwards, the researcher had meetings with the teachers to explain the study procedures and purpose and schedule dates to come in and do the evaluations. As an introduction to the Coping Cards assessment that was performed in the sample of four-year old children that was used in this study there was a social-emotional lesson component, Emotions with Emojis, to teach children emotional competence. This component of the program preceded the coping cards evaluations to be performed on all the sampled children. As Jeans, Frydenberg and Tsurutani (2010) put it, emotional awareness, expression and competence is a process that begins in early childhood and continues throughout adolescence, but I would add that it continues throughout our lives as we are put in different situations each day from which we are still using the tools learned in childhood. After all of the data has been collected, the researcher will analyze it qualitatively and quantitatively using IBM SPSS Statistics.

The materials for the program were created by the researcher using emoji post it note cards. The emoji cards that were used were only four out of the eight the pack brings: the happy face, the sad face, the angry and the one with the eyes that are hearts which was decided to be

called ‘interest’. The angry and the sad emojis were modified emojis that were already in the pack since sad and angry do not come in the pack. The other materials were a regular classroom wall calendar that will be modified by removing Saturday and Sunday and replacing it with the child’s picture, this way they can place their corresponding emoji or feeling next to their picture on the day of the week column. This project only included four emotions as a starting point because there is some overlap in some other emotions which is more complicated for this age group to grasp or needed for their social emotional development at this specific point they are in developmentally.

> Emotional competence is viewed as an organizational construct that reflects the child’s capacity to integrate behavioral, cognitive and affective sills with emotional expression, emotional regulation, knowledge of emotions, social problem solving and positive and negative social behavior considered important parts of the construct (Jeans, Frydenberg & Tsurutani, 2010, p. 7).

Boredom is one such example of an emotion that was left out of the project since this is something that is not interfering with their social emotional development in an unhealthy manner. Disgust is another example that can fall under anger or overlap it, because it is a feeling of something that is making you uncomfortable and ultimately angry. During these preschool years, children are still learning what the different emotions are, how to recognize them in themselves, in others and how to manage them. This is essential for children’s emotional intelligence because after gaining these skills, they will effectively predict how the other person will react making it easier for them to choose the appropriate behavioral response in the different situations, which will be very useful in navigating adulthood with its many psychological

demands and pressures. It has also been found that positive social emotional competence in preschool is linked to improved grades and overall school achievement (Graziano, et al, 2007).

The first step of the program was to explain to the children the emojis that are going to be used. We asked examples of these emotions in themselves and others. Furthermore, it was explained to them that every morning they will have to come in and place the emoji representing their feeling for that morning on the corresponding day of the week. They were encouraged to use all emojis and it was explained to them that we are not always happy or interested, and that applies to going to school as well, and that every day our emotions can change. It was also explained to them that we can change our feelings at different times of the day that this is a normal part of how feelings and emotions work. We gave them the example that we can suddenly become very angry if someone takes our toy, but you are also capable of managing this emotion and changing it. Also, we taught them that there are different emotions other people might have to the same problem and we need to acknowledge, understand and accept that. Another child might become sad when their towy is suddenly taken away instead of angry and that this is a completely normal and understandable emotion to the same situation in which another child might have become angry. We also explained that sometimes we think we are angry, but we might actually be sad.

To practice the changing of emotions from sad to happy, for example, we placed a small mirror next to each of the calendars so when they are feeing sad the teacher can promptly produce a question that will make the child smile and shift emotions such as “how was your vacation Billy”. We explained to the children that only we can control our emotions and consequently our feelings and that by allowing a period of 10 minutes to cool off might be just the way to go about that. There are no specific coping mechanisms that is correct for each

situation. Coping is close to the concept of adaptation so the better we learn to cope with situations the better we will adapt to our environment (Jeans, Frydenberg & Tsurutani, 2010). We also explained to the teachers that children are more likely to use problem-focused coping or active coping mechanisms when they feel the problem or situation is under their control. They will use more passive or emotion-focused strategies when they feel the situation or stressor is uncontrollable (Compas, et al, 1988), which is important for the teachers to understand because it will first, give them more empathy towards the child and the situations and, second, give them better tools to handle the situation. Although, it is possible that in a school setting the situations that will arise are more controllable than not except in the situation where the child is left at school by the mother, which is an uncontrollable situation and sometimes causes a great deal of stress to some children.

It was also encouraged for them to look at and identify their friend's calendar and emoji of the day to see if they are sad or angry and to ask that child why he is sad or angry. This is good for them to learn to respect others' feelings and if they were the cause of that feeling then they are ultimately responsible to help that other child resolve those feelings. This was also done for happiness emoji several times but not as frequently since children are most of the time happy and the lessons are not as effective with this emotion. Moreover, this was all done keeping in mind that children's stressors are different than adult stressors. The teachers were taught that the types of stress children face are related to fear of abandonment, fear of bathroom accident, or fear of teacher reprimand.

After introducing this new lesson there are books about different emotions, so the researcher read a book on being happy to start the process but other books with negative emotions will also be read. The teachers were also encouraged to place their emotions on the

calendar, so they are held accountable for their actions. This was also taught to parents to do at home, so they are held accountable for overreacting or acting out of character. That way they can explain to their children that the way they reacted made them sad with themselves for example and that sometimes we get sad for things we do and not things other people do to us. Sometimes we can get sad or angry for something other people do but it is because we are allowing that person's actions or comments affect the way we feel, and we have control over that. That is where the mirror work comes into play. It is to show the children that it is just as easy to make a happy face as it is to make a mad face and that these faces also affect the mood of the people around us. We are teaching responsibility and empathy at the same time as social responsibility and social competence.

Following this Emotions with Emojis component, The Early Years Coping cards was applied to all children, which is simply is a visual tool, not a formal psychological evaluation or assessment. It is a tool used to explain coping skills to young children. It is a fun and easy material that is useful in helping children focus on the specific situation we are inquiring a bout and the answers are giving by pointing to other cards with scenes of possible solutions to these challenging situations. It is an easy to use material for assessing and teaching coping skills in young children. There are nine situation cards and twenty-two coping cards. The situation cards are: Being afraid of trying something new; having to choose between friends; being anxious about leaving someone you love; fear of the dark; getting in trouble with the teacher or parent; wanting to belong to a group; being bullied or teased; broken toy; getting hurt. The coping cards are: Think happy thoughts; Hug a toy; Blame others; Blame self; Scream/Cry/Tantrum; Talk to an adult/someone; Worry/Scared; Keep feelings to self/Stay quiet; Run away/leave home; Stop

and think; Hide; Help others; Cry; Think Calm thoughts; Blame self/Get angry; Work Hard; Complain of pain; Worry; Say sorry; Run away; Play; Help others or share.

The researcher first showed these situations cards to the entire class as a way to save time and ask them to say what they see. Then, building on what they say, explain to them what the situation is in the situation cards and then what the different coping responses are as well. The questions asked were "what do you see?"; "what do you think is happening?"; "How does the child in the picture feel?"; "What do you think the child would do?"; "Has this happened to you?"; "How would you feel if that was you?"; "What would you do when you feel like this?"; "What would you do to make yourself feel better?". Each card has a description in the back to help the researcher remember what each card is exactly and not repeat or confuse situations or coping techniques.

After this introduction the children were taken to a private space to assess individually. The researcher placed all of the 22 coping cards on a table and present the situation cards one by one and asked the child to point to the coping card he or she feels is the best way to respond or react to the specific situation card. The researcher recorded each child's answer on an excel spreadsheet which has been marked with the name of each of the situation cards as the independent variables and the category of coping response as the dependent variable. This category is Problem Focused coping and Emotion Focused coping. This is after establishing which of the coping cards fall under problem focused coping and which fall under emotion focused coping which is something not described in the material by the authors but has been mentioned in previous articles written by these authors such as Operationalizing Social and Emotional Coping Competencies in Kindergarten Children by Frydenberg, and Tsurutani, . (2010).

Emotional literacy is a learned skill and it refers to the capacity children have to understand emotions in themselves and in others. Therefore, the Emotions with Emojis lesson created by the researcher is an important lesson to be taught in the preschool years and to have the teachers aware of its implications for future psychological competence in children. In the study by Sorin, 2004 "the author analyzes the emotion of fear since it is one of the most prevalent and problematic of the emotions in young children and sheds light on the issues relating to multiculturality of emotions since they found that there were discrepancies in the way Australian children reacted to fear compared to Canadians. The population sampled in this thesis is mainly from Latin American background but there are some exceptions with a minority of Asians and Americans in the sample.

