Family Support and Psychological Well-Being among the Tsunami Survivors in Aceh Besar District, Indonesia

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ABSTRACT

The aim of this descriptive correlational study was to examine the relationship between family support and psychological well-being among the tsunami survivors. The study described the levels of family support and the levels of psychological well-being among the tsunami survivors. One hundred and twenty-six adult tsunami survivors in Blang Krueng village, Aceh Besar District, Indonesia were recruited for the study by using purposive sampling method. Data were collected by requesting the subjects to complete a set of questionnaire that was validated by three experts and tested for reliability with Cronbach's alpha coefficient. The set of questionnaires consisted of demographic and health information questionnaire, family support questionnaire (alpha = .79), and psychological well-being questionnaire (alpha = .72). The Family Support Questionnaire was used to measure the subjects' family support and the Psychological Well-Being Questionnaire was used to measure the psychological well-being of the subjects. The data were analyzed by using descriptive statistic and Pearson's product moment correlation was used to examine the relationship between family support and psychological well-being. The findings showed that the level of family support of the subjects was at a moderate level, similar to its sub scales which the subjects were also at a moderate level. The level of psychological well-being was at a high level. Its sub scales were also at a high level except the autonomy sub scale which was at a moderate level. Furthermore, the study finding showed that there was a significantly low positive correlation between family support and psychological well-being ($r = .37$, $p < .01$). This study provided evidence that the family support has a significant role in the psychological well-being of the tsunami survivors. Further study is needed to explore the family support and psychological well-being in different context to gain precious findings for improving the nursing science and practice.

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INTRODUCTION

Background and Significance of the Problem

Natural disaster like earthquake impacts large numbers of people throughout the world. Earthquakes are particularly common in Asia, because East and Southeast parts of Asia are situated on the Circum-pacific Seismic Belt. The enormous destruction due to the earthquakes results in the loss of life, home and infrastructure. The effect of an earthquake may frequently follow the tsunami adds to the destruction and loss of life and property.

On 26 December 2004, a huge earthquake occurred with its epicenter near the Indonesian island of Sumatra, walls of water came smashing along the coast lines of Indonesia and neighboring countries. Moreover, the 2004 earthquake and subsequent tsunami not only killed about 170,000 people, in the province of Nanggroe Aceh Darussalam, but also created horrific effects in all aspects of the society, including the physical health problems, mental health disorders etc. Many people experienced depression, anxiety, and post traumatic stress disorder (PTSD) because of the loss of family and property (Kelliat, 2005).

The Aceh Besar district in Nangroe Aceh Darussalam province was one of the areas which experienced extreme damage as a result of the earthquake and tsunami 2004, resulting in the death of approximately, 40,000 people (Kelliat, 2005). Aceh Besar district is composed of 22 sub-districts and had a population of 296,541 people in 2005 (District Health Office [DHO], Aceh Besar, 2007). Based upon the results of the assessment conducted by the Community Mental Health Nursing Program in Aceh Besar one year after the tsunami, it was found that 1,062 people were experiencing a mental health disorder, with 549 experiencing hallucinations (DHO Aceh Besar, 2007).

The tsunami 2004 generated a massive destruction in a short period. It affected a large section of population and destroyed the entire infrastructure of South east Asian countries. Tsunami survivors not only have to face the physical injuries and economic losses, but also need to cope with the emotional reactions due to the loss of livelihood, loss of loved ones, and displacement from the home. Moreover, severe natural disasters like tsunami greatly defy

individual perceptions of their own abilities and assumptions about the benevolence, predictability, and controllability of the word (Kum Tang, 2006).

Tsunami 2004 was the big stressor in life, as it caused many impact on psychological well-being of the survivors. More than half (54%) of individuals who exposed to the disaster developed the psychiatric symptoms immediately after the disaster, and that number dropped to 41% by 10 weeks, and 22% by 1 year (Austin & Godleski, 1999 as cited in Veenema, 2007). However, it does not mean that one year after a disaster, the survivors will be able to return to their normal life because the long-term psychological effects of the tsunami are more devastating than the physical effects, among the survivors who experiencing grief, guilt and fear. Some of the tsunami survivors in Aceh are still unable to handle the overwhelming emotions provoked by the losses incurred as a result of the disaster and showed signs of severe shock. Nearly everyone had to pass through a personal grief process. Many of the tsunami survivors displayed acute traumatic stress symptoms such as: intrusive thoughts and memories, heightened anxiety, sleeping disorders or guilty feeling. Many felt hopeless and feared about further disasters (Gryse & Laumont, 2007).

