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REDUCING STRESS AND INCREASING HOPE AMONG TYPHOON YOLANDA SURVIVORS

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REDUCING STRESS AND INCREASING HOPE
AMONG TYPHOON YOLANDA SURVIVORS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Maria Victoria Del Fierro
Mary Elizabeth Huxster

June 2015

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Approved by:

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ABSTRACT

Hundreds of thousands of people are affected by natural disasters every year. Many of these people face mental and emotional consequences from the traumatic experience. Research indicates that the aftereffects of such experiences can result in social, familial, and educational impairments in children. The current study tested the efficacy of a brief cognitive behavioral intervention on elementary school aged children intended to alleviate the mental and emotional consequences following a natural disaster. The study applied quantitative methods through pre and post intervention assessments measuring stress and hope. The participants assessed included 18 Filipino children between the ages of 10-12 years, who had recently been exposed to one of the strongest typhoons in the country's history. Incorporating a quasi-experimental design, 12 of these participants were given a brief cognitive behavioral intervention based on their parent / caregiver involvement in a supplemental workshop and 6 participants were engaged in facilitated play acting as a comparison group. Results indicated that the cognitive behavioral intervention was effective in reducing stress in children, but had little to no effect on hope. However, facilitated play proved to be effective in raising hope levels, but also raised stress levels in children. An inference may be made that future interventions embodying both cognitive behavioral therapy and facilitated play could increase hope and decrease stress in children who have experienced a natural disaster.

Furthermore, these initial findings contribute to seeking advocacy for inclusion of brief and low cost mental health interventions as part of relief efforts.

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This project would not have been possible without each of you and for that we sincerely thank you.

DEDICATION

I dedicate this project and the rest of my achievements to my parents who have worked hard and endured through countless sacrifices in order to provide better opportunities for me and my sister. Thank you for your patience, unconditional love, and support. Furthermore, I dedicate this project to those affected by natural / man-made disasters all over the world especially in impoverished countries that otherwise lack resources for rebuilding. I pray that you do not lose hope in your faith and in mankind during these difficult times.

It goes to say that hard work, passion, and determination were not the only ingredients to the success of the project. I could not thank my analytical research partner (Mary) enough for sticking with me throughout this exciting and often times overwhelming journey. I have learned much from her and I am looking forward to a friendship that would last forever. Most of all, I am eternally grateful for having Dr. Dennis as my mentor who never stopped believing in me and has inspired me to continue to pursue my goals and dreams despite the challenges. Lastly, I thank God for giving me the strength to proceed and for providing me with the support I need in life.

Maria Victoria Del Fierro

I would like to dedicate this project to my amazing friends and family, Rene, my research teammates and my amiable partner, Maria.

Mary Elizabeth Huxster

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CHAPTER ONE

INTRODUCTION

Problem Statement

The Philippines lie in the typhoon belt, which is an area hit by an average of 10–20 strong typhoons and 5 cyclones a year, putting its citizens at major risk for repeated natural disaster related trauma (Conde, 2004). The Philippines is also over fault lines which have caused major earthquakes, and some areas of the Philippines are affected by volcanoes. One of the more recent major disasters experienced was Typhoon Yolanda which occurred on November 8, 2013. According to the National Disaster Risk Reduction and Management Council (2014), Typhoon Yolanda killed 6,201 people, injured 27,665 people, and 1,785 people are still reported missing.

The impact of natural disasters on Filipinos was studied by a task force put together by the president of the Philippines following an 8–point earthquake in 1990. This task force was the Mental Health Task Force in Disaster Management (MHTFDM), and had the task of developing a disaster psychosocial program (Diaz, Murthy, & Lakshminarayana, 2006). The task force found based on a self-report questionnaire that the victims of the earthquake displayed many acute, physical, emotional, and cognitive stress symptoms (Diaz, Murthy, & Lakshminarayana, 2006).

Major emergencies such as Typhoon Yolanda impact the community in three ways: (1) there can be psychological distress associated with having

experienced a real and immediate threat to one's life, loss of loved ones, and the possibility of disaster reoccurring, (2) there can be damage to community infrastructure including extreme poverty, government repression, and destruction of buildings, and (3) there can be effects of displacement and being cut off from one's familiar community and environment (Williams, Carr, & Blampied, 2007).

One study that followed Hurricane Andrew focused specifically on the effects of the hurricane on children. In this study, 30% of children sampled showed severe Post Traumatic Stress Disorder symptoms and 60% had feared for their lives during the storm (La Greca, Silverman, Vernberg, & Prinstein, 1996). The researchers followed up with their participants 7 and 10 months post-hurricane and found that 18.1% were still experiencing severe PTSD after 7 months and 12.5% were after 10 months (La Greca et al., 1996). This study clearly shows the need for intervention with children following a natural disaster, as the numbers were significant for severe symptoms and would likely be higher if moderate and mild symptoms were included. It can also be noted that this sample was from a first world country with strong measures in place to respond to natural disasters and it is possible that these numbers would be much higher in third world countries due to their relative lack of resources for disaster response.

Currently in the Philippines, mental health services are utilized for the most part by middle to upper class citizens due to the time and cost being unrealistic for poorer members of the population (Tuason, Fernandez, Catipon,

Trivino-Dey, & Arellano-Carandang, 2012). Those unable to afford professional mental health services are more likely to seek help from religious or community leaders (Tuason et al., 2012). Because of the strong family orientation in the Philippines, Filipinos also often prefer to seek counsel from family members rather than professionals (Tuason et al., 2012). We observed that in the current study's sample, the villagers of the rural community in the central region of the Philippines had no exposure to mental health services prior to the study.

A World Health Organization (WHO) report on the mental health system in the Philippines reported that only 5% of the government's health budget was used for mental health services and most of those funds were directed to mental hospitals (World Health Organization, 2006). In addition, social insurance covers only acute inpatient care under mental health services (World Health Organization, 2006). The WHO concluded that the government in the Philippines was placing low priority on mental health, therefore creating a barrier for its citizens to access mental health treatment (World Health Organization, 2006). It is important that research in the Philippines continues so that the efficacy of mental health interventions can be demonstrated and to encourage government legislation to improve mental health services.

Purpose of the Study

According to Harris, Putnam, and Fairbank (2004), childhood trauma is a major public health concern worldwide that affects individual children, their

families, and the lives of their unborn children. Trauma is a result of crisis-inducing events including: “violent crimes, traumatic stressors or crisis-prone situations, onset or recurrence of mental illness, natural disasters, accidents, and transitional or developmental stressors” (Roberts, 2005, p.4). As reported by Moroz (2005), the costs of unrecognized and untreated trauma far exceed the costs of prevention and early intervention.

The purpose of this study is to evaluate the effects of a short-term and low cost intervention on reducing stress and increasing hope in children post natural disaster. This is intended to reduce children’s chances of developing childhood trauma, help them acquire the necessary mental health resources to prepare for the next natural disaster, and promote positive development among the children, their families and their community.

Focusing on the Children

Children are naturally resilient, and yet with constant exposure to natural disasters, resiliency alone may not prevent children from developing unhealthy emotional and behavioral habits. It is necessary for their experiences to be acknowledged and processed. Commers, Morival, and Devries (2012) noted that children in particular are susceptible to experiencing an impact on their mental health following a disaster, and stressed that there is often a lack of intervention for these children to address this impact. As such, they are vulnerable to increased stress, as well as decreased hope which could impact them in school, social settings and with their families.

In disaster responses, there is a need to adopt interventions to reduce mental distress sufficiently “so that survivors can benefit from whatever other supports are available in their community” (Yule, 2006, p. 263). Children are highly vulnerable to developing traumatic effects at this time and efforts to support their mental and emotional development post natural disaster should be widely addressed.

A Cognitive Behavioral Therapy Approach

The approach used in this study involved both the children and their parents, or primary support. This was intended to integrate the cultural element of strong family orientation in the Philippines as well as to increase the longevity of the intervention through its continuation at home by the caregivers. In addition, children look to family and caregivers for mental and emotional support, and if these adults struggle to cope themselves, they likely will struggle to help the children (Swenson et. al., 1996). The children may take on the maladaptive coping strategies and behaviors that these adults are utilizing (Swenson et. al., 1996); therefore, the intervention in this study was designed to address some of the traumatic effects caregivers may have been experiencing.

To help the children of the study become proficient in their understanding of behaviors and responses to disaster, we modified a manualized cognitive behavioral therapy approach called “Coping Cat”. Cognitive Behavioral Therapy (CBT) is defined as “a form of treatment that focuses on examining the relationships between thoughts, feelings, and behaviors” (Duckworth &

Freedman, 2012, para. 1). Coping Cat is a CBT based model specifically directed toward working with children and parents / caregivers in a group setting (Kendall & Hedtke, 2006).

Per SAMHSA's National Registry of Evidenced-based Programs and Practices (2014):

Coping Cat is a cognitive behavioral based intervention that assists school-age children in (1) recognizing anxious feelings and physical reactions to anxiety; (2) clarifying cognition in anxiety-provoking situations (i.e. unrealistic expectations); (3) developing a plan to help cope with the situation (i.e. determining what coping actions might be effective); and (4) evaluating performance and administering self-reinforcement as appropriate. This intervention uses behavioral training strategies with demonstrated efficacy, such as modeling real-life situations, role-playing, relaxation training, and contingent reinforcement. Throughout the sessions, therapists use social reinforcement to encourage and reward the children, and the children are encouraged to verbally reinforce their own successful coping. (para. 1)

The current study involved a week long program evaluation with a quasi-experimental design to test for the effectiveness of the Coping Cat intervention on children in reducing stress and increasing hope. A supplementary workshop, adopting the same modified Coping Cat curriculum, was offered to the parents / caregivers of the children in the experimental group to help the children sustain

their learning experience outside of their own workshops. Both interventions were modified to fit the time constraints and to account for any cultural considerations.

Significance of the Project for Social Work Practice

There is a scarcity of research on interventions that are successful in treating and preventing trauma in children impacted by natural disasters, especially low cost interventions, which is a hugely important consideration in countries with high rates of poverty (Commers et al., 2012). If studies such as this are able to show the efficacy of a low cost and short-term intervention in reducing stress symptomatology in children following a natural disaster, it could provide reason to allocate more funding toward mental health services. Reduction of such psychological symptoms could have the economic benefits of increasing productivity at school and work, as well as reducing related somatic symptoms that may require medical attention.