This project aims to add to the body of research in child coping since there is more adolescent coping styles and mechanisms research than preschool age coping research. Emotions with Emojis program takes into account the fact that some emotions such as fear are innate and have helped with the survival of our species. It has personal and social functions such as in the "fight or flight" response. This response prepares the body for physical action in case we need it by placing the body on an alert level in case of impending danger or by making the person cooperate, withdraw or defer to build better social bonds depending on cultural values of the society we live in (Sorin, 2003). The teachers and the parents need to be educated on these issues to get a better overall outcome of the program.

Results

Results of the assessments and measurements taken on the sample will follow.

Table 1. Breakdown of sampled population by gender

Gender	Total	%
Female	20	52.6
Male	18	47.4
	38	

Table 2. Breakdown of sampled population by parent's level of schooling

Degree	Total	%
Masters, Professional, Doctorate	7	18.4
Associate's, Bachelor's	25	65.8
Elementary, High school, GED	6	15.8
Total	38	100

The results based on our objectives are as follows:

1- Verify the differences between coping mechanism and gender.

There is no statistical significance in the problem-focused coping mechanism children use regarding gender, $U = 178.500$, $p = .964$. Problem- focused coping is used equally between four-year old girls and boys.

There is no statistical significance in the emotion-focused coping mechanism children use regarding gender, $U = 181.500$, $p = .964$. Emotion- focused coping is used equally between four-year old girls and boys.

2- Verify the differences of coping mechanism and parents' level of schooling.

There are no statistically significant differences between problem-focused coping mechanism and parents' level of schooling, $X^2\,(4) = 4.570$, $p = .334$.

There are no statistically significant differences between emotion-focused coping mechanism and parents' level of schooling, $X^2\,(4) = 4.570^{a,b}$, $p = .334$.

3- Verify the relation between children's coping mechanism and parents' level of schooling.

There is no statistically significant correlation between parents' level of schooling and emotion-focused coping, r_{pb} = -.190, p = .253. There is no statistically significant correlation between parents' level of schooling and problem-focused coping, r_{pb} = .190, p = .253

4- Verify the relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Mathematical Measure.

There is no statistically significant correlation between coping mechanism and the VPK Mathematical measure score and emotion-focused coping r= .161. There is no statistically significant correlation between coping mechanism and the VPK Mathematical measure score and problem-focused coping r= -.161.

5- Verify the relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Oral Language and Vocabulary Measure.

Table 3. Problem and Emotion focused coping correlated with VPK Oral Language Scores

		Problem	Emotion	VPK OLV
Problem	Pearson Correlation	1	-1.000**	-.360*
	Sig. (2-tailed)		.000	.026
	N	38	38	38
Emotion	Pearson Correlation	-1.000**	1	.360*
	Sig. (2-tailed)	.000		.026
	N	38	38	38
VPK_OLV	Pearson Correlation	-.360*	.360*	1
	Sig. (2-tailed)	.026	.026	
	N	38	38	38

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

There is a statistically significant positive correlation between the VPK Oral Language scores and children's emotion focused coping, r= .360, p >.05. There is also a statistically significant negative correlation between the VPK Oral Language scores and children's problem focused coping, r= -.360, p <.05.

6- Verify the relation between coping mechanism and social emotional performance as assessed through the Ages and Stages Social Emotional Questionnaire Score

There is no statistically significant correlation between coping mechanism and the Ages and Stages Social Emotional scores and children's problem focused coping, r= .233, nor children's emotion focused coping, r= -.233.

7- Verify the relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Problem Solving Measure.

There is no statistically significant correlation between coping mechanism and the Ages and Stages Problem Solving scores and children's problem focused coping, r= .070, nor children's emotion focused coping, r= -.070.

8- Verify the relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Communication Measure.

There is no statistically significant correlation between coping mechanism and the Ages and Stages Communication scores and children's problem focused coping, r= -.068, nor children's emotion focused coping, r= .068.

9- Verify the relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Personal Social Measure.

There is no statistically significant correlation between coping mechanism and the Ages and Stages Personal Social scores and children's problem focused coping, r= -.107, nor children's emotion focused coping, r= .107.

Discussion

-With regards to our first objective, verify the differences between coping mechanism and gender, no statistically differences were found. Many studies encountered this finding as well such as in the Eschenbeck, et al, (2007) that studied situation, age and gender differences in different coping strategies. No significant relation was found in this thesis with this sample, but further studies on how child temperament influences coping need to be performed. Cole, et al. (2008) accounted for gender in their study and acknowledge that there is evidence that girls are more emotionally aware than boys perhaps due to different socialization, but there is a lack of understanding on which strategies girls prefer over boys and vice versa and their level of understanding of said strategies.

-When verifying if there were differences of coping mechanisms and parents' level of schooling. Hampel & Peterman, (2005) came to similar conclusions as our thesis' results. There are is no significant correlation between these two concepts. Culturally and Linguistically Diverse (CALD) parents present a unique set of challenges compared to non-CALD parents (Frydenberg, et al., 2017), but our study did not yield such results.

-There is no relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Mathematical Measure but Sala, et al., (2014) did find that IQ was the factor contributing to higher use of cognitive reappraisal which is a type of emotion regulation or coping mechanism.

-When testing if there is a relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Oral Language and Vocabulary Measure we did find a correlation. In line with Cole, et al. (2008) that found that a child's expressive language skill and complexity of their spontaneous speech predicted strategy generation but not strategy recognition. This can be due

to the fact the more developed the child is in their language skills the easier it will be for him or her to come up with appropriate coping solutions in different situations. This was seen in this research project. There is a statistically significant positive correlation between the VPK Oral Language scores and children's emotion focused coping. There is also a statistically significant negative correlation between the VPK Oral Language scores and children's problem focused coping.

-There was no relation between coping mechanism and social emotional performance as assessed through the Ages and Stages Social Emotional Questionnaire Score. Previous findings identify a relationship between the child's understanding-and use in the narratives- of a variety of emotion regulation strategies on the one hand and the ability to manage emotions in real life contexts on the other (Sala, Pons & Molina, 2014).

-Wen verifying if there was a relation between coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Problem Solving Measure we found no correlation but also very few studies that spoke about this concept with this perspective. Sposito, et al., (2014) did find that with increasing age or cognitive maturity, disease knowledge is markedly more important in determining medical adjustment, for example and that the coping mechanism the child chooses has to do with the perceived competence he or she feels he has to cause actual change in a specific situation (Derryberry, Reed & Pilkenton-Taylor, 2003).

-We did not find statistically significant results in relation to coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Communication Measure. Similarly, Cole, et al. (2008) understand that child temperament influences how a child copes and they suggest that highly reactive children will have more

opportunities to practice self-regulation skills but that these children are also less likely to notice the learning opportunity when it arises due to their own anger or frustration.

-There is no relation found between coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Personal Social Measure such as in similar studies in which was found that it is more important to study this from the point of view of their adaptiveness value which Kochenderfer-Ladd and Skinner (2002) argue that it has to do with the type of stressful situation encountered and the frequency of that situation happening to that child and not just which coping mechanism that was used.

Tobin, et al. (1989) began a process of analyzing the structure of coping taking into consideration the different approaches of defining coping such a Lazarus and Folkman's Problem and Emotion-focused coping, the approach and avoidance strategies or adaptive and maladaptive theories of defining coping mechanisms by the different authors. Their hierarchical structure of coping divided coping into higher order Engagement and Disengagement categories (Wang & Saudino, 2011). The Engagement category had the Problem Engagement and Emotion Engagement and the Disengagement had the Problem Disengagement and Emotion Disengagement. Furthermore, the coping cards are divided into three categories which are Productive Coping- Self Reliant, Productive Coping- Reliance on Others and Non-Productive Coping. Productive Coping- Reliance on Self has coping responses such as Think Calm Thoughts or Stop and Think. Productive Coping-Reliance on others has coping answers such as Talk to an Adult or Say Sorry, for example. And Non-Productive Coping has items such as Cry or Run Away. In each of these categories we can find Engagement and Disengagement strategies as well. Productive Coping-Reliance on Self's Think Calm Thoughts is a type of Problem Disengagement strategy- Wishful Thinking and Stop and Think would fall under

Problem Engagement strategy- Cognitive Restructuring. Productive Coping-Reliance on others has Say Sorry which is Emotion Engagement- Express Emotions and it has Talk to an Adult which corresponds to Problem Engagement- Problem Solving. In the Non-Productive Coping category, we have a coping card that is Cry which corresponds to Tobin, et. al.'s Emotion Disengagement-Social Withdrawal and we have Run Away which would correspond to Problem Disengagement- Problem Avoidance.