Therefore, the tsunami 2004 has a deep impact on the psychological well-being of the survivors because of several reasons including loss of the family members and friends, loss of homes and material possessions, loss of means of earning a livelihood, dislocation and the profound uncertainty and loss of a predictable and secure future (Gregor, 2005). One resource, that has been found to assist in dealing with the psychological impacts brought about by the results of natural disasters, such as earthquakes and tsunamis, is the presence of social support. Cobb (1976) defined social support as an information which leads the subject to believe that he is cared for, loved, esteemed, and a member of a network of mutual obligations. Disaster survivors who believed that they received enough social support have been found to have better psychological support than those who believed that they received little or no support (Norris, 2005).

A variant of the original model showed that support received after a disaster offset the detrimental effects of a disaster exposure on the subsequent levels of perceived (expected) social support. Attending the social needs of a disaster victim could go a long way towards protecting them from the long-term adverse psychological consequences (Norris, 2005). There are different sources of the social supports including family, friends, and health care providers.

Even though almost four years have gone after the tsunami struck, many literatures indicated that a big disaster such as tsunami that has an impact on all dimension of life can have long-term impact on psychological well-being of the survivors (Rateau, 2009). Family is the most significant source of support in dealing with a disaster like tsunami because it can provide its members a long-term or continuous assistance after the tsunami. Other support systems such as friends and health care providers can offer short-term assistance. Family can use personal potential and actual resources to make their life more satisfying and fulfilling to its members. Otto (1963 as cited in Newman, 2007) described the value of family strengths as a healing strategy. Family support can help its member to cope with the psychological problems that occur because of the tsunami and to increase the psychological well-being. Therefore, in this study the researcher wanted to explore about family support and psychological well-being among the tsunami survivors in Aceh Besar District, Indonesia.

Objectives of the Study:

The objectives of this study were as follows:

1. To describe the level of family support perceived by the tsunami survivors in Blang Krueng village, Aceh Besar district- Indonesia.

2. To describe the level of psychological well-being perceived by the tsunami survivors in Blang Krueng village, Aceh Besar district- Indonesia

3. To investigate the relationship between family support and psychological well-being among the tsunami survivors in Blang Krueng village, Aceh Besar district- Indonesia

Research Questions

This study attempted to answer the following questions:

1. What is the level of family support perceived by the tsunami survivors in Blang Krueng village, Aceh Besar district, Indonesia?
2. What is the level of psychological well-being perceived by the tsunami survivors in Blang Krueng village, Aceh Besar district, Indonesia?

3. What is the relationship between family support and psychological well-being among the tsunami survivors in Blang Krueng village, Aceh Besar district, Indonesia?

Hypothesis

There is a significant positive relationship between family support and psychological well-being among the tsunami survivors.

Conceptual Framework

This study aimed to explore the family support and psychological well-being among the tsunami survivors. The conceptualization of the social support proposed by House identifies four functional dimensions of social support: emotional, instrumental, informational, and appraisal. Emotional support is the most commonly recognized form of social support, generally comes from family and close friends. It includes the expression of caring, encouragement, empathy, love and a sense of belonging. Informational support means the help that others may offer through the provision of information, including practical advice provided by a family. Appraisal support involves giving assessment and reinforcement for positive behaviors. An instrumental support provides a tangible support, such as personal care and financial assistance.

Caplan (1974) acknowledges that support system functions depend on stability, intactness, and integration of a family. Family is the first context of population that has a major role of rearing, supporting, and socializing of an individual. Therefore, family is the most important sources of social support. With enough support from a family, an individual could be potentially buffered from the stress throughout a day. In addition, family support can increase a sense of belonging, purpose and self-worth; while promoting positive mental health. It can help someone get through divorce, job loss, natural disaster (i.e. tsunami), and death of a loved one and the addition of a child to the family structure.

Well-being is a subjective perception of vitality and better feeling. Psychological well-being refers to an emotional health; it means the ability to manage stress and to express emotion appropriately (Kozier, Erb, Bermen, & Burke, 2000). In this study, Ryff's concept is used as a framework to explore the psychological well-being of the tsunami survivors. Ryff (1995) defined psychological well-being as a positive psychological functioning which includes six dimensions;

autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self acceptance. Each of these dimensions reflects different challenges that an individual encounter in the development process. Autonomy means independence, self determination and ability to resists social pressure. Environmental mastery is the ability to modify environment in order to meet our personal needs and preferences. Personal growth means being open to new experiences or developing one's potential by growing and expanding as a person. Positive relations with others mean having satisfying high quality relationships. Purpose in life refers to believe that our life is meaningful and finds a meaning in our efforts and challenges, and self acceptances means a positive attitude towards our lives and the past lives.