It is important to study this problem to be able to advocate for the inclusion of mental health services as part of relief efforts not only in the Philippines, but all over the world. If it can be proven that intervention, especially a brief and inexpensive intervention, can be successful in reducing symptoms of PTSD and improving mental health following a natural disaster, it will be more likely that mental health workers can make a case to obtain funding for services as part of relief efforts. This inclusion, combined with the strong cultural element of family oriented communities, may help reduce stigma that exists within smaller and

more rural communities that do not have previous exposure to mental health services. This leads us to test the following hypotheses:

1. A brief cognitive behavioral therapy group will reduce stress in children impacted by natural disaster.
2. A brief cognitive behavioral therapy group will increase self-reported levels of hope in children impacted by natural disaster.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Rosenfeld, Caye, Lahad, and Gurwitch (2010) define a disaster as an event that manifests the following attributes:

(1) It involves one or more of the following: destruction of property, injury, and loss of life. (2) It has an identifiable beginning and end. (3) It is relatively sudden and time-limited, even though the effects may be longer lasting. (4) It adversely affects a relatively large group of people. (5) It is public in that it affects members of more than one family. (6) It is seen as out of the realm of ordinary experience. (7) It is psychologically traumatic enough to induce stress in almost anyone. (8) It causes suffering or creates needs that cannot be alleviated without assistance. (pp. 10-11)

Because disaster encompasses characteristics that widely affect communities, we assessed the literature on disaster relief to better understand the problem. Theories were examined to aid in conceptualizing an intervention that best suited the needs of the sample population. A wide range of theories were presented in the literature. As a result of this assessment, the primary theory guiding the intervention of the current study was chosen to be cognitive behavioral theory, as it has been shown to be effective in working with children post natural disaster. Previous research indicates that children's reactions to

disasters tend to be underestimated; therefore, the effects on children are examined in this study.

In designing this study, we also took into consideration the local culture, which plays an integral role in children's reactions and recovery process. This was done through incorporation of parents, implementing the intervention in a group setting, and using scenarios likely to be familiar to the children in examples. Lastly, it was important to review any limitations and conflicting findings within the body of literature. This helped to determine the best intervention to support the affected population in their vulnerable stage.

Effects of Disasters on Children

A study done by Becker-Blease, Turner, and Finkelhor (2010) assessed the prevalence of disaster exposure and its effects on a nationally representative sample of 2,030 children in the United States. Data was collected using the Developmental Victimization Survey (DVS) through phone interviews with parents. The Trauma Symptom Checklist for Young Children and for Children was used to measure mental health symptoms such as anxiety, depression, and aggression. Surprisingly, only about 3% of the disaster victims reported seeking disaster-related counseling due to the notion that they "did not consider it to be for emotional and behavioral problems" (Becker-Blease et al., 2010, p. 1049). However, results showed that lifetime disaster exposure was significantly associated with anxiety, depression, and aggression in children.

Although the data was collected in the United States, the issue of lifetime exposure to disaster applies worldwide, especially in countries like the Philippines which is heavily susceptible to multiple natural disasters per year. To better understand the effects of this exposure, it is important to recognize that disasters affect people of all ages (Rosenfeld et. al., 2010). Because of the mental and emotional vulnerability of children, they are at high risk for developing mental health and behavioral problems. A child's reaction is related to their age and level of development and the authors noted that school-age children in particular are struggling to make sense of their world (Rosenfeld et al., 2010). Unforeseen circumstances (such as natural disasters) can have a negative impact on development, and children's reactions to disasters may often be underestimated by their parents and teachers.

Rosenfeld et al. (2010) categorized children's reactions to disasters into five domains: "cognitive, emotional, behavioral, physiological, and spiritual" (p. 68). Cognitive abilities and social competencies in children of school-age have begun to broaden to include concern not only for themselves, but for others as well. These are hindered when the child is exposed to traumatic events. Anxious feelings can be triggered, manifesting as difficulty in concentrating and extreme worry for the safety of themselves and their loved-ones. Coping mechanisms utilized by the child can vary from crying or acting out, to the use of humor. Differences in coping mechanisms can lead to tension among peers. "For example, after the attacks of September 11, 2001, a sixth-grade child made light

of the incident while riding the bus home from school. The other children took offense, ostracizing her and creating more difficulty for her overall coping” (p. 77).

Appropriate coping mechanisms should be taught to prevent further trauma-inducing situations such as in the given example. In addition, children are more likely to have good outcomes following a disaster if their parents are able to adjust (Rosenfeld et al., 2010). It is always important to include a child’s parent / caregiver in the recovery process because they are the child’s main resource.

Stein et al. (2004) conducted telephone interviews with parents on a national scale, and asked them to report on their child’s emotional and behavioral reactions to terrorism. Typical reactions that were disclosed by parents included: “feeling sad or unhappy, worrying a lot, and wanting to be with the parent more than before the terrorist attacks” (p. 187). These reactions were more commonly reported by parents of high school aged children and did not vary by the child’s gender. The researchers also measured parental involvement in their child’s recovery through positive interactions and active discussions with their child on emotional and behavioral reactions to the traumatic event. Results showed that the more parents discussed the event and the coping process they were going through the more likely the children were to have positive emotional and behavioral responses (Stein et al., 2004). However, the effects of disasters on children involve complex interactions within the various systems. There is still much to be learned about how race and ethnicity factor into the coping process,

and too often, culture and its influence tends to be overlooked (Stein et al., 2004).

Effect on Stress

Symptoms of stress have been observed in children following a natural disaster, which can develop into Post Traumatic Stress Disorder (PTSD), anxiety and / or depression. Increased stress levels have been found in children both immediately following the disaster as well as months later (Mondal et al., 2013). Many studies have shown that people exposed to a natural disaster have an increased risk of developing PTSD (Mondal et al., 2013). PTSD is related to stress in that it develops as a result of high stress situations (Smith, 2013). Children with PTSD are likely to have increased stress responses as a result of anticipatory stress (Grogan & Murphy, 2011). For these reasons, as well as accessibility to reliable measures appropriate to children, stress was chosen as a variable to measure in this intervention.

Effect on Hope

Hopelessness is a risk factor in developing depression, and is one of the criteria used to determine the presence of depression (Riskind, 2006). Conversely, the presence of hope has been shown to be associated with feelings of well-being and psychological health (Riskind, 2006). A study by Hagen, Myers, and Mackintosh (2005) suggested that having a positive, hopeful outlook serves as a protective factor for children. Children with less hope are more likely to have problems with adjustment including both internal and external issues. There is

also a negative association between hope and symptoms of depression (Hagen et al., 2005). Hope has been found to be central to predicting outcomes of interventions with people who have experienced a traumatic event (Levi, Leichtentritt, & Savaya, 2012). Because of these factors, we found it appropriate to include hope as a variable to be measured in this study.

Correlation Between Stress and Hope

Both hope and stress have an effect on a person's well-being (Folkman, 2010). Hope helps people to cope with stress, especially long term stress, protecting against the stress becoming an impairment (Folkman, 2010). After experiencing a major stressor, such as a typhoon, hope levels have been reported to decrease (Levi et al., 2012). Studies have shown that stress and hope are correlated in that higher stress scores correspond to lower hope scores (Yarcheski & Mahon, 2011). A positive state of mind is generally associated with a better ability to cope while depression and hopelessness have been linked with illness (Scioli et al., 1997).

Theories Guiding Conceptualization

This study used cognitive behavioral theory (CBT) as a guide for informing interventions. A family centered perspective was also incorporated by including parents in interventions ultimately targeted to their children (Rosenfeld et. al., 2010). Evidence has shown that CBT is the most empirically supported therapy for children and adolescents experiencing anxiety (Connolly & Bernstein, 2007).

Anxiety often comes as a result of stress, which was measured in this study (Chaby, Cavigelli, Hirrlinger, Caruso, & Braithwaite, 2015). The central idea of cognitive behavioral theory is that thoughts act on beliefs which then act on emotions and behaviors (Sawyer & Nunez, 2014). One of the main elements of cognitive behavioral therapy is cognitive restructuring. Cognitive restructuring allows the child to begin recognizing maladaptive or distorted automatic thoughts and replace them with reality based, coping-focused thoughts (Albano & Kendall, 2002). These therapies can also include psychoeducation to teach children to identify feelings, as well as physiological and behavioral responses. Relaxation exercises and coping skills can also be taught and incorporated into therapy. As Albano and Kendall (2002) wrote: “The overall goal of CBT is to teach youth to recognize the signs of unwanted anxious arousal and to let these signs serve as cues for the use of anxiety management strategies they are taught” (p.131).

The family centered perspective allows the expertise of the family themselves to contribute to their own care. The therapist is no longer the authority and consultant to the parent. They provide their experience and knowledge, but ultimately allow the parents to make independent decisions regarding their own parenting. This approach is culturally sensitive in allowing the family culture to guide interventions while maintaining traditions of family unity and involvement. The family as a unit, and not the child his or herself is the focus of the intervention. The basic tenets of the family centered perspective are that the family is viewed as the expert on themselves, focus is on family strengths,

and the community and cultural norms of the family are taken into consideration, as well as the environmental context in which the family lives (Thomlison, 2010). When evidence-supported interventions that are used with children involve the family, results show improved child development, increased parenting skills and better family relationships (Thomlison, 2010).

Cognitive Behavioral Therapy Approach to Disaster Mental Health

A study of people in northern China who were directly affected by an earthquake in 1998 had findings showing that 9 months after the earthquake, there were lower rates of PTSD close to the epicenter than there were farther away (Kokai, Fujii, Shinfuku, & Edwards, 2004). The researchers surmised that this result was due to the fact that people adjacent to the epicenter received more support and intervention following the earthquake, highlighting the importance of psychosocial interventions in reducing rates of PTSD (Kokai et al., 2004). Efficacy of brief intervention was demonstrated by a Medicins Sans Frontieres project that took place November of 2008 in the Philippines. Brief medical care was provided for those displaced by a conflict between the government of the Philippines and the Moro Islamic Liberation Front (Mueller et al., 2011). The project also engaged a mental health team, made up of psychologists, to whom they referred patients they suspected of having a mental health disorder (Mueller et al., 2011). The interventions provided by this team for trauma included psychoeducation, breathing and relaxation exercises, problem

solving counseling and cognitive behavioral therapy for depression and anxiety (Mueller et al., 2011). This brief psychotherapy approach was shown to improve symptoms of distress within only a few sessions (Mueller et al., 2011).

Another study, done in Athens following an earthquake in 1999, sought to find out whether cognitive behavioral therapy was effective in reducing symptoms of PTSD in children who had experienced trauma as a result of the earthquake (Giannopoulou, Dikaiakou, & Yule, 2006). Twenty children with mild to moderate PTSD participated in six weekly, two hour group sessions utilizing CBT. The results showed a decrease in symptoms of PTSD and depression. The symptoms were even further reduced after 18 months and maintained at 4 years (Giannopoulou et al., 2006).

Incorporating parents into treatment interventions for children has been shown to maximize effectiveness, as parents can provide support both during and after therapeutic interventions (Baggerly & Exum, 2008). It has been shown that teaching parents how to self-soothe, maximize their children's communication, and use coping skills can help them to support their children through recovery. Parents can be trained to work with their children and teach them these skills in a group psychoeducational format.