With this comparison we can see that there have been many attempts to create a coherent and consistent definition and structure of the concept of coping with little success. Both of the beforementioned definitions or categories of coping mechanisms serve well when analyzing the construct (Yeo, et al., 2014). What needs to be taken not consideration is the type of study it is going to be used to or if it is to be used as a preventive and teaching tool such as in the classroom. The productive and non-productive way of looking at this concept is easier for parents and educators to grasp and easily access tools to teach and give children examples of what would be considered productive or not. For research purposes we can use Tobin, et al.'s (1989) hierarchical analysis because it would be a useful tool in creating assessment and screenings. Or creating Social Emotional Learning Programs for schools, for example, using a productive versus non-productive strategy would be more beneficial and produce better results.

Based on the lack of statistically significant differences or correlations between coping mechanisms children used in this project's sample we can infer that there needs to be different ways of testing this construct of coping. "Emotion Regulation Strategies in Preschool Children" analyzed the narratives elicited by children using a novel experiment that yielded interesting results: "Theorists have argued that narrating and storytelling enable children to access their scripts, defined as mental representations organizing expectations about behaviors and roles in

real life experiences. Previous findings identify a relationship between the child's understanding-and use in the narratives- of a variety of emotion regulation strategies on the one hand and the ability to manage emotions in real life contexts on the other (Sala, Pons & Molina, 2014 p3)." The results indicated that boys used more behavior strategies and girls used more social support, which corresponds to previous findings in that behavioral strategies correspond to problem focused strategies and social support corresponds to seeking social support. This might be due to differences in the ways boys and girls are socialized in that parents foster sociality in girls and autonomy in males. The long-term effects of this should be further studied. Social support was the only variable that didn't change with age and the authors believe it has to do with the story presented in the SIRE and how the protagonist had social support (Sala, et al., 2014). And, trusting in social partners is a component of attachment security, so it would be interesting to study how seeking social support relate to other variables such as attachment security.

Additionally, TEC scores (Emotion Comprehension) correlated weakly with cognitive reappraisal (Sala, et al., 2014). IQ was the factor contributing to higher use of cognitive reappraisal which goes against what the literature says about emotion comprehension being important in children's ability to modulate emotions. A larger sample to test this better would be valuable. PPVT correlated with social support in the 3-4 group but with behavioral strategies in the older group. This suggests that the SIRE scores relate to different aspects of verbal ability depending on the age of the child. So, within the younger group, the more linguistically competent children the higher the number of responses in social support (Bettis, et al., 2016). And, within the older group the behavioral strategies were more. Only higher IQ older children used cognitive reappraisal more, so IQ is the discriminating variable (Sala, et al., 2014). What

this means is that verbal abilities and cognitive development in preschool influences emotion regulation. Furthermore, age differences in the use of cognitive reappraisal in children's answers is related to the development of cognitive abilities and not just age as seen by the results of the correlations between the non-verbal intelligence test and cognitive reappraisal (Rodriguez, et. al., 2016) since cognitive reappraisal is a more complex form of emotion regulation.

Cole, et al. (2008) have demonstrated the relationship between maternal socialization, age and verbal skills in the generation and recognizing of coping strategies. It also linked emotional understanding with actual emotional strategies children put into practice. It is important to underline that, much like in this thesis, family income is relatively high, so it did not interact with any of the variables of this study. Nevertheless, for the anger scenario presented to the children there was a significant correlation with Mean Length of Utterance (MLU) but not so much with age indicating that strategy generation for this emotion has more to do with verbal skills and not age. But, for recognizing strategies in dealing with anger there was a stronger correlation with age in the sense that the older the child was the more strategies he or she recognized while MLU was not significantly correlated (Cole, et al., 2008). For sadness there was no significant correlations in the beforementioned study.

The authors then took all of the results of the preliminary analyses and compared them to see which predicted child self-regulation better. It was shown that the more strategy for recognizing anger and sadness the more support seeking, the more persistent the child will be and the more alternative problem solutions to problem solve the child demonstrated (Cole, et al., 2008). This means that the more aware the child is of coping strategies the more behaviorally and socially adapted that child will be. Children's emotion understanding is evolving at this age along with other developmental factors that influence each other such as verbal skills (Santucci,

et al., 2015). Moreover, Cole, et al. (2008) found that a child's expressive language skill and complexity of their spontaneous speech predicted strategy generation but not strategy recognition. This can be due to the fact the more developed the child is in their language skills the easier it will be for him or her to come up with appropriate coping solutions in different situations. This was seen in this research project. There is a statistically significant positive correlation between the VPK Oral Language scores and children's emotion focused coping. There is also a statistically significant negative correlation between the VPK Oral Language scores and children's problem focused coping.

Additionally, Cole, et al. (2008) understand that child temperament influences how a child copes and they suggest that highly reactive children will have more opportunities to practice self-regulation skills but that these children are also less likely to notice the learning opportunity when it arises due to their own anger or frustration. No significant relation was found in this thesis with this sample, but further studies on how child temperament influences coping need to be performed. The authors also accounted for gender in their study and acknowledge that there is evidence that girls are more emotionally aware than boys perhaps due to different socialization, but there is a lack of understanding on which strategies girls prefer over boys and vice versa and their level of understanding of said strategies (Cole, et al., 2008). Also, it was interesting to read that predicting self-distraction was only negatively related to children who generated high sadness recognition strategies, meaning the child who scores high on sadness is also less likely to generate self-distracting strategies. This is important for future studies in preventing behavioral disorders in high risk youths since there was also a higher prediction on disruptive behavior the higher the sadness strategy recognition and generation strategies was (Jobe-Shields, et al., 2015).

The difference found in the fact that older children recognized and understand anger better than sadness can be explained by the difference in these two emotions. Sadness involves letting go of goals and control whereas anger means reacting forcefully to regain control (Chalmers & Deans, 2011). Future research would have to seek to find out more about the different emotions taking place when a child is trying to manage between the emotions of sadness and anger. "The fact that children can have multiple, different emotions in response to a challenge, and that age and language relate to strategy understanding for anger but not sadness, is therefore worthy of further pursuit (Cole, et al., 2008, p 3)." Once again, this thesis' lack of statistically significant results might be due to the age of the sample which is still very young.

Children vary their coping strategy as a function of the situation they are facing. In the study by Band and Weisz (1988), the situations that evoked the most primary control coping were loss/separation, peer difficulty, and school failure, which leads the authors to believe it is because these situations the children perceived to have more control over. Medical stressors yielded higher secondary control coping approaches probably since these situations were less familiar, which led them to think they had less control over them (Sposito, et al., 2014). The six and seven-year old children used both strategies equally, but secondary coping increased in frequency with increased age. Controllability of the situation could explain why primary coping was used more with younger children, but another possibility might be the fact that people prefer to use primary coping first because it is innate and makes more sense to change the situation one is in before changing how one feels about the situation (Valentine, Buchanan & Knibb, 2010). Thus, the use of secondary coping comes only after the failure of some primary coping methods as a way of managing or controlling the situation when other alternatives have failed (Band & Weisz, 1988). Also, the ways-of-coping categories need to be considered when analyzing these

studies because problem solving and problem- focused aggression increases with age (Jones & Pierce, 2017). This tells us that primary and secondary coping approaches need to be complemented by other coping models to explain differences in situational and developmental discrepancies. Moreover, future research needs to focus on underlying coping processes that cannot be measured by self-report accounts such as the ones used in their study. In this thesis the situations were only the ones shown in the cards which might have affected our results.