The psychological well-being of the individuals will be inevitable, depending on the interpersonal interaction and social support (Rook, 1994 as cited in Wang & Nayir, 2006). When people are embedded in a benevolent network, they will be able to obtain social resources, such as instrumental and emotional support, to cope with daily stress or uncertainty (House, 1981, as cited in Wang & Nayir, 2006).

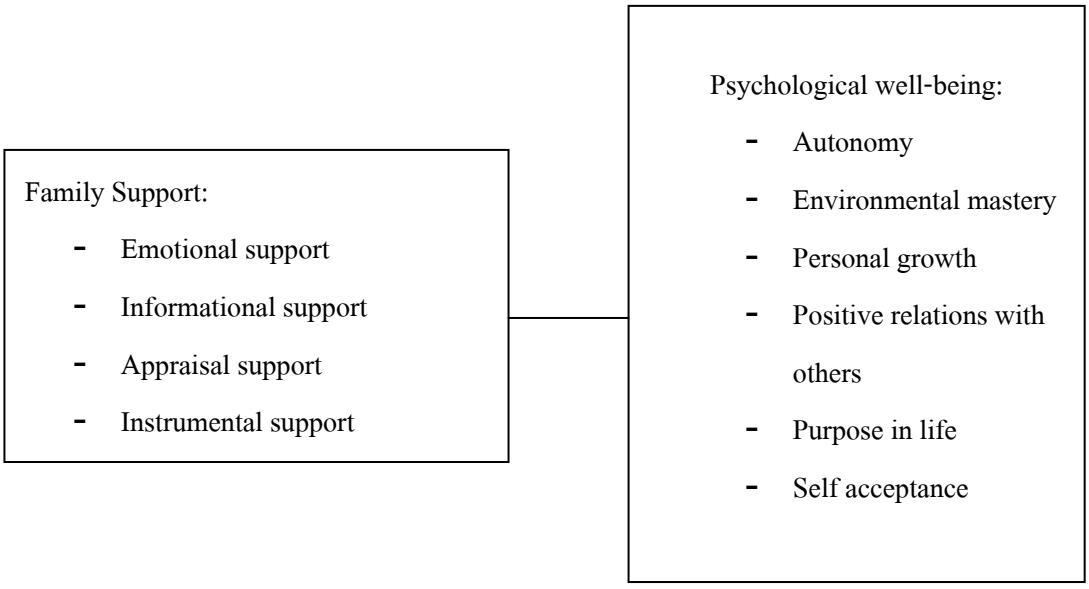

Figure 1: Conceptual framework to study family support and psychological well-being among the tsunami survivors.

Definition of Terms

Family support is the support perceived by the tsunami survivors that is provided by family members after almost four years tsunami 2004, who lived in separate house and were not directly affected by the tsunami. It is measured by using the Family Support Questionnaire that is developed by the researcher and her colleague (Fithria & Syarifah, 2008) based on House (1981) (Appendix B Part 2).

The psychological well-being in this study refers to a current state of positive psychological functioning perceived by the tsunami survivors. It is measured by using the Psychological Well-being Questionnaires which is developed by the researcher based on the concept of psychological well-being proposed by Ryff (1995) (Appendix B part 3).

Scope of the Study

This study was conducted in Blang Krueng village, Aceh Besar District, Indonesia. The researcher selected this village because it was one of the worst tsunami affected villages on December 26, 2004.

Significance of the Study

The results of this study contribute to nursing practice, nursing education, and in the development of further research as follows:

1. For nursing practice, the results of this study provide useful information for the nurses to recognize the role of family in providing a support for the tsunami survivors and to encourage and strengthen the family to promote psychological well-being of the tsunami survivors.
2. For nursing education, the knowledge gained from this study is beneficial for developing nursing knowledge especially related to the family support and psychological well-being among the tsunami survivors.
3. For nursing research, the results of this study provide initial information about the family support and psychological well-being of the tsunami survivors especially in Aceh Besar Distritc, Indonesia.