There are some interventions that have been shown to possibly do more harm than good if used unnecessarily or incorrectly with children following a natural disaster. This includes interventions specific to PTSD including debriefing, eye movement desensitization processing, and ventilation (Belfer,

2006). Many times, symptoms of PTSD immediately following a natural disaster could simply be a normal response to the experience, and thus diagnosing and treating for PTSD could be harmful.

Hope was chosen as a second variable to measure based on the role it plays in depression. Hopelessness is a symptom of depression and increased hope may lead to decreased depression. Depression often is comorbid with anxiety and PTSD.

Pfefferbaum, Newman, and Nelson (2014) conducted a review of interventions that had been provided to children following natural disasters to assess effectiveness. They found that cognitive behavioral therapy and traumatic grief interventions were most beneficial with this population in preventing development of PTSD symptoms. Therefore, although there is not specific literature on use of cognitive behavioral therapy on Filipino children following natural disaster, it can be concluded that CBT is likely to be effective with this population as well.

Effect on Stress

There is a large amount of evidence supporting CBT as an effective intervention for children and adolescents that have experienced trauma (Smith et al., 2007). Studies specific to children experiencing post traumatic stress following a natural disaster also support the efficacy of CBT for this type of population (Smith et al., 2007). Increasing coping skills, as taught in the intervention used for this study, has been shown to help reduce stress (Powell &

Blanchet-Cohen, 2014). When taught in a group setting, participants can learn to utilize coping skills that involve interaction with each other.

Effect on Hope

Research has suggested that building hope is one of the mechanisms of action in CBT (Riskind, 2006). Cognitive restructuring, a part of CBT, helps children who have experienced trauma to change their thinking from that of a victim to a survivor (Kuban & Steele, 2011). Emphasis can be placed on resilience, therefore increasing a sense of hope. Powell and Blanchet-Cohen (2014) conducted a study of the use of group interventions with children who experienced collective trauma. They found that through CBT strategies such as understanding feelings and increasing coping skills, protective factors such as hope could be increased (Powell & Blanchet-Cohen, 2014).

Cultural Considerations

The effect of culture on children's responses to disaster is one of the most understudied issues in the body of disaster research (Rabalais, Ruggiero, & Scotti, 2002; Rosenfeld et. al., 2010; Stein et. al., 2004). Examining how disasters unfold in the context of culture is another uncommon topic in research (Masten & Osofsky, 2010). Because culture plays a key role in the coping process of each individual (DeVries, 1996), it is important to address these gaps in the literature.

An important factor to consider when examining the effectiveness of an intervention is to be aware of the community's specific culture. Bischoff et al. (2014) suggested the idea of collaboration with rural communities by practicing cultural sensitivity. He asserted that it was essential for a mental health provider to practice cultural sensitivity through honoring the care systems already operating in the community (Bischoff et al., 2014). In every community, cultural beliefs play a significant role in each individual. Therefore, it is necessary to understand the effects of religion and spirituality to the mental health treatment of the community.

Religion is defined as a stable base for understanding the purpose and the context of an individual / community's psychological healing (Batniji, Van Ommeren, & Saraceno, 2005). Abe-Kim, Gong, and Takeuchi (2004) described the main differences between religion and spirituality among Filipino-Americans as religion being an institution, and spirituality as more of a personal experience. Furthermore, he emphasized that religion causally influences health through its social support systems, encouragement of healthy behaviors, and use of adaptive coping strategies. Coincidentally, all these factors are influenced by the mental health intervention process. So what makes religion different from therapy, and how is one form more appealing than the other?

Culture is defined as the language, values, beliefs, traditions, and customs that bind people together (Rosenfeld et. al., 2010; Samovar & Porter, 2001). In Filipino culture, they highly value family and community as well as religion.

Sanchez and Gaw (2007) examined the barriers to mental health treatment for Filipino Americans and found that both religion and family support systems contribute to perceptions of mental health.

A strong sense of religion focuses the Filipino toward alternative forms of medicine. During the pre-colonialist period and through most of the Spanish era, treatment of mental and physical conditions would involve rituals aimed at reversing punishment from the spiritual world and restoring balance in the physical world. (p. 812)

Because of this belief, Filipinos accept a spiritual form of healing when their world is spiraling out of control or has lost its balance. Regaining balance can also be attributed to the collectivist culture. Family members often support one another at vulnerable stages.

Mental illness is dealt with through the help of family and friends and faith in God. One's mental affliction is identified as the family's illness and is associated with shame and stigma. The open display of emotional affliction is discouraged in favor of social harmony. Assistance is often sought from relatives and peers before approaching professionals. (p. 812)

We concluded that in order to understand and to develop an effective treatment plan for this population, culture should be embraced as a powerful factor in the design of any interventions.

To respect the cultural considerations of this population, we implemented the following meaningful changes to the study:

- Replaced the term “therapeutic groups” and adjusted the term to “group workshops” – to minimize stigma.
- Designed an intervention that encouraged parental involvement as well as collaboration with the school – to incorporate the culture’s collectivist nature.

In addition to these changes, we strove to practice cultural sensitivity while implementing the current study in order to bring about positive and effective changes with the children and their families.

Methodological Limitations and Conflicting Findings

A significant limitation to this study was the small sample size, which reduces generalizability. The sample was a convenience sample, and consisted of only Filipino children aged 10-12. It could perhaps be generalized to the larger population of Filipino children of this age group, but not necessarily other populations. However, there was no existing research on the use of CBT with children in the Philippines, and this study is therefore helping to fill that gap in the CBT literature.

There is also no literature on the impact of natural disasters on children in the Philippines. Neria, Galea, and Norris (2009) compiled existing studies of post disaster reactions in children and adolescents, and in over one hundred studies

conducted in a twelve year period, none were related to disasters in the Philippines.

An early model of disaster mental health intervention was Critical Incident Debriefing. However, more recent studies have shown that this approach is not effective as a disaster intervention (Neria et al., 2009). The more current model for disaster mental health is psychological first aid, which focuses on the immediate aftereffects of the disaster and emphasizes engagement, safety, stabilization, information and practical assistance (Neria et al., 2009).

This study differs from other disaster mental health studies in that the time frame is nine months post disaster, while interventions such as psychological first aid, and critical incident debriefing take place shortly after the disaster.

Conclusion

Attention to the psychological effects of natural disasters and effective interventions to reduce those effects is on the rise. Yet there is still much research needed, particularly among children and diverse cultures. The more social work comes to understand what interventions are effective for the diverse populations affected by natural disaster, the easier it will become to engage these populations in services and lobby governments for implementation and support of services.

CHAPTER THREE

METHODS

Introduction

This chapter presents a description of the study's design, sampling practices, method of data collection, evaluation instrument, and procedures for collecting the data. It also details the protection of our participants. Lastly, it describes how the data were analyzed.

Study Design

In response to Typhoon Yolanda, we joined a team of five Master of Social Work students from a university in California in designing an international research and service project under the supervision of our professor. The project had two major components (Appendix A): a general needs survey and groups / workshops. The general needs survey was concerned with current unmet needs in the community nine months after the natural disaster. Different neighborhoods were included to obtain a representative sample of the community's needs. The groups / workshops were divided into a psychoeducational workshop for the parents / caregivers, a cognitive behavioral therapy (CBT) group for one set of children, and a comparison group for another set of children engaged in facilitated play. For the purpose of this particular study, focus will remain on both children's groups testing for the following hypotheses:

1. A brief cognitive behavioral therapy group will reduce stress in children impacted by natural disaster.
2. A brief cognitive behavioral therapy group will increase self reported levels of hope in children impacted by natural disaster.

Using the stated hypotheses to guide conceptualization, we used a quasi-experimental design to test for the effectiveness of the CBT intervention in reducing stress and increasing hope in children impacted by natural disaster. This was done by facilitating two children's groups: one group that received a CBT intervention in conjunction with a psychoeducational workshop for parents / caregivers, and one group that acted as a comparison group participating in facilitated play.

For the CBT group, the investigators modified an existing intervention (Coping Cat) and constructed a curriculum with the intent of addressing specific themes during each session. These themes were best summarized with the acronym "FEAR"; concentrating on feelings identification, expectations and thoughts, attitudes and actions, and results and rewards. The parent workshop, in conjunction with the CBT group, also followed a similar format addressing the same themes for each session. This method allowed the parents / caregivers to supplement what their children were learning throughout the duration of the intervention. Both these groups ran once a day for under two hours within the span of a week. At the final session, all three groups (both children's groups and

the parent workshop) gathered together for a small celebration to promote their cultural sense of community building and healing.

Sampling

To proceed with the project, a partnership was made with a Rotary Club in the Philippines which identified a rural village in the central region that was affected by the typhoon. This community was in need of the aforementioned services due to its remote location and low income population, which reduces its access to any mental health services. Using the Rotary's connections within the community, we were able to collaborate with the community's local elementary school in acquiring voluntary participants for the study.

Participants for both children's groups were chosen through purposive sampling. Because the Coping Cat curriculum was designed for adolescents, participants ranged from fifth to sixth grade and were current students in the elementary school. The school staff was informed beforehand that it would be beneficial to all parties if the chosen participants had a basic comprehension of the English language, due to time constraints and the limited availability of facilitators who could speak the local language. Although this was suggested as a selection criterion, it was by no means a strict rule. The groups were open to anyone who would voluntarily participate and any language barriers were addressed through the use of appropriate translators.

Children were assigned to groups based on their parent / caregiver's willingness to participate in the supplementary workshop. The children of parents / caregivers who agreed to participate were assigned to the CBT group (n = 12). The children of parents / caregivers who opted out of the parent workshop were assigned to the comparison group (n = 6).

Data Collection and Instruments

Data that was collected and evaluated were designed to measure two potential areas of impact following the experience of trauma in children: stress and hope. All participants had experienced Typhoon Yolanda impacting their village; causing destruction, injury, and displacement in their community. Data was collected from both the CBT group and comparison group to determine the effectiveness of the CBT intervention on the sample population.

Participants completed assessment scales prior to intervention and upon conclusion of the intervention. The first half of the assessment used the Children's Revised Impact of Events Scale (CRIES 8), which is an eight-item screening tool designed to measure stress symptoms in children aged eight and above (Horowitz, Wilner, & Alvarez, 1979). Participants were asked 8 questions rated on a 3-point Likert scale. In order to establish the mean stress score for each group, the scale was assigned point values: Not at All (0), Rarely (1), Sometimes (2), and Often (3). A participant's stress score was measured by the individual total of the CRIES 8, for which the highest stress score a participant

can have is 24. The CRIES 8 is both valid and reliable, and has been used among a variety of cultures (Smith, Perrin, Dyregon, & Yule, 2003).