Avoidance coping strategies need also be examined from the point of view of their adaptiveness which Kochenderfer-Ladd and Skinner (2002) argue that it has to do with the type of stressful situation encountered and the frequency of that situation happening to that child. For example, problem solving and seeking social support had negative effects when the child was victimized often and positive effects when the child as victimized infrequently. This is because problem solving techniques are effective when the stressor is deemed as controllable by the child (Karreman, et al., 2006). This is important because with the findings from bullied children we can see that there is no good or bad way of coping. Being bullied is an uncontrollable situation and adopting a problem or approach technique will have negative consequences for the child. But it will have negative consequences for the child who is victimized often (Anders, et al., 2016). The child who is not victimized often appears to interpret this bullying situation as controllable and the child victimized often is interpreting this as an uncontrollable situation. For example, internalizing as a coping strategy maybe adaptive for children who are not victimized often because it can give them time to reflect if they are causing the situation or come up with solutions to stop or avoid being a victim. But if the child is severely victimized, internalizing may inhibit healthier ways of coping such as seeking social support (Compas, et al., 2014).

Socialization differences will not impact this type of situation in the future. This thesis did not include this type of population affecting negatively the results.

In this present dissertation we showed the children nine situation cards which can be classified as controllable or uncontrollable situations. Some of the situations can be interpreted as controllable and uncontrollable at the same time such as being bullied. For the purpose of creating an assessment tool and teaching material, investigators need to look at this factor more closely especially since it is a very young age we are working with where events are interpreted very differently than at an adolescent or young adult stage. For the bullying card we see more emotion focused answers from both boys and girls since there is no known incidence of peer victimization in the sample chosen. In other words, they are all under the same stress category when it comes to being bullied. Although, the problem with this is that we do not know the situation at home. There might be family dynamics that make the child feel like he is being bullied such as by a sibling, cousin or parent, for example, who unintentionally treats the child in a way that he or she perceives to be bullied. Nevertheless, in this dissertation it was found that being bullied as in other situations of this tool, there was no statistically significant correlation between the preferred coping mechanism and the gender of the child.

Temperament approaches are useful to explain general lines of psychopathology such as anxiety but do not explain specific kinds such as social anxiety, or the different kinds of phobias. Regarding the study of coping, temperament approaches give more importance to the anticipatory phase of coping through planning (Derryberry, Reed & Pilkenton-Taylor, 2003). For example, a defensive system will try to minimize danger by activating the fear and relief outcomes and will select specific behaviors that will guide the child towards that end. However, the anxious child (defensive system) needs the impulse (appetitive system) to put in place the

coping plan or might end up with ruminative behaviors (Santucci, et al., 2015). Coping will also be shaped by the "can" and "should" appraisals each child makes that has been shaped by his or her environment. The "should" can be explained by cultural norms and the "can" can be explained by the child's perception of controllability of the situation. Another important temperament effect on the coping mechanism the child chooses has to do with the perceived competence he or she feels he has to cause actual change in a specific situation (Derryberry, Reed & Pilkenton-Taylor, 2003). Also, future models of temperament will need to incorporate a variety of additional regulatory systems such as hormonal processes and parasympathetic activity for a more complete view of the underlying coping mechanisms.

With increasing age or cognitive maturity, disease knowledge is markedly more important in determining medical adjustment (Sposito, et al., 2014). It was assumed that with age, disease management worsened but this is only for children who are not cognitively mature to manage their diabetes without parent supervision since greater disease knowledge yielded greater adjustment. Furthermore, primary coping style was associated with better adjustment, i.e. "the better control I have of taking my medicine, the better I feel about my disease". Formal operational children also described a subset of the secondary coping strategy that most likely contributed to maladjustment because it undermines primary coping strategy such as telling themselves "I don't care about any of it". For pre-formal children, perceived control predicted better adjustment (Andres, et al., 2016). Nevertheless, the negative correlation between perceived efficacy and conduct problems in the formal operational group might be explained by the fact that the more disease knowledge and maturity the child has the more helpless he feels since he is realizing this disease is lifelong and sometimes there is little he or she can do to change the circumstances. Therefore, the relationship between the psychosocial and

developmental processes in children facing the stress of a chronic disease needs to be further studied to determine how cognitive development impacts adaptation. The lack of cognitive maturity in our sample might have affected the results of our thesis project.

Additionally, cognitive maturity can be seen to affect the way children responded to one of the situation cards in our tool. There might be a problem with Fear of the Dark situation card due to the fact that this scenario can be interpreted as uncontrollable by the child because there is a lightning storm outside the window, so the dark seems to be coming from a power outage and not the mere fact that someone turned off the lights. In other words, the darkness was created by an external source the child has no control over and thus, should yield answers or coping styles that are more emotion focused, which was not the case in this thesis project. One possible problem with this situation card is that the child in the picture seems to be more afraid of the lightning than the dark because the child in the picture is looking outside directly at the lightning. It is expected that since this is a seemingly uncontrollable situation, the children will choose more emotion focused answers such as crying or worrying. Most children chose hiding under the bed, which is helpful when creating intervention and prevention programs and could explain why it did not result in a statistically significant difference between boys and girls. Also, the lack of statistically significant differences could be due to the interpretation of controllability of this situation, which seems to have more of an impact as the child grows older and is cognitively more mature to be able to judge these situations correctly. We also need to take into consideration that some children are cognitively more mature and understand some situations as controllable while other children might judge the same situation as uncontrollable due to past experiences or lack of experiences in which the child might have learned the controllability of a given situation.

The study by Boo and Wicherts, (2009) found no significant differences in age in the cognitive and behavioral coping strategies in children possibly due to the small age range of the study. Sex differences were found such as the fact that girls make less use of problem solving than boys which was contradictory to recent studies. The study also found that girls employed more support for feelings than boys, which is in line with previous findings. The study found that girls (mean age 10.4 years) use more distracting and more wishful thinking than boys. Previous studies found that older girls (12 and 13 years of age) used less distracting than older girls and attribute hits to a decrease in adaptive coping strategies (Wadsworth, 2015). Some have argued that gender differences before the onset of puberty play an important role in the prevalence of depression in adolescence (de Minzi & Iglesias, 2013). Our thesis project used a much younger sample which can account for lack of differentiation in coping mechanisms found. Our thesis project found no differences and a possible explanation is that society is changing and every day we see boys being socialized in the same manner as girls in the sense that they both have the same responsibilities and standards to achieve in the house and in school and the way they cope will be similar for boys and girls.

The study's hypothesis of socially competent children making more use of active problem solving and support seeking was partly confirmed in the above-mentioned study. Pro social behavior was significant and positively correlated to the coping dimensions of direct problem solving and positive cognitive restructuring, and less to distraction and avoidance (Boo & Wicherts, 2009). So, there was a significant correlation between socially inadequate behavior and avoidance coping but what was unexpected was a correlation between avoidance coping and prosocial behavior and all the coping dimensions significantly positively correlated to pro social behavior. The authors argue that this might be due to the fact that social children make use of a

wider range of coping strategies (Boo & Wicherts, 2009). This sheds further light that not all coping strategies are inadequate. They need to be judged based on the situation and the individual characteristics of the person. For example, studies have found that Avoidance in boys who are not frequently harassed resulted in less risk of developing anxiety disorders than in boys who were frequently harassed in peer conflicts (Valentine, et al., 2010).

Children's effortful stress reactions (coping responses) are a combination of cognitive and behavioral coping (Boo & Wicherts, 2009). Adding the separate Positive Cognitive Restructuring dimension indicated that cognitive and behavioral coping could be distinguished in children's coping strategies. This finding enables researchers to study cognitive and behavioral strategies separately and their relationship to psychological symptoms. For therapists this is important because they can assess which cognitive strategies are inadequate and create interventions directed at improving or developing alternate strategies to coping (Jones, et al., 2017).

In the study by Kochenderfer-Ladd and Skinner (2001) on peer victimization and the effects it has on children they found that it is not the fact that kids are being bullied that affects them psychologically but the effectiveness of how they handle and interpret such situations. Thus, bullying as a risk factor is dependent on the coping strategies used by the child (Kochenderfer-Ladd & Skinner, 2001). These authors began introducing the idea of there being a third conceptual classification to the approach and avoidance coping strategies. This is because they say that problem solving and seeking social support were seen as approach coping because it requires the person to cognitively and behaviorally approach the situation to solve it. But there needs to be a distinction between the approach strategies that require the person to rely on him or herself such as problem solving and the strategy that requires others to get involved as much as

in seeking social support. This is because research has found that girls and boys differ quiet often in these strategies. Girls are seen to be more support seekers than boys, which is probably due to the socialization of the child (Graham, et al., 2015). Boys are usually raised to be independent and not ask for help or support. Consequently, when analyzing these strategies, we cannot group approach strategies into the same domain for example when we are trying to analyze differences in gender and coping strategies. But, this study also used an older sample than ours so this needs to be replicated with preschool age children.