CHAPTER 2

LITERATURE REVIEW

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Overview of Tsunami 2004

The worst natural disaster in recent history occurred in Southeast Asia on December 26, 2004. An earthquake measuring above 9.0 Richter Scale triggered a powerful tsunami along the coastal regions of nearby countries. The disaster caused 300,000 deaths and affected at least 5 million people in Indonesia, Sri Lanka, Maldives, India, Thailand, Seychelles, and Myanmar (World Health Organization, 2005).

Indonesia was one of the most seriously affected countries by the tsunami resulted by the Indian Ocean earthquake on 26 December 2004. It swamped the northern and western coastal areas of Sumatra and the smaller outlying islands of Sumatra. Coastal Aceh, being closest to the quake's epicenter was worstly hit by tsunami 2004. Aceh suffered massive losses in terms of the life, property, infrastructure and natural environment. Entire settlements were swept away, and a large part of the capital Banda Aceh was destroyed. Higher casualties and damages took place in the province of Aceh. About 40,000 people were died in Aceh Besar district and many people lost their loved ones and properties (Kelliat, 2005).

An enormous destruction due to the tsunami 2004 results in the loss of life, homes, and infrastructures. Most of the people who were affected by this disaster experienced a powerful early psychological reaction; 30-40% developed post-traumatic psychopathology, 10-12% manifested PTSD (Raphael, 1986 as cited in Hobb, 1995). It is very important to provide the essential supports for the tsunami survivors in order to help them to cope with that stressful event. These essential supports include provision of kindness, support and common sense, provision of information about what happened to themselves, and provision of an opportunity to talk and express their feelings about their experiences (Hobbs, 1995).

Overview of Family Support

Definition

Family support is a type of social support that is obtained from the family. Cobb (1976) defined social support as the provision of information that leads people to believe that they are cared for, loved, esteemed, valued, and a member of a network of communication and mutual obligation. Norbeck (1981, cited in Hayes & Young, 2002) defined social support as a mutual assistance exchanged among the people who have social connections, such as family.

There are two major facets of social support including received social support and perceived social support. Received social support refers to naturally occurring helping behaviors that are being provided, whereas perceived social support refers to the belief that such helping behaviors would be provided when needed (Norris & Kaniasty, 1996). However, research has proclaimed that perceived social support is more significant than received social support, because it promotes psychological health more consistently and protects it in times of stress (Cobb, 1976). An expression of support does not constitute support, unless the receiver views it as such.

Pender (2002) described family support is an interpersonal transaction involving emotional concerns (expression of care, encouragement, empathy), aids (service, money, or information), and affirmation (constructive feedback, acknowledgment). Family support based on House's concept of social support (1981) is conceptualized into four dimensions that reflect four types of supports including emotional, informational, appraisal, and instrumental support.

Family is the most significant source of support because it can raise esteem and reduces a vulnerability of stress (Sarafino, 1994 as cited in Manji, Maiter & Palmer, 2005). Therefore, family support is very essential in dealing with a stressful event like tsunami 2004. When people fail to obtain a sufficient family support during a stressful event, they often experience a loss of interest in their efforts; feel that their efforts will go un-rewarded; lose motivation to change; forget the reasons to change; feel discouraged; feel that their efforts will be meaningless; feel depressed because change requires too great efforts; and want to give up when no visible change seems apparent (Messina, 2007).

The presence of family support will help the people to cope with their stressful situation. Therefore, when the people obtain an adequate family support they tend to feel: encouraged, motivated, supported, good about themselves, a need to pursue new paths; a need to work harder and longer to recover; a need to become more involved in their recovery process; a need to become conscientious in their efforts to change; and a need to become more realistic about the time and efforts needed to make necessary changes in their lives (Messina, 2007).

Types of family support

Family support means the social support which comes from the family members; there are different types of family supports. Following the definition of social support based on House (1981), family supports consists of emotional, informational, appraisal and instrumental support.

1. Emotional support is an expression of care, encouragement, empathy, love and a sense of belonging. It means someone who will reassure, who will express concern, care, or love and understand about our experiences.

2. Informational support refers to the help that family offers through the provision of information, including practical advice. It means someone who provides information and guidance that we need to act, make decisions, or who provides access to that information.

3. Appraisal support involves giving an assessment and reinforcement for the positive behaviors. It provides useful, accurate feedback about one's performance, behavior, and how to compare to expectations. This type of support also helps the people to evaluate themselves.

4. Instrumental support provides a tangible support, such as personal care and the financial assistance, which helps someone to meet the basic tasks of day-to-day life. It means someone who provides the labor, materials, or some other direct services.