The second half of the assessment used the Children's Hope Scale (CHS), a six-item measure of children's dispositional hope. This scale was intended for use with children aged eight to sixteen. Participants were asked 6 questions rated on a 5-point Likert scale. In order to establish the mean hope score for each group, the scale was assigned point values: None of the Time (0), A Little Time (1), Sometimes (2), A Lot of Times (3), Most Times (4), and All Times (5). A participant's hope score was measured by the individual total of the CHS, for which the highest hope score a participant can have is 30. Research shows that the CHS is consistent, stable, and valid (Snyder et al., 1997).

Strengths of the instruments include its reliability and validity, as well as its successful use in other countries and cultures. Both combined instruments remained a short, one page assessment that took participants less than ten minutes to complete (Appendix B). We found no existing version of the instruments translated into the native language of the participants: Cebuano / Visayan. This limitation was addressed by having a translated version created by a local liaison in the Rotary Club, who is well versed in the local language. Another limitation was that due to time and location constraints, the assessment could not be given to participants at separate times or in separated places. Therefore, there may be some social bias involved.

Procedures

Participants of this study were recruited by teachers and administrators of the local elementary school in the central region of the Philippines. Participants were selected based on their exposure to trauma during Typhoon Yolanda. Once the participants were identified, they were given a detailed explanation of the study and what their participation would entail. The participants could then choose to remain and engage in the study and interventions, or were able to opt out if preferred. Informed consent was collected from the parents / caregivers of the children who chose to participate in the study (Appendix C). A child assent was then read to the children participants (Appendix D). The children were then given the initial assessment. The informed consents, the child assents, and the assessment instruments were all available in English and in Cebuano / Visayan.

The interventions consisted of a CBT group and a facilitated play group for two hours a day over the course of a week. Concurrent with the CBT group, a parent workshop was conducted to provide additional support to the children's CBT intervention. Both the children's CBT group and the parent workshop curriculums were modified from an existing program, Coping Cat, to account for time limitations and cultural considerations. Children participants for the CBT group were identified based on their parent / caregiver's participation in the parent workshop. The children whose parents / caregivers opted out of the parent workshop were placed in the comparison group where they engaged in facilitated play.

Coping Cat Curriculum

Each session was designed to address specific themes established in the Coping Cat workbook. These themes were tailored to provide support for those who were impacted by the natural disaster.

Session 1: Feelings Identification. Participants were asked to identify good and bad feelings in response to a natural disaster. The purpose of this session was directed in helping the children recognize their feelings to initiate the process of exploring coping mechanisms when faced with difficult conditions.

Session 2: Expectations and Thoughts. Having successfully identified feelings associated with the impact of natural disaster, participants were challenged to adjust their negative thoughts by exploring alternate thoughts synonymous to developing feelings of well-being and a positive outlook.

Session 3: Attitudes and Actions. As participants continue to identify feelings and challenge negative thoughts as reactions to a natural disaster, this session focused on discovering ways to manage challenging situations.

Session 4: Results and Rewards. Participants were encouraged to be conscious of the results they experience and to always reward themselves not only for successfully accomplishing tasks but for the effort placed regardless of the outcome.

Session 5: Integration. To assist participants with integrating week's long material, they were divided into groups by the facilitators to encourage more interaction with those they normally do not mingle with. In groups, they were

assigned one of the themes from the week and were asked to collaboratively create a poster of what they had understood. Each team then presented in front of their peers as well as their parents / caregivers in the parent workshop, which promoted the community's sense of togetherness and belonging.

Protection of Human Subjects

Participant anonymity was protected through the use of alphanumeric codes as identifiers in place of names. The master document that correlated codes with names was kept on a separate password protected document and saved on cloud based storage. Electronic data was kept on a password protected computer and saved to a password protected Dropbox account to bypass data being stored in any physical location. This privacy measure was implemented due to the international nature of the study.

Because our sample involved children, this study was permitted by the community's leaders (Appendix E) and was granted full University Institutional Review Board approval (Appendix F). All parents / caregivers were provided with informed consents and children were read an assent script.

Data Analysis

Data was analyzed and coded using Statistical Package for Social Sciences (SPSS). Mean scores were compared between both interventions (CBT & comparison group) to assess for the effectiveness of the CBT intervention as it

relates to the participants' stress and hope. An effect size analysis was conducted to test for any significant differences between the two means in the small sample.

Summary

This chapter described the methodology used in measuring how levels of stress and hope in children changed following group interventions. It included a description of the study's quasi-experimental design, purposive sampling practices, pre and post method of data collection, evaluation instruments adapted to measure stress and hope, and breakdown of procedures for collecting the data. It also details how information collected from participants was kept anonymous and confidential. Lastly, it describes how the data were analyzed using an effect size analysis.

CHAPTER FOUR

RESULTS

Introduction

The purpose of the current study was to determine the effectiveness of a brief cognitive behavioral therapy intervention in reducing stress and increasing hope among children who survived the typhoon. This chapter covers the demographics of participants involved and the description of the analyses used on the data collected. A summary of the findings is then presented.

Demographic Characteristics of Participants

Demographic characteristics for both groups are displayed in Table 1. Two separate groups were facilitated simultaneously at the same location. Both groups combined were composed of females (78%) and males (22%) of Filipino descent, between the ages of 10-12 years. All participants had been exposed to a recent traumatic event (Typhoon Yolanda) at the time of intervention.

Table 1. Demographic Characteristics of Participants

<i>Variable</i> (N = 18)	<i>Frequency</i> (n)	<i>Percentage</i> (%)
Intervention Group		
CBT	12	67
Comparison	6	33
Gender		
Male	4	22
Female	14	78
Age		
10-12 years	18	100
Ethnicity		
Filipino	18	100

Presentation of Findings

To test for the efficacy of the cognitive behavioral therapy (CBT) intervention, a brief children’s group survey was constructed to measure the following variables: stress and hope. The survey itself was divided into two sections, each containing modifications of a valid and reliable scale targeted for the intended measurements. This assessment was given both to the CBT group and comparison group. Analysis of the assessment results was performed to test the following hypotheses:

Hypothesis 1

The first hypothesis stated that a brief cognitive behavioral therapy group will reduce stress in children impacted by natural disaster.

CBT Group. A pre mean stress score of 14.25 (SD = 3.79) indicated that 75% of participants in the CBT group (n = 12) fell within one standard deviation of the mean in stress scores prior to intervention. A post mean stress score of 12.75 (SD = 4.25) indicated that 58% of participants in the CBT group (n = 12) fell within one standard deviation of the mean in stress scores following intervention.

Comparison Group. A pre mean stress score of 13.17 (SD = 2.93) indicated that 86% of participants in the comparison group (n = 6) fell within one standard deviation of the mean in stress scores prior to intervention. A post mean stress score of 15.00 (SD = 2.19) indicated that 83% of participants in the comparison group (n = 6) fell within one standard deviation of the mean in stress scores following intervention.

Table 2. Testing Hypothesis 1

	CBT Group (n = 12)		Comparison Group (n = 6)		Effect Size	
	M	SD	M	SD	<i>d</i>	<i>r</i>
STRESS						
Pre	14.25	3.79	13.17	2.93	0.32**	0.16**
Post	12.75	4.25	15.00	2.19	-0.67***	-0.32***
Effect Size	<i>d</i>	<i>r</i>	<i>d</i>	<i>r</i>		
	0.37**	0.18**	-0.70***	-0.33***		

***indicates a MODERATE difference, ***indicates a LARGE difference*

As summarized in Table 2, pre mean stress scores varied between groups (CBT $M = 14.25$, Comparison $M = 13.17$) yielding a moderate effect size ($d = 0.32$, $r = 0.16$). Regardless of the differences in pre mean scores, a 10.5% decrease in CBT group stress (pre $M = 14.25$, post $M = 12.75$) yielding a moderate effect size between pre and post intervention stress scores ($d = 0.37$, $r = 0.18$) in contrast to a 13.9% increase in comparison group stress (pre $M = 13.17$, post $M = 15.00$) yielding a large effect size between pre and post intervention stress scores ($d = -0.70$, $r = -0.33$) supports the hypothesis that a brief cognitive behavioral therapy group will reduce stress in children impacted by natural disaster.

Hypothesis 2

The second hypothesis stated that a brief cognitive behavioral therapy group will increase self-reported levels of hope in children impacted by natural disaster.

CBT Group. A pre mean hope score of 15.58 ($SD = 4.50$) indicated that 75% of participants in the CBT group ($n = 12$) fell within one standard deviation of the mean in stress scores prior to intervention. A post mean hope score of 15.08 ($SD = 4.03$) indicated that 67% of participants in the CBT group ($n = 12$) fell within one standard deviation of the mean in hope scores following intervention.

Comparison Group. A pre mean hope score of 16.00 ($SD = 5.06$) indicated that 86% of participants in the comparison group ($n = 6$) fell within one standard deviation of the mean in hope scores prior to intervention. A post mean hope

score of 18.83 (SD = 4.96) indicated that 67% of participants in the comparison group (n = 6) fell within one standard deviation of the mean in stress scores following intervention.

Table 3. Testing Hypothesis 2

	CBT Group (n = 12)		Comparison Group (n = 6)		Effect Size	
	M	SD	M	SD	<i>d</i>	<i>r</i>
HOPE						
Pre	15.58	4.50	16.00	5.06	-0.09*	-0.04*
Post	15.08	4.03	18.83	4.96	-0.83***	-0.38***
Effect Size	<i>d</i>	<i>r</i>	<i>d</i>	<i>r</i>		
	0.12*	0.06*	-0.57**	-0.27**		

indicates a SMALL difference, **i indicates a MODERATE difference, *i indicates a LARGE difference*

As summarized in Table 3, pre mean hope scores slightly varied between groups (CBT M = 15.58, Comparison M = 16.00) yielding a small effect size ($d = -0.09$, $r = -0.04$). Regardless of the small differences in pre mean scores, a 3.2% decrease in CBT group hope (pre M = 15.58, post M = 15.08) yielding a small effect size between pre and post intervention hope scores ($d = 0.12$, $r = 0.06$) in contrast to a 17.7% increase in comparison group hope (pre M = 16.00, post M = 18.83) yielding a moderate effect size between pre and post intervention stress scores ($d = -0.57$, $r = -0.27$) does not support the hypothesis that a brief cognitive

behavioral therapy group will increase self-reported levels of hope in children impacted by natural disaster.

Eliminating Outliers

A participant (CH₆) in the CBT group reported uniquely high levels of hope during pre assessment. We decided to remove this outlier to see if there was an effect on the hope scores.

CH₆ in CBT Group. To test for any significant differences between mean scores, this outlier was excluded in a separate analysis of the CBT group pre and post hope assessment data. Results showed a pre assessment mean hope score of 14.64 (SD = 3.23) and a post assessment mean hope score of 14.82 (SD = 4.12). The effect size between pre and post intervention hope scores was small ($d = -0.05$, $r = -0.02$).