Using a three-dimensional model such as the one used in the study by Hampel and Petermann (2005) will likely clarify inconsistencies found in previous studies since it is a more complete operationalization of the concept of coping in children. Nonetheless, there needs to be an agreement across studies on the concept of adaptive coping, which this paper divided into emotion-focused and problem-focused, to be able find more consistent results. Also, passive avoidance was tested using behavioral avoidant items, e.g. “I’d like to stay in bed” (Hampel & Petermann, 2005). There needs to be more research done using cognitive avoidant items, e.g. “I pretend it didn’t happen”, together with behavioral items to better assess developmental differences in this dimension since it is a dimension in which girls have a markedly superior score. Also, increases in the “support seeking” strategy by girls clues us in on the need to make help more available for children in school settings, for example (Karreman, et al., 2006). Knowing that “minimization” and “distraction” decreased and “rumination” and “resignation” increased in girls, and “aggression” increased in boys, we can come up with better gender-specific cognitive behavioral intervention and prevention strategies because we will know that girls are prone to internalizing behavioral problems and boys to externalizing behavioral problems (Yeo, et al., 2014).

Avoidant coping was most often used by the younger children for the social argument situation within the study "Gender Differences in Coping Strategies in Children and Adolescents" by Eschenbeck, Kohlmann and Lohaus, (2007). For the academic stressor situation adolescents sore higher on avoidant items. It is important to note that the items for avoidant coping were cognitive avoidant e.g., "I tell myself it doesn't matter" as opposed to using behavioral coping questions such as "I will stay in bed all day". Future studies should include both types of avoidant coping questions to get a more complete view of this strategy. The authors believe, in line with previous findings, that emotion focused strategies were more often used in social stressor situations as opposed to academic stressors because social stressors are seen as less controllable than academic ones. Nonetheless Eschenbeck, Kohlmann and Lohaus, (2007) add that not only is controllability an issue but how relevant the child deems the situation to be and if the child finds the situation more important than he will be more willing to engage in a coping plan. Additionally, girls are also more likely to use avoidant coping in social situations which points to the fact that social situations along with gender, controllability and significance of the situation affect coping efforts (Gulliforfd, et al., 2015).

An interesting finding in our thesis project related to controllability is with the Getting Hurt situation card. The situation card Getting Hurt is one of those situations that needs to be worked on with the Emotions with Emojis Lesson introduced by the researcher since it is a situation that is controllable and should elicit more problem focused techniques. Children need to be taught handle these types of situations in a more adaptive manner to be able to produce mentally healthier adults. If a child learns early on that having an accident is something that you can have control over in the sense that the accident happens to everyone but by taking certain measures such as being more careful in the same situations you can avoid certain things. This

gives the child a sense of control which will carry over in the future and if, for example, this child as an adult has a car accident, that child will response by simply stating that he or she needs to be more careful. If this child does not learn this early on that child will grow up to interpreting the accident as a lack of intelligence or luck and subsequently get depressed about it or anxious about getting into cars and driving. It was interesting to note that a lot of the children chose the coping response "Helping Others" which depicts a child putting a band-aid on another because they did not interpret the coping card as the creator f the tool intended it. This is something that needs to be further researched since this tool seems to have a culturally biased interpretation by the children. The children sampled to generate these coping cards tool might have interpreted that scenario as helping another but the sample we worked with in this project did not see it in the same manner. They consistently chose this coping card as a response to the Getting Hurt situation.

The goals of the study by Halpern (2004) were to analyze children's coping strategies in different situations, the relationship between coping and problem behaviors and the regulating effects of coping between family environment and children's problem behaviors. The results indicate that children's coping can be assessed via self-reports measures and that children's responses to stressful situations was associated with mother's reports of child problem behaviors (Halpern, 2004). The results indicate a regulating effect between family environment and child adjustment. Also, that there is a relation between children's responses of coping strategies and mother's reports of problem behaviors. As in other studies with older children, preschoolers who used more problem coping approach to stressors had lower internalizing and externalizing scores (Duckworth & Schoon, 2010). Children who used non coping strategies had higher internalizing

scores. This indicates that for preschoolers it is important to use a coping strategy instead of just venting or not having any strategy at all.

For example, we can teach coping strategies easily using the Separation from Parent situation card. This situation is a very common one universally since all children are left in school and separated from parents because parents need to go to work. The earlier the child learns to handle this situation the easier he or she will handle similar situations. This situation is something that can be managed by the teacher, but it is a result form the parenting practices of the parent. This has to do with attachment theory and the attachment patterns by the child. The insecurely attached child will have higher emotional responses that are not adaptive when faced with this situation. It is important to note here that we are not saying that emotion focused responses are always maladaptive. Some emotion focused responses can be adaptive in the sense that they have served as an evolutionary tool ensuring the survival of our species. Crying when left alone ensures that the mother will not leave the child behind which goes back to the above situation of Trying Something New. It is a survival instinct that is hard wired into our brains and directly stemming from the amygdala. Knowing this can help us understand and be more patient with children and use techniques that will help the child's adaptive response. As educators and professionals in the field we cannot change the attachment style of the child nor the child rearing practices of the parents, but we can use this information to help the child cope with the situation in a healthier manner as well as help parents form healthier attachment patterns by elaborating parent workshops to educate and inform parents.

There was a partial relation between family environment and problem behavior scores in the Halpern study. Preschoolers from families with lower expressiveness and cohesiveness had greater incidence of problem behaviors. Lower family cohesion correlated with more

internalizing problems but only for children with low total coping scores (Halpern, 2004). Furthermore, children who showed increased coping efforts and were from a family low in cohesiveness did not show internalizing problems. Moreover, family conflict and adjustment had a more complex relationship other than family expressiveness correlating with behavior problems. Children with low levels of total coping efforts had greater externalizing problem behaviors regardless of degree of family conflict in the Halpern (2004) study.

Children's use of passive acceptance, problem avoidance and problem approach varied depending on the type of stressor, but problem approach was used more often (Halpern, 2004). With regards to passive acceptance for example, problem approach was less favored in the parent-child conflict only. This might be due to the fact that compared to all the other stressor situation (mastery separation from parent, peer conflict) the parent-child conflict is the only that children deem uncontrollable so they resort to a maladaptive strategy as seen in other studies where children would use more emotion focused strategies in situations they could not control. In the peer situation children used equal amounts of problem approach and emotion venting. There were also some developmental implications in that the older the preschooler the less venting and the more problem approach coping strategies used. But there was no relation to the cognitive-language abilities just the age suggesting there might be a developmentally more complex answer in the reason for the employment of the different coping strategies preschoolers engage in (Halpern, 2004).

It is important for parents and clinicians to know that children who could not come up with any strategy to cope had higher internalizing scores irrespective of family, age or scores on the CBCL. Notwithstanding, a family in which emotions are expressed affords the child an environment full of opportunities to express himself and manage positive and negative emotion.

It will also expose the child to positive feelings which gives them a sense of security and confidence (Halpern, 2004). Also, family cohesiveness correlated with less externalizing problems which suggests that families that support each other have a better chance of raising kids with less disruptive and negative behaviors. Low cohesiveness in families with children who showed high increased coping efforts did not show increased internalizing or externalizing problems proving that children's coping skills can be a beneficial protective factor for children who are at risk or vulnerable for depression or anxiety.

Children with low levels of total coping efforts had greater externalizing problem behaviors irrespective of degree of family conflict, which underscores the importance of teaching positive coping skills even to children who are in optimal family environments. Results from their study also indicated that if the level of family conflict is high, having high coping efforts is not sufficient since these children scored high in behavioral problems (Halpern, 2004). So, family conflict may be a deteriorating factor for these children's scoping skills. This means that parents and professionals cannot assume that children who are more resilient will stay this way in a poor family environment. Thus, since family expressiveness also correlates with behavioral problems, families need to be aware of the degree of both conflict and expressiveness because they both contribute to higher levels of externalizing problems and will be worse even for children with limited coping skills.