Role of family support

Family support is the social support that is provided by the family to its family members which has a significant role in promoting and maintaining the health of an individual. Caplan (1974) proposed that having social support implies that the person has an enduring pattern of relationship over time. A social support network provides the psychosocial supplies and the maintenance of health for an individual including psychological health.

An important aspect of social support such as the family support is an expression of the comfort by one member of family to another. The stress-buffering hypothesis argues that social support positively influences the health and well-being by protecting the people from pathogenic effect of stressor (Cohen, 1985). Social support operates by influencing individual appraisal of the stressful situation. If the individuals perceived that high levels of support are available, their perceptions of the situations will be less stressful. Therefore, the social support has a protective function, and also related to positive health outcome.

Social support affects humans differently throughout their life span, thus, suggesting a need to receive and provide social support differently depend on the person's development stage. Family ties, friendships and involvements in the social activities are all forums for the social support. These forums facilitate a person's sense of belonging, purpose and self-worth, which in turn, can foster positive mental health. The positive effects of a support network include (Messina, 2007):

1. Sense of belonging; spending time with other people can help an individual ward off loneliness. It also can help people in coping with stressful events.
2. Increase sense of self-worth; the people who have close relationship with an individual reinforces the idea that he or she is a good person to be around.
3. Feeling of security; by reaching out and sharing the problems with others, an individual has the added security of knowing that if he or she starts to show signs of depression or exhibit unhealthy lifestyle habits. So, the others can help alert the individual to the problems.

Family support instruments

Since the family support is considered as the social support from family, the instrument for measurement of social support is often modified to be used to measure the family support. There are numbers of instruments to measure family support including Social Support Appraisal Scale (SSA), Social Support Behaviors Scale (SSB), Multidimensional Scale of Perceived Social Support (MSPSS) (Fischer & Corcoran, 1994), and Family Support Scale (FSS) (Dunst, Trivette, & Jenkins, 1986).

Social Support Appraisal Scale (SSA) was developed by Vaux et al (1986 as cited in Fischer & Corcoran, 1994) to measure the subjective appraisals of support in the adults. The SSA consists of 23- item statements about relationship with family and friends. Lower score indicating a stronger subjective appraisal of social support. This instrument has a very good internal consistency, with alpha coefficients that range from .81 to .90. The SSA was subjected to a considerable evaluation of its validity resulting in a very good concurrent, predictive, known groups, and construct validity.

Social Support Behaviors Scale (SSB) was developed by Vaux and Stewart (1987 as cited in Fischer & Corcoran, 1994) to measure modes of social support in the adults. The SSB is a 45-items instrument designed to assess five modes of social support: emotional, socializing, practical assistance, financial assistance and advice/guidance. Scores for sub scales and total scales are simply computed by summing individual item scores on the 5-point scales (possible range of 45-225). The SSB has a very good internal consistency, with alphas that range from .81 to .90 and this instrument also has good concurrent validity.

Multidimensional Scale of Perceived Social Support (MSPSS) was developed by Zimed et al (1988 as cited in Fischer & Corcoran, 1994) to measure perceived social support in the adults. The MSPSS consists of 12 item statements about perceived social support from three sources; family, friends, and a significant other. It is scored by summing individual item scores for the total and sub scale scores and by dividing the number of items. Higher scores reflect higher perceived support. The MSPSS has a excellent internal consistency, with alphas .91 for the total scale and .90 to .95 for the sub scales. The authors claim good test-retest reliability as well. The MSPSS has a good factorial validity and has good concurrent validity.

Family Support Scale (FSS) was developed by Dunst, Trivette, and Jenkins (1986) to measure perceived family support from the family with children disabilities. The Family Support Scale consists of 18 items. This Scale has a good internal consistency and constructs validity.

However, those instruments could not be used for this study because all of the instruments were developed in the western countries and not appropriate for the eastern people who have different cultures and beliefs. All of these instruments were also not focus to measure social support in a disaster like the tsunami, mainly the instrument were used to measure social support in general population. Therefore, the researcher developed an instrument to measure the family support based on House (1981) to use in this study.

Family Support of Tsunami Survivors

Tsunami, which happened on December 26, 2004 in Aceh, Indonesia, was a very stressful event. A family support is associated with how the family helps the survivors to cope with that stressful event**.** Perceived social support is the most thoroughly researched social resource. Disaster survivors who subsequently believed that they were cared by the others and

that help would be available, if needed, had felt psychologically better than the disaster survivors who believed they were unloved and alone (Norris, 2006).