Although hope increased by 1.2% with the omission of this outlier (pre M = 14.64, post M = 14.82) in comparison to a 3.2% decrease in hope without the omission of this outlier (pre M = 15.58, post M = 15.08), the small effect size indicated no essential differences between means. Therefore, the elimination of this outlier had little to no effect on supporting the hypothesis that a brief cognitive behavioral therapy group will increase self-reported hope levels in children impacted by natural disaster.

Comparing Differences

Due to delayed notification of two parents / caregivers attending the supplementary Parent Workshop, two participants (CH₁₁ and CH₁₂) were

transferred from the comparison group to the CBT group after the pre assessment was given and session one of both groups had been completed. We decided to exclude these two participants in a separate CBT group analysis to test for any significant / statistical differences between Partial CBT group (n = 10) versus Full CBT group (n = 12) and its effect on supporting the hypotheses. This was done through an effect size analysis for each pre and post group on both dimensions: stress and hope.

Differences in PRE Stress Scores. As summarized in Table 4, Partial CBT group (M = 15.40) and Full CBT group (M = 14.25) reported a moderate effect size between pre intervention stress scores ($d = 0.34$, $r = 0.17$).

Differences in POST Stress Scores. As summarized in Table 4, Partial CBT group (M = 13.30) and Full CBT group (M = 12.75) reported a small effect size between post intervention stress scores ($d = 0.13$, $r = 0.06$).

Table 4. Comparing STRESS Differences

	Partial CBT Group (n = 10)		Full CBT Group (n = 12)		Effect Size	
	M	SD	M	SD	<i>d</i>	<i>r</i>
Pre	15.40	2.88	14.25	3.79	0.34**	0.17**
Post	13.30	4.24	12.75	4.25	0.13*	0.06*

*indicates a SMALL difference, **indicates a MODERATE difference

Differences in PRE Hope Scores. As summarized in Table 5, Partial CBT group (M = 16.60) and Full CBT group (M = 15.58) reported a small effect size between pre intervention hope scores ($d = 0.24$, $r = 0.12$).

Differences in POST Hope Scores. As summarized in Table 5, Partial CBT group (M = 15.40) and Full CBT group (M = 15.08) reported a small effect size between post intervention hope scores ($d = 0.08$, $r = 0.04$).

Table 5. Comparing HOPE Differences

	Partial CBT Group (n = 10)		Full CBT Group (n = 12)		Effect Size	
	M	SD	M	SD	<i>d</i>	<i>r</i>
Pre	16.60	4.06	15.58	4.50	0.24*	0.12*
Post	15.40	4.30	15.08	4.03	0.08*	0.04*

**indicates a SMALL difference*

Because there were no large differences between Partial CBT group and Full CBT group scores, this indicated little effect on its relationship to the hypotheses. Therefore, we chose to move forward with the initial analysis of the Full CBT group.

Correlating Stress and Hope

CBT group results showed that as stress decreased, hope decreased, while the comparison group results showed the opposite; as stress increased,

hope increased. These results were contradictory to the belief that stress and hope negatively affect each other, meaning that as stress decreased, hope would increase. To examine this conflicting finding, the relationship between stress (as measured by CRIES 8) and hope (as measured by CHS) was investigated using Pearson product-moment correlation to determine the relationship's strength, direction, and shared variance.

CBT Group. There was a positive correlation between pretest stress and pretest hope ($r = 0.61$, $n = 12$, $p = 0.03$, $R^2 = 0.37$) as summarized in Table 6. This indicated that prior to intervention, there was a strong, positive correlation between stress and hope with a 37% shared variance. In contrast, there was a positive correlation between posttest stress and posttest hope ($r = 0.30$, $n = 12$, $p = 0.35$, $R^2 = 0.09$) as summarized in Table 6. This indicated that following intervention, there was a weak, positive correlation between stress and hope with a 9% shared variance.

Table 6. Correlating Stress & Hope in Cognitive Behavioral Therapy Group

	Pre CBT Group (n = 12)		Post CBT Group (n = 12)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Pearson coefficient	0.61***	0.03	0.30*	0.35
Shared variance (R^2)	37%		9%	

*indicates a WEAK correlation, ***indicates a STRONG correlation

Overall, decreases in reported stress with the CBT group were correlated with decreases in reported hope with the CBT group.

Comparison Group. There was a positive correlation between pretest stress and pretest hope ($r = 0.55$, $n = 6$, $p = 0.25$, $R^2 = 0.31$) as summarized in Table 7. This indicated that prior to intervention, there was a large, positive correlation between stress and hope with a 31% shared variance. In contrast, there was a positive correlation between posttest stress and posttest hope ($r = 0.59$, $n = 6$, $p = 0.22$, $R^2 = 0.35$) as summarized in Table 7. This indicated that following intervention, there was a strong, positive correlation between stress and hope with a 35% shared variance.

Table 7. Correlating Stress & Hope in Comparison Group

	Pre Comparison Group (n = 6)		Post Comparison Group (n = 6)	
	r	p	r	p
Pearson coefficient	0.55***	0.25	0.59***	0.22
Shared variance (R^2)	31%		35%	

***indicates a STRONG correlation

Overall, increases in reported stress with the comparison group were correlated with increases in reported hope with the comparison group.

Conflicting Findings. It was initially believed that stress and hope negatively affect each other, where as stress increased, hope then would decrease. However, these results suggested that stress and hope can coexist in relation to children impacted by natural disaster.

Summary

The data presented in this chapter were results of pre and post stress and hope assessments with elementary age children who have experienced the recent devastation of a typhoon. Preliminary analysis indicated a decrease of stress and hope in the CBT group and an increase of stress and hope in the comparison group. Outliers and additional factors were removed in a separate analysis to test for their effect on stress and hope, which suggested no significant effects on both variables. Results reported a strong positive correlation between stress and hope for both CBT and comparison group, indicating that as stress decreased, hope decreased contrary to existing research. Hence, these findings support the hypothesis that a brief cognitive behavioral therapy group will reduce stress in children impacted by natural disaster but do not support the hypothesis that a brief cognitive behavioral therapy group will increase self-reported levels of hope in children impacted by natural disaster. Further discussion of the findings will be described in the succeeding chapter.

CHAPTER FIVE

DISCUSSION

Introduction

This chapter evaluates the hypotheses, and discusses the significant differences found in scores pre and post intervention. It breaks down these results and describes the analysis per each study group. Next, this chapter identifies possible limitations to the present study. Lastly, it provides implications of the results and recommendations for future research.

Discussion

The purpose of this study was to determine the effectiveness of a brief cognitive behavioral intervention on the levels of stress and hope on children impacted by a natural disaster. Research has shown that children suffer from symptoms of post traumatic stress disorder especially when left untreated after the initial disastrous impact (Commers et al., 2012; La Greca et al., 1996). These unprocessed symptoms contribute to their fear of future traumatic events and hopelessness (Staples, Abdel Atti, & Gordon, 2011). Participants in this study ranged from 10-12 years old and were in the fifth or sixth grade, consistent with literature on the intended recipients of the Coping Cat intervention (Kendall & Hedtke, 2006). These participants were identified by their teachers as having difficulty functioning after the recent natural disaster and as having a basic

comprehension of the English language, in order to minimize the language barrier.

Hypothesis 1

The results of our study supported our hypothesis in showing that the cognitive behavioral therapy group did reduce stress in children. Children in this group reported a moderate decrease in stress. Congruent with the findings, the CBT intervention was effective in assisting the children in clarifying the context of the traumatic situation to be able to explore appropriate coping mechanisms (SAMHSA's National Registry of Evidenced-based Programs and Practices, 2014); thus, leading to a reduction in strong feelings associated with stress.

Results of the comparison group also support the hypothesis as the stress scores went up in this group, indicating the reduction in stress found in the CBT group is likely a result of the intervention rather than investigator effects (the presence of the investigators and / or additional attention given by the investigators). Based on responses to individual items on the assessment, most of the participants in the comparison group expressed feelings of trying not to think about the traumatic event and reported increased strong feelings in response to the natural disaster (Appendix B). This finding is consistent with the comparison group intervention where participants were engaged in facilitated play and were not exposed to discussion about the impact of the typhoon on their well being.

Prior to and during this study, the participants had not been exposed to any other professional mental health services. Therefore, it is likely that the changes in stress scores were a direct result of the mental health services provided through this study. Through participation in the group, participants were likely to have acquired new coping skills, awareness of emotions, ability to differentiate between realistic and distorted thinking, and increased expression of thoughts and feelings. These results corresponded to results of previous studies in which CBT based interventions following a natural disaster were seen to reduce post traumatic stress symptoms and depressive symptoms (Giannopoulou et al., 2006; Pfefferbaum et al., 2014). These results also indicated that short term CBT groups would be beneficial to implement with children following a natural disaster in order to reduce stress (Smith et al., 2007). This could maximize productivity and well being following the traumatic event.

Hypothesis 2

The results of the study did not support our second hypothesis that the cognitive behavioral therapy group would increase hope in children following exposure to natural disaster. The results showed that hope scores had a slight decrease, but with the removal of an outlier, the scores essentially remained the same. This indicated that the CBT group had little to no impact on feelings of hope in children. According to individual items on the post assessment, most participants in the CBT group expressed feeling that they were not doing well and they were having trouble coming up with ways to address problems (Appendix

B). These responses are indicative of lower hope levels as evidenced by lack of a positive outlook (Hagen et al., 2005).

Results of the comparison group were contradictory to our hypothesis, showing a significant increase in hope from pre to post assessment. This suggests that facilitated play, as utilized in this group, may have a positive effect on hope in children following natural disaster related trauma. Based on responses on individual items in the assessment, most participants in the comparison group expressed feeling that they are doing just as well as other kids their age and they had confidence in finding ways to solve problems even when others want to quit (Appendix B).

A factor to consider in the lack of change in hope scores found in the CBT group is that the intervention chosen was designed to target anxiety and stress (Connolly & Bernstein, 2007; Kendall & Hedtke, 2006; SAMHSA's National Registry of Evidenced-based Programs and Practices, 2014). It was thought that hope would have a negative correlation with a reduction of stress, but this does not appear to be the case. There appears to be a need to target hope and stress in different ways. It should not be assumed that what would reduce stress would increase hope and vice versa.

Correlating Stress and Hope

Kasler, Dahan, and Elias (2008) found a negative correlation between PTSD and hope among children impacted by disaster. However, our results suggested a strong positive correlation between stress and hope as participants

reported a decrease in stress and hope in the CBT group while the comparison group reported an increase in stress and hope. These findings are inconsistent with previous literature explaining decreased levels of hope in response to a major stressor in that the correlation was shown to be negative (Levi et al., 2012; Yarcheski & Mahon, 2011). The literature indicates that in prior research, hope would increase with decreased stress and vice versa.