In the peer situation children used equal amounts of problem approach and emotion venting which means that the children that use the venting more will be labeled as having externalizing problems such as attention deficit with hyperactivity disorder or oppositional conduct disorder by parents and teachers, which is something that parents and teachers need to keep in mind so they don't mislabel behaviorally and emotionally adaptive children. Also, the

fact that it was found that problem approach strategies increased with age means teachers need to teach children first to manage their emotions (venting coping response) before they can teach them problem approach strategies (Cappa, et al., 2011). It is interesting to note that this study's findings that children used both problem approach and emotion venting to peer conflict is at odds with other studies because it can be explained by the lack of options in the tools used to resolve peer conflict in the other studies. The discrepancy with our thesis is that Halpern (2004) used an approach/avoidance of situation response instead of an emotion or prole focused response. Also, their study included 5 and 6 year olds and defined them preschool age. Our thesis defined preschool as four year olds only.

The results in the age differences part of the study has implications for parents and teachers to learn not to treat all preschoolers as one group with similar characteristics (Anders & Ebert, 2012). They differ in that the more behaviorally competent the child is the more adaptive coping strategies he or she will use based in this study's findings. And, since this happens with increasing age, there is a connection with the child's regulatory system since this system changes as the child matures. Additionally, boys have been found to have higher externalizing scores which means they might utilize coping methods differently in the real world even though the results indicated that there was no difference in coping responses between boys and girls (Santucci, et al., 2015). In other words, boys and girls had similar coping response results but the way they might go about using these strategies might be different in that girls might speak to an adult about a problem and boys might want to play with blocks to distract themselves. Both are adaptive coping responses, but different actions are involved in each.

In the parent-child conflict situation children chose more passive acceptance than problem approach coping maybe since this is a less controllable situation as other research

studies have suggested in the past. Perceived controllability is a topic that needs to be further researched. But this might also be due to the fact that as children mature cognitively, they accept certain forms of behavioral norms imposed by their parents. There needs to be more research on how children evolve and mature in their coping skills, such as an increased in negotiating skills' repertoire, and how do patterns of coping vary with regards to the different elements in a family such as siblings and their level of closeness to these other elements (Frydenberg, et al., 2017). This can be accomplished using longitudinal studies in future research efforts. This will answer how adaptive children's responses are and what purposes do they fulfill because passive acceptance might be beneficial in a parent-child conflict in which the child knows he will not win the argument but may be very harmful if the situation is that the child is lost on a store.

There are many parenting programs but not many that have been evaluated by a mixed methods approach and even less the universal parenting programs, which are the ones aimed at the general population and not just the clinical population such as the one studied here by Gulliford, Deans, Frydenberg, and Liang (2015). This evaluation of this parenting program was special also because it is a program with a behavioral and social focus, and it has a comprehensive emphasis on parent and child coping. Parent involvement is vital since research has demonstrated that children learn to cope from observing their parents since they are very young. This parenting program overtly identifies parent coping as a core tenet in prevention efforts and explicitly addresses parent and child coping (Gulliford, et al., 2015). Nevertheless, there was no significant change in parents' rating of children's coping and wellbeing, but there was an increase in children's coping and behavior. This might be due to the fact that coping and wellbeing need more time for skills to transfer from parents to children. It is also important to note that the authors expressed concerns about the reasons the coping strategies that happened to

improve and why. They need to determine if the coping strategies that improved are those construed as easiest to change or regarded as more important to individuals (Gulliford, et al., 2015). They also agree that the study needs a more diverse sample socioeconomically, culturally and linguistically with multiple informants that might make the study more complete. Having a control group, larger sample, follow up data to see if results are maintained or changed in any way would also improve the quality of the study.

The results of the study "Prevalence of Strategies for coping with Daily stress in Children" saw, in the area of health, that the prevailing strategy was Other strategy "keeping the problem to oneself" and "concealing the problem", followed by the Passivity strategy and Active Solution as the least used of the coping strategies (Rodriguez, et al., 2016). In the School context the most used was the Active Solution followed by Search for Information and least was Passivity. In the family context the most used was Active Solution, followed by Emotion Strategy and the least used was Passivity. Furthermore, regardless of the context, the most used was Active solution, followed by Emotion Strategy and the least used was Behavioral Avoidance (Morales, et al., 2016). In the area of Health, the most used strategies such as concealing the problem and passivity correspond to Emotion focused strategies or secondary coping strategies as proposed by other authors (Rodriguez, et al., 2016). This is because in the area of health children perceive they have less control of the situation and this is the strategy most widely used when the child feels he or she has no control. In the area of school and family we see a lot of Active solution which corresponds to problem focused strategies because it is an area in which children feel they have control of the situation. Moreover, behavioral avoidance is the least used strategy probably due to the older age of this sample (Rodriguez, et.al, 2016).

The four situations studied by Morales and Trianes (2010), are Family, School, Peer Interaction and Health. They used the BASC which is divided into *Daily Stress, School Maladjustment, Clinical Maladjustment, Personal Adaptation, Emotional Symptoms.* The ESAN is another tool they used that is divided into four distinct coping strategies which are *Active Solution, Unproductive Coping, Avoidant Coping and Emotional Coping.* Additionally, they used the IIEC and found that the correlations between the IIEC and the ESAN with regards to the Parents situation has no significant correlations. In the Medical and School Grades situation the stress in the IIEC correlates with Unproductive Coping and School Grades with Avoidant Coping. In the Peer situation it is negatively correlated with Problem Solution. So, the more stress the child experiences in medical type situations the more unproductive coping strategies the child will use (Jobe-Shields, et al., 2015). And, the more stress the child experiences in the School Grades situation, the more avoidant coping the child will resort to. When it comes to Peer situations the results indicate the child will resort to less problem solution strategies, but this study used an older sample than the one we used in this thesis.

The results indicate that Clinical Maladjustment correlates with Unproductive Coping in three situations which are School, Peers and Health but not Family. It also correlates with Avoidant Coping in Family, School and Peers but not Health. Emotional Coping it correlates with Family and Health situations. This means that the children that with Clinical Maladjustment lean towards using unproductive coping strategies in situations of stress related with health, school problems and problems with peers (Morales & Trianes, 2010). This child will likely also use avoidant coping in problems related with peers, school and family. Even though the age of their sample was older we can use this information to create teaching tools that will help children chose better and ore adaptive coping mechanisms.

Also, research indicates that School Maladjustment correlates with Unproductive Coping in all situations and with Avoidant Coping in all situations except Health (Sposito, et al., 2014). This indicates that not having adaptive coping mechanisms in family, school, health and peer related issues leads to school maladjustment. Also, the higher the score on School Adjustment the lower the expected score on Emotion Coping when it comes to School and Peer related problems. This is a positive finding since it has been found that higher scores on emotion focused coping when dealing with school situations leads to greater behavioral and social problems, but not in this study. Lastly, School Maladjustment scores is negatively correlated to problem focused coping demonstrating that, for children, in the school context it is valuable to have problem focused coping strategies with peers and not compatible with being judged to have school related problems (Morales & Trianes, 2010).

The results for the Emotional Symptoms do not correlate very strongly with any of the dimensions of the ESAN. In Unproductive Coping there is no correlation with the Family situation, Avoidant is not correlated in the Health and Peers situations either, and Emotional Coping only correlates with the Health situation. This means that children approach health, school and peer situations with high Emotional Symptoms scores on the BASC, but in family situations they prefer Avoidant coping, which might mean a type of escapism (Morales & Trianes, 2010). Furthermore, Personal Adaptation and Active Solution correlate with all four situations. Our study did not include any health situations in the Situation cards materials.

This study is unique in that it uses the ESAN, which evaluates coping strategies in everyday situations which has generated different results depending the context in which it was evaluated. This is useful for the therapist and educator in creating programs to teach how identify and use specific coping skills in specific situations in which they would be more adaptive. The

authors also believe it would be useful to asses longitudinally the change that occurs in adaptive and maladaptive coping strategies from childhood to adolescence (Morales & Trianes, 2010). With regards to this thesis, this study is important because it gives a unique perspective regarding methods used to evaluate coping strategies in children. There are minimal studies using more than one method to assess the level of psychological adjustment in children with regards to their preferred coping strategy (Morales & Trianes, 2010). Notwithstanding, it is important to note that this study underscores the fact that teaching adaptive coping methods to children who are stressed is much more difficult than children who are not. It would be important to repeat this study with the clinical population in which children are already suffering social and behavioral problems.

An unexpected finding that laid the groundwork for future research in coping, in the study by Compas, Malcarne and Fondacaro, (1988) was that there was a significant correlation between emotional/behavioral problems and coping with social stressors but not academic stressors. This is not consistent with previous findings but can be explained by the degree of importance this sample placed on social stressors at the time of the study, which is something that needs to be carefully looked into on future similar studies. Another similar finding was that youngsters who were better at generating more problem focused strategies experienced less adjustment problems (Compas, et al., 2014). However, the number of emotion focused strategies generated and used was positively related with adjustment problems, which leads the authors to clarify that emotion focused strategies are not inherently bad, it is just that the ones generated by the subjects were maladaptive ones (Compas, et. al, 2014). What this means is that adaptive coping strategies can be taught and need to be taught early on to children to avoid behavioral problems since problem focused strategies are already better developed than emotion

focused strategies in these age groups. The fact that the emotion focused alternatives generated were mostly maladaptive means this is a skill that needs to be taught especially to girls who are at higher risk, based on the findings, on developing behavioral problems. There also needs to be longitudinal studies to understand how and when these strategies are learned to be able to use preventive strategies since coping serves as a risk or protective factor for future behavioral and emotional problems. Moreover, there needs to be a better classification of maladaptive and adaptive emotion focused solutions since the emotion focused solution is always related to behavioral problems. There needs to be a clearer picture of which emotion focused strategies, specifically, are the ones creating these behavioral problems which can be done by improving these open format tools when it comes to classifying items that can fit into both problem and emotion focused classifications such as "talked about the problem with a friend".

Children are able to regulate their emotions and behavior. They are also able to demonstrate emotional knowledge of others. They are able to regulate the source of emotional stress in situations they can control (Chalmers, Frydenberg & Deans, 2011). They are also able to report a range of coping strategies. They can describe their coping efforts and they can evaluate the efficiency of those efforts (Chalmers, et al., 2011). Contrary to the literature that states children's secondary control strategy are maladaptive, this study proved children also used adaptive secondary strategies such as positive self-talk and self-calming strategies. By 4 years of age children have already developed productive and nonproductive ways of dealing with stress which means this should be included as part as a preventive program to help children learn or unlearn coping strategies since children are continuously developing these skills through their life cycle. We could not see differences in this age group's preferred coping mechanism but that does not mean we cannot start teaching coping skills.

Also, 3 out of 4 children in this study were not dealing well with separation anxiety (Chalmers, et al., 2011). They would benefit from an intervention program specifically aimed at teaching them effective ways of coping with this stressor. Some children had several ways of dealing with a stressor while others did not. This is useful because peers can help in teaching coping mechanisms and thus can be used as a group activity in which some children will teach others how to react in certain situations. In the situation in which children could control what to do they chose approach strategies and the authors believe that this might be culturally influenced since not doing anything is frowned upon by cultural norms (Chalmers, et al., 2011). Moreover, these coping cards can be adapted to other cultures and settings and used as a teaching tool in the classroom to practice effective ways to deal with stressful situations. The fact that some situations did not elicit much of a response from children such as the choice scenario but others did means the focus of future interventions should be aimed at either creating a situation card that is clearer for children to understand, if this was the issue, or at working with the situations that did create a bigger reaction. Also, a larger, more culturally diverse sample would be better. Observing children in real life situations instead of interviewing them only would also yield more accurate results of children's coping styles.

"Parenting and Self Regulation in Preschoolers Metanalysis" results from the studies analyzed from the past 20 years showed that the way parents discipline their children affects their self-regulatory capacities. There are three types of parenting analyzed within this study. Positive control which is giving the child clear guidance, some power assertive comments, and the setting of limits resulted in a positive correlation with self-regulated behaviors (Karreman, et al., 2006). Coercive behaviors, criticism, and even hostility is defined as negative control and was found to be negatively related to self-regulated behaviors. Even though the authors'

hypothesis were confirmed, it is strange that responsiveness control which is parenting with positive affect, warm and sensitive talking, was not significantly related to self-regulated behaviors. We can use this study to tailor parenting workshops that can be part of the Emotions with Emojis lesson created for this thesis.

Karreman, et al. (2006), also studied the relationship between the categories of self-regulation (compliance, inhibition, and emotion regulation) with parenting, but left out responsiveness because there was no significant variation in effect for this type of parenting. Compliance was found to be negatively related to negative parenting and positively related to positive parenting which the other two categories of self-regulation were found to have not significant effect (Karreman, et al., 2006). Compliance might have been associated with parenting practices because it is a construct that can be thought of as a predecessor of self-regulation and the other two categories can be thought of as more of an internalized self-regulation which is something that naturally happens with age. In other words, developmentally advanced children might show a stronger connection between inhibition and emotion regulation in a study such as this one because it is something that is being refined as the child matures (Cracco, et al., 2015). Moreover, more variation is needed in future studies to study the relation of parenting with self-regulation taking into account age, gender and social-economic status.

The fact that he first dimension that was identified in the study by Yeo, Frydenberg, Northam and Deans, (2014) includes both problem focused and emotion focused as well as primary and secondary coping strategies means that these adult coping dimensions cannot be used with children. This also means there is a developmental component to the concept of coping since children learn to use and distinguish between these two types of coping as they mature cognitively (Yeo, et al., 2014). What is important is that findings suggest maladaptive forms of

coping can be seen early on in childhood, which is very useful in developing interventions in the clinical setting and a good reason to add a positive coping technique component in social emotional curriculums in preschools. Interventions programs may need to include a specific focus on increasing preschoolers' repertoire of positive coping behaviors using both problem and emotion focused strategies. For anxious children it would need to be promoted in the context of exposure therapy. Nevertheless, controllability needs to be better operationalized to further test this hypothesis. Also, how coping develops with cognitive maturation and what dimensions derived need to be replicated in another study using a more diverse population using confirmatory analysis will aid in expanding the field's body of knowledge. The authors also suggest researching Longitudinally to answer the question if anxiety and maladaptive coping is in fact bidirectional, and using clinically anxious children, assess if there is a difference in the negative coping they use as defined here (Yeo, et al., 2014).

The study Bidirectional relationships between parenting stress and child coping competence's hypotheses were confirmed in that there is a bidirectional relationship between parenting stress and child coping competence among preschool age children. All three coping subscales were significantly associated with parenting stress, as well as child disruptive behavior. Thus, parenting stress significantly predicted social, achievement, and affective competence across all three time points (Cappa, et al., 2011). Moreover, results demonstrated that overall child coping competence significantly predicted parenting stress. Additionally, results indicated that child social, achievement and affective competence significantly predicted parenting stress across all three time points (Cappa, et al., 2011). The results also indicated that the higher the scores on disruptive behavior the higher the parenting stress, but this may be cyclical in that the higher the parenting stress the higher the disruptive behavior will be, which in turn causes more

parenting stress. Also, it is important to highlight that although this is a longitudinal study which was highly needed it was limited to African American and European American families from a high-risk population. Nevertheless, it adds important information to the study of child coping in that we need to take into consideration the role parents play in children's socialization and later behavioral and social health risk factors.

Chapter II Summary

Parents and Children's Coping: Building Resilience and Wellbeing in the Early Years, by Frydenberg, Deans & Liang, (2017), proved very useful for this project since this thesis used the same age group as was used in that study, which was composed of preschool age children and from a similar culturally and linguistically diverse population as well. This thesis project used a version of Frydenberg's Coping Cards as an assessment tool to determine preschool age children's preferred coping mechanism. Moreover, using different tools such as the Ages and Stages Questionnaire, a parental demographics questionnaire and the Voluntary Prekindergarten Assessment we tested to see if there were differences in coping mechanisms in preschool age children with relation to their cognitive and social emotional level taking into account their gender and their parents' level of schooling.