Theoretical Explanations. Freud (1919, 1955) theorized that children during developmental stages undergo magical thinking (hope) during times of crisis or stress, or when they feel they cannot understand their external world. Furthermore, Jacoby and Keinan (2003) argued that psychological stress and hope (magical thinking / desire for control) can coexist, additionally explaining the relationship of hope as a coping mechanism in response to stress. Their findings suggested that children may use hope as a coping mechanism to regain control in a stressful situation.

Based on our findings, it can be postulated that the CBT group reported a decrease in both stress and hope because children in the CBT group were asked to remember the typhoon during their exploration of feelings and ways to cope in times of stress. Because hope is defined as a protective factor against stress, the reduction in stress in the CBT group positively affected hope - meaning that children in the CBT group may have had less need to utilize hope as a coping mechanism because they had found alternative ways to reduce stress through participation in the CBT group.

In contrast, it can be postulated that the comparison group reported an increase in both stress and hope because children in the comparison group engaged in facilitated play with no intentions of addressing either stress or hope. In this group, the increase in stress, resulting from the typhoon and the topic being reawakened in their community, positively affected hope - meaning that children in the comparison group may have needed hope as a coping mechanism to regain control in a stressful situation.

Limitations and Strengths

Results of this study need to be viewed in light of its limitations and strengths. The current study was limited by a number of factors, including sample size, demographics, data collection time frame, and assessment tools. The sample size was small, therefore limiting ability to make implications based on data because of limitations of significance. Participants shared the same ethnic background located in one geographical area, so results might not be generalizable to other populations.

The interventions were conducted within one week, narrowing the time for change to occur and be measured based on the intervention. Pre and post assessments were administered at the beginning and at the culmination of interventions. Limitations in the availability of space might have allowed for social bias during completion of the pre assessments, since all children and parents were grouped in the same room. These assessments were adapted from existing

instruments designed to measure stress (Horowitz et al., 1979) and hope (Smith et al., 2003). However, the intervention itself was modified from an existing CBT curriculum (Kendall & Hedtke, 2006) that primarily targeted anxiety in adolescents. The differences in measurement and assessment might have impacted the positive correlation between stress and hope in both groups.

When viewing the data collected from assessments, it is apparent that there was a significant difference in stress scores for the CBT group and comparison group prior to intervention. Without the two groups starting at equal stress levels, the effect that the difference in pre scores had regarding results must be taken into consideration. This limits how strongly inferences can be made regarding effect of intervention due to the moderating effect the difference in pre scores may have had.

The most challenging limitation was the international nature of the study (Appendix A). Although the international aspect provided a unique cultural perspective, a restriction had to be placed on the number of participants each intervention group could have due to the limited availability of facilitators fluent in the local language, limited availability of facilitators who were able to travel to the Philippines, and the limited time frame of the project. Timing may have served as a limitation as well, with the study being implemented nine months after the typhoon. Perceptions of the traumatic events may have changed over time and the way a child had been coping immediately following impact may be different compared to months later.

Strengths of the study include the incorporation of parents / caregivers of children in the CBT group through consideration for the communal culture as well as allowing for interventions to continue being carried out at home by parents after the facilitated interventions ended. These parents / caregivers were part of a supplementary parent workshop aimed to support their child's positive growth through the CBT intervention. The hope was to promote family cohesion by assisting both the children and their parents / caregivers in their journey towards resiliency.

Recommendations for Social Work Practice, Policy, and Research

This project provides evidence that short-term cognitive behavioral therapy groups can be beneficial to children following a natural disaster in helping them control and reduce stress. This is especially relevant for children in the Philippines, who are likely to be exposed to natural disaster many times over the course of their lives. However, children are affected by natural disaster all over the world, and short-term CBT groups may be effective with other populations as well.

Significance of Research

Two major barriers to the utilization of mental health services in the Philippines are the time and cost such services typically entail (Tuason et al., 2012). Many Filipinos find it difficult to take time away from work providing for themselves and their families, and few have money to spend on non-essentials.

In addition, government support of services for Filipinos living in rural areas is extremely limited. Only 5% of the health budget is used for mental health services and most of those funds go to mental hospitals (World Health Organization, 2006), which much of the population does not have access to due to limitations in geography, transportation, and funds.

Having an effective intervention that takes only a brief amount of time and is low cost may increase access to services for Filipinos. It increases the likelihood that they will be able to afford the time and money it would take to utilize these services themselves. In addition, it creates a case for advocacy of increased mental health support from government, especially following a natural disaster. It strengthens the case for increased funding when it can be shown that benefit can be maximized with minimal cost. This could be advocated not only to local government, but also to relief groups. In addition to providing food, water, and shelter, relief organizations could also provide brief psychological interventions aimed to help people cope mentally and emotionally in the aftermath of the trauma.

Suggestions for Future Research

This study could be expanded upon in future research through increases in sample size, including children of varying age groups, and researching with children of varying cultures and ethnicities. Future studies could also explore changes in both the number and length of group sessions.

Each client presents with a multitude of problems that can only be treated by “achieving a thorough and holistic understanding of the person and his / her social environment” (Lazarus, 1981, p. 13). Thus, adopting a multimodal approach in therapy that incorporates a combination of interventions tailored to each client is beneficial. Our findings suggested that facilitated play provided increased hope and cognitive behavioral therapy reduced stress in children, thus supporting the idea that a multimodal approach would maximize benefit.

Results from the comparison group showing increased hope were unexpected based on our hypothesis; however, the level of increase was significant and justifies further exploration. Based on the literature review and the results of our intervention, CBT has been shown to reduce stress through improving coping skills, changing thinking styles and changing behaviors. Although there is a scarcity of literature regarding the influence of facilitated play upon hope in children, it can be postulated based on our findings that play is a mechanism through which hope is boosted.

When working with children, play therapy is effective in enhancing their understanding of the external world by focusing on the symbolism presented in their inner world (Even & Armstrong, 2011; Wehrman & Field, 2013). Research has shown that engaging in play therapy empowers the children to better understand the context of their situation and provides confidence to the service professionals who are offering support to vulnerable children impacted by natural disasters (Hunt, 2006).

The findings indicate that the combination of facilitated play and CBT could have the intended effect of reducing stress and increasing hope among participants rather than having an effect on only one of the two variables. Therefore, combinations of CBT, play therapy, and facilitated play (during session breaks) are highly recommended for future use with this population.

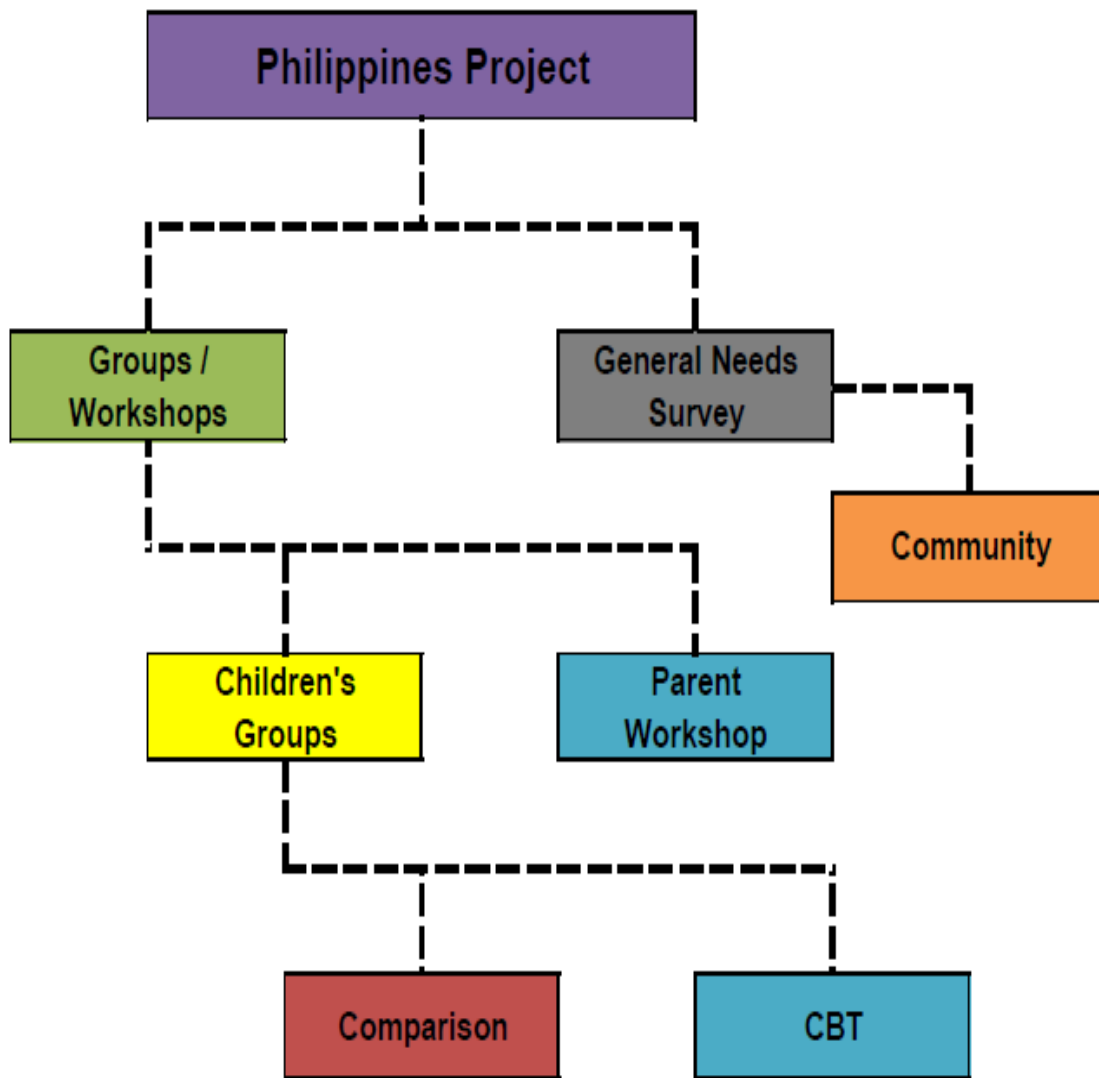
Research can be further expanded by continuing promotion of parental / caregiver involvement in parent workshops (supplementary to the CBT group) and by measuring levels of stress and hope in parents / caregivers of children engaged in these interventions, in order to further evaluate the effectiveness of the intervention. These results could contribute to research on the effectiveness of family support and the idea of strengthening families in a child's journey to recovery.

Conclusion

Natural disasters have been proven to leave physical and psychological aftereffects on an individual and their community. The severity of symptoms felt by an individual and their community will vary based on interventions they are able to access, whether through humanitarian efforts, relief groups, or therapeutic groups. This study explored the relationship between stress and hope and its impact on children by measuring the effectiveness of a brief cognitive behavioral therapy intervention as it relates to the impact of a natural disaster. This study suggested the effectiveness of CBT in reducing stress levels

in children but not in increasing hope levels in children. This was best explained as the present study revealed a positive correlation between children's stress and hope, indicating hope as a protective factor (coping mechanism) when stressful situations arise. Further research on brief and effective multimodal and multidimensional interventions for children impacted by natural disaster that can be generalized to other cultures and ethnicities is recommended.

APPENDIX A
PROJECT DESCRIPTION



	Children's CBT Group	Children's Comparison Group
# of Participants	12	6
Duration	# of sessions: 5 length: maximum of 2 hours frequency: once a day	# of sessions: 5 length: maximum of 2 hours frequency: once a day
Location	school	school
Pre & Post Assessment Questionnaires (using modified versions)	<p>To measure stress: Revised Child Impact of Events Scale</p> <p>To measure hope: The Children's Hope Scale</p>	
Intervention	adaptation of Coping Cat	facilitated play
Reasoning behind Chosen Intervention	<p>“Coping Cat is a cognitive behavioral treatment that assists school-age children in (1) recognizing anxious feelings and physical reactions to anxiety; (2) clarifying cognition in anxiety-provoking situations (i.e., unrealistic expectations); (3) developing a plan to help cope with the situation (i.e., determining what coping actions might be effective); and (4) evaluating performance and administering self-reinforcement as appropriate. The intervention uses behavioral training strategies with demonstrated efficacy, such as modeling real-life situations, role-playing, relaxation training, and contingent reinforcement. Throughout the sessions, therapists use social reinforcement to encourage and reward the children, and the children are encouraged to verbally reinforce their own successful coping” (SAMHSA’s National Registry of Evidenced-based Programs and Practices, 2014).</p>	<p>Used as a comparison group, the presence of an outsider who genuinely cares for the needs of the community is in itself a powerful therapeutic intervention. Throughout the sessions, therapists use group games to facilitate interaction between members.</p>
Facilitators	RT-1: 2 MSW students	RT-2: MSW student & professor

	Parent Workshops	General Needs Survey
# of Participants	11	84
Duration	# of sessions: 5 length: maximum of 2 hours frequency: once a day	# of session(s): 1 length: maximum of 2 hours frequency: one day only
Location	school	community
Pre & Post Assessment Questionnaires (using modified versions)	To measure depression: Patient Health Questionnaire (PHQ-9) To measure anxiety & stress: Depression Anxiety Stress Scales (DASS) To measure hope: The Adult Hope Scale To measure displacement & injury: Displacement & Injury Questionnaire	
Intervention	adaptation of Coping Cat (supplementary to kids version)	modified Center for Disease Control (CDC) Assessment for Public Health Emergency Response (CASPER)
Reasoning behind Chosen Intervention	“The parent workshop informs parents or caregivers about the experiences their child will have as he/she completes the program. Directed to parents or caregivers, the parent workshop provides information about the nature of anxiety, about its treatment, and about the ways that parents may be involved in their child’s treatment. Specifically, this program includes information about identifying somatic responses to anxiety, changing anxious thinking, using relaxation, engaging in problem solving, and approaching rather than avoiding anxiety provoking situations” (SAMHSA’s National Registry of Evidenced-based Programs and Practices, 2014).	As stated by the CDC, CASPER is a specific set of tools designed to provide quick, inexpensive, accurate, and reliable household-based public health information about communities affected by natural or man-made disasters. It uses a validated sampling methodology to collect information at the household level on the health status and basic needs of a community affected by a disaster.
Facilitators	RT-3: 2 MSW students	all Research Teams (RT)

APPENDIX B
ASSESSMENT INSTRUMENT

ENGLISH VERSION

Questionnaires: Children's Group

Below is a list of comments made by people after stressful life events. Please ✓ each item showing how frequently these comments were true for you during the past seven days. If they did not occur during that time, please ✓ the "not at all" box.

	Not at All	Rarely	Sometimes	Often
Do you think about it even when you don't mean to?				
Do you try to remove it from your memory?				
Do you have waves of strong feelings about it?				
Do you stay away from reminders of it (e.g. places or situations)?				
Do you try not to talk about it?				
Do pictures about it pop into your mind?				
Do other things keep making you think about it?				
Do you try not to think about it?				

Directions: The six sentences below describe how children think about themselves and how they do things in general. Read each sentence carefully. For each sentence, please think about how you are in most situations. Place a ✓ in the box that describes YOU the best. For example, place a ✓ in "None of the Time" if this describes you. Or, if you are this way "All of the Time" , ✓ this box instead. Please answer every question by putting a ✓ in one of the boxes. There are no right or wrong answers.

Questions about Your Goals	None of the Time	A Little Time	Sometimes	A Lot of Times	Most Times	All Times
I think I am doing pretty well.						
I can think of many ways to get the things in life that are most important to me.						
I am doing just as well as other kids my age.						
When I have a problem, I can come up with lots of ways to solve it.						
I think the things I have done in the past will help me in the future.						
Even when others want to quit, I know that I can find ways to solve the problem.						

CEBUANO / VISAYAN VERSION

Inandam na Pangutana: Pagsalmot sa Kabataan

Nahisulat sa ubos ang gikasulti sa mga tawo human sa usa ka katalagman. Markahi ug ✓ kon kapila kini nahimong sakto sa milabay nga pito ka adlaw. Pero wala kini mahitabo sa sulod sa pito ka adlaw pilia nga markahan ang ". Wala gyud mahitabo".

	Wala Gyud	Panagsa	Matag Karon og Unya	Kasagaran
Imo ba kining mahunahunaan bisan di nimo tuyoon?				
Ganahan ba nimo kinig papason sa imong panumdoman?				
Makusganon ba gihapon ang imong gibati kabahin niini?				
Likayan ba nimo ang mga butang nga makapahinumdom nimo adto?				
Dili ka ganahan nga hisgotan tong paghitabo?				
Dunay bay mga talan-awon nga makit-an nimo kabahin sa hitabo?				
Sa pagbuhat og laing buluhaton, makapawala ba kini sa imong paghunahuna niadto?				
Gisulayan ba nimo nga di na to nimo hunahunaon?				

Giya: Ang unom ka mga pamahayag nagsulti kon unsa ang paghunahuna sa bata og unsa ang ilang kasaragarang buhaton. Basaha og maayo ang mga pamahayag. Sa kada pamahayag, hunahuna og maayo kon asa ka matumong. Markahi sa box kon asa nga pamahayag nga naghulagway kanimo. Panaglitan, butangi og ✓ diha sa box nga "Dili Gyud" kon kini ang naghulagway kanimo, apan kon ingon ani sad " Sa tanang higayon" Butangi og ✓ ang box. Palihug tubaga gyud ang mga pangutana pinaagi sa pagbutang og chik sa tanang lingin. Wala sakto o sayop nga tubag.

Pangutana Kabahin sa Imong Tumong	Dili Gyud	Panagsa ra Kaayo	Usahay	Kasagaran	Pirmi	Sa Tanang Higayon
Paminaw nako maayo man kayo ang dagan sa akong kinabuhi sa pgkakaran.						
Daghan kog mahunahunaan nga pamaagi aron makab-ot ko ang mga butang nga gusto kong makab-ot sa akong kinabuhi.						
Parehas ra ang akong kahintang sa mga bata nga kaedad nako.						
Kon duna koy problema, daghan kog pamaagi nga mahunahunaan para masulbad kini.						
Paminaw nako ang akong gibuhay sa kaniadto makatabang nako sa ogma damlag.						
Bisan moundang na ang uban, padayon akong mangita sa sulbad sa problema.						

APPENDIX C
INFORMED CONSENT

ENGLISH VERSION



College of Social and Behavioral Sciences
School of Social Work

Informed Consent for Children's Group

The study we are asking your child to take part in is to learn about the mental-emotional effect of the typhoon on children, and whether workshops can help children to feel less stress and anxiety and more hope. This study is being done by a group of Master of Social Work students from California State University, San Bernardino under the supervision of Dr. Cory Dennis, Assistant Professor. The research has been approved and is supported by the Rotary Club of Cebu Fuente and by Barangay Maya, San Isidro Labrador Church.

The study will use questionnaires to learn how much stress, anxiety, and hope the children feel both before and after several workshops. We will have a workshop lead by two therapists for about 90 minutes a day, once a day, for 5 days. The questionnaires will take 20-30 minutes to fill out, once on the first day and once on the last day.

It is up to you whether you want your child to be a part of the study and whether or not you want your child to answer any questions. You may choose to have your child not be a part of the study and he or she will still be able to be a part of the workshops. You may also take your child out of the study or the workshops at any time. We will also verbally confirm with your child that they would like to be part of the study.

Any information your child gives us as part of this study will be kept private. Information will be kept locked up or if on a computer, will be password protected. After the study is over, the information will be locked in a safe place until it is put on a password protected computer, and then paper copies will be destroyed.

There is a possibility that your child may become upset when talking about things that happened during and after the Typhoon. If this occurs, and additional support is needed, you will be notified immediately and your child will be referred to: Fr. Renald "Bobby" G. Paraguya, parish priest of San Isidro Labrador Church.

We hope that results from this study will help mental health professionals know how to help children that have experienced trauma due to natural disasters.

If you have any questions about this study, you may contact Cory Dennis, PhD, LCSW at 001-909-537-3501 or email him at cdennis@csusb.edu. You may also contact the Rotary Club of Cebu Fuente at 63-20917-202765988.

Upon completion of this study, results will be available at Rotary Club of Cebu Fuente: 25-H Nichols Heights, Guadalupe, Cebu City, AND/OR the School of Social Work, California State University – San Bernardino: 5500 University Parkway San Bernardino, CA 92407.

If you have any questions before signing the consent, please ask a research team member.

I understand this information and agree to allow my child to participate in your study.

SIGNATURE:

Parent/Guardian: _____ Date: _____

Print Child's Name: _____

909.537.5501

5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

The California State University • Bakersfield • Channel Islands • Chico • Dominguez Hills • East Bay • Fresno • Fullerton • Humboldt • Long Beach • Los Angeles
Maritime Academy • Monterey Bay • Northridge • Pomona • Sacramento • San Bernardino • San Diego • San Francisco • San Jose • San Luis Obispo • San Marcos • Sonoma • Stanislaus

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO
INSTITUTIONAL REVIEW BOARD COMMITTEE
APPROVED 06/06/19 19 MONTHS AFTER 06/05/18
IRB# 18063 CHAIR: *Sharon A. Wood, Ph.D.*

CEBUANO / VISAYAN VERSION

Pinahibalong Pagtugot

Kini nga pagtuon nangayo sa pagsalmot sa kabataan aron mahibal-an ang ilang gibati og paghunahuna gumikan sa bagyo. Og sutaon kon ang pangsulbad nga tigom (workshop) makapaminos ba sa kahigwaos, kalibog, kaguol og mopataas sa paglaum. Kini nga pagtuon gihimo sa hugpong sa mga magtutuo sa Master of Social Work gikan sa California State University, San Bernardino nga ubos pagdumala ni Dr. Cory Dennis, Luyo Luyong Professor. Kini nga buluhaton gihatagan og pagtugot og gipaluyohan sa Rotary Club of Cebu Fuente og sa Barangay Maya, sa Simbahan ni San Isidro Labrador.