After discussing the results of all of the research included in this thesis, we proceeded to test the objectives and include the results afterwards. The objectives were: Verify if there are differences between coping mechanism and gender. Verify if there the differences of coping mechanisms and parents' level of schooling. Substantiate if there is a relation between children's coping mechanism and parents' level of schooling. Test if there is a relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the

Voluntary Prekindergarten questionnaire with regards to the Mathematical Measure. Test if there is a relation between children's preferred coping mechanisms and children's cognitive abilities as assessed through the Voluntary Prekindergarten questionnaire with regards to the Oral Language and Vocabulary Measure. Test if there is a relation between coping mechanism and social emotional performance as assessed through the Ages and Stages Social Emotional Questionnaire Score. Verify if there is a relation between coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Problem Solving Measure. Corroborate if there is a relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Communication Measure. Test if there is a relation of coping mechanism and developmental performance as assessed through the Ages and Stages Questionnaire with regards to the Personal Social Measure.

Recommendations

The fact that some situations did not elicit much of a response from children such as the 'choice' scenario but others did means the focus of future interventions should be aimed at either creating a situation card that is clearer for children to understand, if this was the issue, or at working with the situations that did create a bigger reaction. Observing children in real life situations instead of interviewing them only would also yield more accurate results of children's coping styles. Because they will express their coping method naturally and instinctively. Finally, interventions programs may need to include a specific focus on increasing preschoolers' repertoire of positive coping behaviors using both problem and emotion focused strategies. For anxious children it would need to be promoted in the context of exposure therapy. Also, how

coping develops with cognitive maturation and what dimensions derived need to be replicated in future studies using a more diverse population.

Young children from disadvantaged groups suffer greater risk of mental health problems than their peers. Implementing the types of parenting programs analyzed in the study by Frydenberg, Deans and Liang (2017), would be very beneficial to prevent and treat current or future behavior and mental health problems in this population. Culturally and Linguistically Diverse (CALD) parents present a unique set of challenges compared to non-CALD parents but the study showed evidence that this group can benefit tremendously from a parenting program such as this one. They came out of the program with a set of skills that will enhance their coping strategies and coping outcomes which will improve their parenting capabilities as well as child behavior and wellbeing (Frydenberg, et al., 2017). Furthermore, The Early Years Coping Cards and Parenting Tip Sheets resulted as a valuable resource for parents to use at home. It was interesting to see that when we are developing a program to teach psychological skills we need to take into account the specific population and evaluate what is their predominant style before attempting to teach anything so we know where we are and where we should go with the program. We used those same Coping Cards for our sample, but our population is not from the same cultural or linguist background as theirs, so creating a new tool using our population would be beneficial to further the research on coping in preschool age children.

Moreland and Dumas (2007), believe coping in children should be studied from the viewpoint of the coping competency theory in which coping is divided into three dimensions which fit with the three ways they believe children cope. They believe children approach the three domains of coping of affective, social and achievement in a prosocial, asocial or antisocial way. This was confirmed which is beneficial for the field in that it allows researchers to focus

on the specific aspect of coping that are beneficial to the child by understanding which areas children may have more difficulty throughout their development (Moreland & Dumas, 2007). They also believe this model can be applied to both genders and this entire age group which is three to six-year old children. They also predicted that this model will correlate positively with the parent and teacher rated Coping Competency Scale and correctly predict externalizing disorders in children. Based on our results we could replicate the study and instead of using problem and emotion focused coping, we can use prosocial, asocial or antisocial way.

Research shows that children's coping dimensions holds true across gender and age. This means that children cope differently at different ages, but the way coping manifests remains similar across dimensions (Santucci, et, al., 2015). Moreland and Dumas (2007)'s research has provided theory driven evidence that the three-factor model fits well across age and gender even though the authors agree further research needs to include these variables with regards to this coping theory. Also, findings come from a high-risk population, so it is difficult to generalize, and it is different from our thesis' sample. The age group is very limited, and the authors do not know the extent of the representativeness of the population chosen. Furthermore, even though the three-factor model fit best, future research needs to test the construct validity of a one and three factor model on different populations to test adequacy of the model (Davis, et al., 2011). Moreover, the ethnic background of this sample is also limited in the sense that it is mostly African American and European Americans so future research needs to expand the ethnicities which is where this thesis is valuable since the population will be mostly Hispanic Americans.

Overall coping competence as well as prosocial and effective coping correlate with parent and teacher ratings of ADHD and ODD. This is important because it provides construct validity of the CCS-R and confirms previous findings that the way children cope is related to other

measures of adjustment (Davis, et al., 2011), in this case to externalizing disorders such as Attention Deficit Hyperactivity Disorder and Oppositional Defiant Disorder (Moreland & Dumas, 2007). This is important in the area of prevention. Since this study was done to a very young population, preventive measures can be taken to prevent future externalizing disorders. Additionally, since the Coping Competency Scale was able to validly predict externalizing disorders, it proves to be a very valuable tool for researchers and other professionals in the field.

Conclusion

Research has reported gender differences in the use of coping strategies among children and adolescents. However, the findings are mixed because coping has been defined differently by different authors with no clear consensus with research using different age samples and different ethnic and socio-economic backgrounds. But by addressing factors that might influence the inconsistencies with regard to gender differences in coping strategies in children and adolescents, we can expect to shed some light in the study of coping. This project aimed to add to the body of research in child coping since there is more adolescent coping styles and mechanisms research than preschool age coping research. A modification of this program for follow up research would be to use the Affective Knowledge Test (AKT, 1986) to gain more information on children's emotional understanding or use the Ambivalent Emotions Task by Gordis, Rosen & Grand (1989), but incorporating three-year-old children. Furthermore, it is very difficult to get an accurate picture of which mechanisms children use to cope and why which is also important to use parent and teacher surveys and use questionnaires to assess the different behaviors children have or the perceptions the parents have compared to the teachers' perceptions and then compare it to classroom observations as well

This can explain the lack of differences in coping methods used by the children in our sample since sadness and anger can be confused by younger children. One possible solution would be to have a coping card that represents anger and sadness the way the child actually understands it. The difference found in the fact that older children recognized and understand anger better than sadness can be explained by the difference in these two emotions. Sadness involves letting go of goals and control whereas anger means reacting forcefully to regain control (Chalmers & Deans, 2011). Future research would have to seek to find out more about the different emotions taking place when a child is trying to manage between the emotions of sadness and anger.

Also, children vary their coping strategy as a function of the situation they are facing the situations that evoked the most primary control coping were loss/separation, peer difficulty, and school failure, which leads us to believe it is because these situations the children perceive to have more control over regardless of gender. Medical stressors yielded higher secondary control coping approaches probably since these situations were less familiar, which led them to think they had less control over them**.** Nevertheless, in this dissertation it was found that with regards to the situations represented in the tool used, there was no statistically significant correlation between the preferred coping mechanism and the gender of the child.

Based on the lack of statistically significant differences or correlations between coping mechanisms children used in this project's sample we can infer that there needs to be different ways of testing this construct of coping at such a young age. Children's emotion understanding is evolving at this age along with other developmental factors that influence each other such as verbal skills. This means that the more aware the child is of coping strategies the more behaviorally and socially adapted that child will be. Moreover, the more developed the child is

in their language skills the easier it will be for him or her to come up with appropriate coping solutions in different situations. This might explain the lack of differences in coping mechanisms used by our sample and helps future research.

Furthermore, the lack of statistically significant differences could be due to the interpretation of controllability of each situation, which seems to have more of an impact as the child grows older and is cognitively more mature to be able to judge these situations correctly. We also need to take into consideration that some children are cognitively more mature and understand some situations as controllable while other children might judge the same situation as uncontrollable due to past experiences or lack of experiences in which the child might have learned the controllability of a given situation.

Another possible explanation is that society is changing and every day we see boys being socialized in the same manner as girls in the sense that they both have the same responsibilities and standards to achieve in the house and in school and the way they cope will be similar for boys and girls. This sheds further light that not all coping strategies are inadequate. They need to be judged based on the situation and the individual characteristics of the person. For example, some emotion focused responses can be adaptive in the sense that they have served as an evolutionary tool ensuring the survival of our species. Crying when left alone ensures that the mother will not abandon him. Coping is clearly an important factor for childhood development specialists, behavior specialist and anyone interested in improving the mental health field which has been found lacking on such basic concepts such as this one. "…Early manifestations of affective, social, and achievement competence may act as a protective factor in the development of behavior problems in the preschool years and beyond (Moreland & Dumas, 2007 p 8)."

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