Ang pagtuon mogamit og mga inandam nga pangutana aron mahibaloan ang gidak-on sa kahigwaos, kalibog og paglaum sa wala pa og sa paghuman sa mga pangsulbad nga mga tigom (workshop). Aduna kita tigom nga dalhon sa duha ka therapist nga pagahimoon sa 90 minutos kada aldaw sa sulod sa lima nagsunod nga adlaw. 20 ngadto sa 30 minutos ang kinahanglang panahon aron matubag ang mga inantigong pangutana nga kini buhaton lang kausa sa unang adlaw og sa katapusang adlaw.

Naa ra nimo kon ganahan ka ba nga mosalmot ang imong anak sa pagtuon og mahimo bang motubag o dili sa mga pangutana. Mahimo nga dili nimo paapilon ang imong anak sa pagtuon apan makapadayon gihapon siya sa pagsalmot sa pangsulbad nga tigom (workshop). Among usab diritsoon og mangutana ang inyong mga anak kon sila ganahan bang mosalmot niini nga pagtuon.

Tanang mapopo namo nga kahibalo gikan sa imong anak alang lang kanamo og dili basta bastang makit-an kon si bisan kinsa. Amo kining ampingan diha sa computer nga adunay password. Inig human sa pagtuon, tagoan pag-ayo ang mga kahibalo hangtud mabalhin sa computer nga dunay password. Human mabalhin ang mga kahibalo, sunogon ang tanang papel nga gigamit sa pagtuon.

Adunay purohan nga sapoton ang imong anak kon nga hisgotan kining mga butanga nga nanghitabo sa wala pa og sa human na ang bagyo. Kon mao gani kini ang mahitabo og kinahanglan ta og pag-abag, pahibal-on ka dayon og magtabang ta ni Padre Renald "Bobby" G. Paraguya, Kura Paroko sa Simbahan sa San Isidro Labrador.

Adunay mga kaayohan nga maangkon diha sa pagsalmot niini pinaagi sa mga makat-onan nga maayong mga pamaagi sa pagdala sa kahigwaos og kalibog. Among gilantaw nga ang among pagtuon makatabang sa mga

mananambal sa pangisip sa pagtambag sa mga kabataan nga nahiagom sa mga katalagman.

Kon dunay kay mga pangutana kabahin niini nga pagtuon, palihug pagtawag ni Cory Dennis, PHD, LCSW at 001-909-537-3501 o sa iyang email sa cdennis@csusb.edu. Mahimo pod nimong tawgan ang Rotary Club Cebu Fuente sa 63-20917-202765988.

Inig human niini nga pagtuon, hatagan namo og kopya ang Rotary Club Cebu Fuente, sa 25-H Nichols Heights, Guadalupe, Cebu City, og sa School of Social Work, Caifornia State University-San Bernardino: 5500 University Parkway San Bernardino, CA 92407.

Kon adunay ka pay mga pangutana sa dili pa ikaw mopirma niini nga pagtugot, mahimong magpakisayod ka sa bisan si kinsa nga miembro sa hugpong sa mga magtutuon. Nabasa og nasabtan ko ang gipasabot dinhi og miuyon ako nga mosalmot ang akong anak niini nga pagtuon.

PIRMA:

Ginikanan/Magbalantay: _____ Petsa: _____

Ngalan sa Bata: _____

APPENDIX D
CHILD ASSENT

ENGLISH VERSION



College of Social and Behavioral Sciences
School of Social Work

Script for Child Assent

Sometimes, we have problems we don't want to talk to our parents about and it helps to talk to someone else who's not a family member. We are doing a study on how talking to kids about their feelings/problems can help them feel less sad and worried as well as how it can help feelings of hope go up after a natural disaster, like the typhoon last year.

If you agree to be in our study, we are going to ask you to: (1) answer a few questions about your feelings, (2) join us for five group meetings (once a day) with other kids, (3) work on fun ways to help you feel better, and (4) answer the same few questions (mentioned in #1) after our last group meeting.

There are no right or wrong answers. Your parents already said okay and we wanted to make sure you're okay about it too.

909.537.5501

5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

The California State University - Bakersfield - Channel Islands - Chico - Dominguez Hills - East Bay - Fresno - Fullerton - Humboldt - Long Beach - Los Angeles
Maritime Academy - Monterey Bay - Northridge - Pomona - Sacramento - San Bernardino - San Diego - San Francisco - San Jose - San Luis Obispo - San Marcos - Sonoma - Stanislaus

CEBUANO / VISAYAN VERSION

Tamdanan Alang sa Pagpatando sa Bata

Adunay panahon nga dili nato ikasumbong ngadto sa atong mga ginikanan atong problema og nga mas maayo gani kini adto ko masulti sa ubang tawo nga dili apil sa among pamilya. Nagbuhat mi og pagtuon kon unsaon pagpakigsulti sa kabataan sa ilang problema og pagbati aron makuhakuhaan ang ilang kasubo og kabalaka og makahatag og paglaum human sa katalagman sama sa bagyo sa miaging tuig.

Kon moapil ka sa among pagtuon, adunay kami dyutay'ng kinahanglan nimong tubagon, una, motubag ba ka sa mga pangutana kabahin sa imong mga gibati, ikaduha, mokuyog kaba sa ubang kabataan nga matigom sa lima ka adlaw, ikatulo, maglingawlingaw aron mogaan ang paminaw og sa ikaupat tubagon og usab pangutana sa unang adlaw sa paghuman sa ikalimang tigom.

Walay sayop o husto ang imong mga tubag. Gipananghid na namo kamo sa inyong mga ginikanan og sila miuyon na og among gisiguro nga kamo mismo mouyon pod niini.

APPENDIX E
AGENCY LETTERS



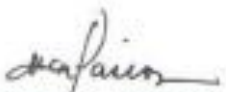
Rotary Club of Cebu Fuente
District 3860

May 5, 2014

To Whom It May Concern:

This letter verifies that Maria Del Fierro and her research team (under the guidance of Dr. Cory Dennis) from California State University, San Bernardino have the Rotary Club of Cebu Fuente's approval and support to conduct research on the influence of therapy and psychoeducation in children and families of Daanbantayan (Philippines) who were impacted by Super Typhoon Haiyan. We understand confidentiality and anonymity will be maintained for all participants as the research team engages the community in individual/family therapy, psychoeducational workshops, and community assessments.

Sincerely,


MARISOL PASION

President

Rotary Club of Cebu Fuente

Maya Elementary School
Maya, Daanbantayan, Cebu

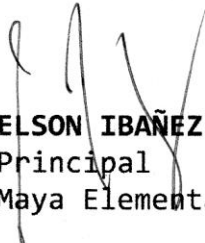
June 19, 2014

To Whom It May Concern:

This letter verifies that Maria Del Fierro and her research team (under the supervision of Dr. Cory Dennis) from California State University, San Bernardino have Maya Elementary School's support in connecting with the community of Maya, Daanbantayan, Cebu to conduct research on the influence of therapy and workshops in children and families who were impacted by Super Typhoon Haiyan.

We understand confidentiality and anonymity will be maintained for all participants as the research team engages the community in group therapy for the children, workshops for their parents, and community assessments to evaluate the needs post natural disaster.

Sincerely,



ELSON IBÁÑEZ
Principal
Maya Elementary School

San Isidro Labrador Parish
Maya, Daanbantayan, Cebu

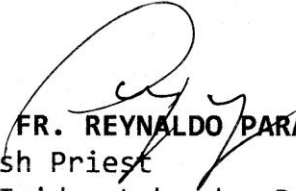
June 19, 2014

To Whom It May Concern:

This letter verifies that Maria Del Fierro and her research team (under the supervision of Dr. Cory Dennis) from California State University, San Bernardino have San Isidro Labrador Parish's support in connecting with the community of Maya, Daanbantayan, Cebu to conduct research on the influence of therapy and workshops in children and families who were impacted by Super Typhoon Haiyan.

We understand confidentiality and anonymity will be maintained for all participants as the research team engages the community in group therapy for the children, workshops for their parents, and community assessments to evaluate the needs post natural disaster.

Sincerely,


REV. FR. REYNALDO PARAGUYA
Parish Priest
San Isidro Labrador Parish

APPENDIX F
CSUSB INSTITUTIONAL REVIEW BOARD

June 06, 2014

Ms. Maria Del Fierro, Ms. Alexis Mitchell, Ms. Mary Huxster,
Ms. Mari Herrera, Ms. Crystal Chaparo, Ms. Kaneez Batool,
Ms. Lesley Quiran, and Valentina Vela
c/o: Prof. Cory Dennis
School of Social Work
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

**CSUSB
INSTITUTIONAL
REVIEW BOARD**
Full Board Review
IRB# 13063
Status
APPROVED

Dear Ms. Del Fierro, et al.:

Your application to use human subjects, titled "Tabang Daanbantayan: Philippines Research & Service Project" has been reviewed and approved by the Institutional Review Board (IRB). The attached informed consent document has been stamped and signed by the IRB chairperson. All subsequent copies used must be this officially approved version. A change in your informed consent (no matter how minor the change) requires resubmission of your protocol as amended. **Your application is approved for one year from June 06, 2014 through June 05, 2015. One month prior to the approval end date you need to file for a renewal if you have not completed your research. See additional requirements (Items 1 – 4) of your approval below.**

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the following 4 requirements as mandated by the Code of Federal Regulations 45 CFR 46 listed below. Please note that the protocol change form and renewal form are located on the IRB website under the forms menu. Failure to notify the IRB of the above may result in disciplinary action. You are required to keep copies of the informed consent forms and data for at least three years. Please notify the IRB Research Compliance Officer for any of the following:

- 1) **Submit a protocol change form if any changes (no matter how minor) are proposed in your research protocol for review and approval of the IRB before implemented in your research,**
- 2) **If any unanticipated/adverse events are experienced by subjects during your research,**
- 3) **To apply for renewal and continuing review of your protocol one month prior to the protocols end date,**
- 4) **When your project has ended by emailing the IRB Research Compliance Officer.**

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required.

If you have any questions regarding the IRB decision, please contact Michael Gillespie, the IRB Research Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillespie@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

Best of luck with your research.

Sincerely,

Sharon Ward, Ph.D.

Sharon Ward, Ph.D., Chair
Institutional Review Board

SW/mg

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ASSIGNED RESPONSIBILITIES PAGE

This was a two person project where authors collaborated throughout. However, for each phase of the project, certain authors took primary responsibility. These responsibilities were assigned in the manner listed below.

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2. Data Entry and Analysis:

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3. Writing Report and Presentation of Findings:

a. Introduction and Literature

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