Other needs that were likely disrupted by the disaster include the individual's sense of self-worth and sense of social connectedness. Experiences that lead to positive self-evaluation lead to positive affect, while negative self-evaluation is accompanied by distress Sandler (2001). Disaster seriously disrupted social ties and one's ability to access not only his or her extended community, but also family members as well. Because many tsunami survivors were relocated, supporting relationships of the family, neighborhood, church, and school level of organization were interrupted. In conclusion, after the tsunami 2004, many survivors had to move to a new place with different people and environment and they could not assess sources of the social supports.

Moreover, families were also separated and dispersed to the different geographical locations. Clearly, the adverse conditions precipitated by the tsunami threatened the goal and need for a bond of mutual value, caring and concern. Tsunami threatened the amount and the stability of contacts with the social ties of all affected people. The context in which an individual experienced the disaster might have profound effects on the social connectedness and perceptions of discrimination. Particularly, in those communities where the neighborhood was perceived as coming together to overcome the diversity, individuals should have perceived a greater sense of social support and less discrimination. In the context of disaster reaction, social support is often hypothesized to be protective factor and discrimination can be thought of as a risk factor and family support is the most significant source of the social support because it has long-term duration which helps people through life threatening conditions.

Overview of Psychological Well-Being

Definition and dimension of psychological well-being

Psychological well-being refers to mental or emotional health (Smith, Segal, & Segal, 2008). Ferrell (1996) defined psychological well-being as seeking a sense of control in the face of a life threatening conditions characterized by emotional distress, altered life priorities and fear of the unknown, as well as a positive life change. Another definition of psychological well-being is a balance between positive and negative affects (Bradburn, 1969 as cited in Wang & Nayir, 2006).

The formulation of psychological well-being consists of four aspects (Burgener & Chiverton, 1992):

1. Negative affect, including anxiety, depression, agitation, worry, and distressing psychological symptoms and represents the underlying trait of neuroticism.
2. Happiness, which is a cognitive judgment of positive affect over a relatively long term interval.
3. Positive affect, which is an active pleasure or emotional state versus a cognitive judgment.
4. Congruence between desired and attained goals.

Ryff concept of psychological well-being was widely used in previous studies (Richter, 2001). Ryff (1995 as cited in Ryff & Keyes, 1995) described psychological well-being as a positive psychological functioning which included six dimensions or components; autonomy (a sense of self-determination), environment mastery (the capacity to manage effectively one's life and surrounding world), personal growth (a sense of continued growth and development as a person), positive relations with others (the possession of quality relations with the others), purpose in life (a belief that one's life is purposeful and meaningful), and self-acceptance (a positive evaluations of oneself and one's past life).

1. Autonomy

1t means being self-determining, independent, and regulating our behavior internally, resisting social pressure to think and act in certain ways, and evaluating yourself by personal standards. It means that in their lives, people have their independence and self-determination. Autonomy reflects that the people have freedom to be in charge of their own lives, choosing where they live, who they spend time with, and what they do. The people have the resources that they need to create a good life and to make responsible decisions. This also means that people can chose where, when, and how they get help for any problems they might have.

2. Environmental mastery

Environment influences the people's life in many different ways; therefore environmental mastery is one of the dimensions of psychological well-being. Environmental mastery means feeling competent and able to manage a complex environment; choosing or

creating the personally suitable contexts. This dimension of psychological well-being reflects how the people manage their environment to meet their personal needs.

3. Personal growth

People have different goals and priorities, which mean that different activities and attitudes will make us feel good about ourselves. The people also have different natural strengths and weaknesses that are a part of their inherent personality type. It means having feelings of continued development and potential and being open to new experiences; feeling of increasingly knowledgeable and effective. The people should be open to new experience in order to achieve a better psychological well-being.

The ways that people do for improving their self-knowledge and realizing their true goals can be very liberating, however, we should not discard the rules of the society in which we live. We must recognize that the other people's value systems are no less important than our own. We must recognize and accept that we live in a society in which certain personality types and behaviors are more suited towards particular tasks.

4. Positive relations with others

An individual strive to cultivate warm and trusting interpersonal relationship. It also means being concerned about others' welfare, being capable of a strong empathy, affection, and intimacy, understanding give-and-take of human relationship. Relationships that foster a sense of belonging and intimacy seem to play a vital role in maintaining health. On the other hand, social isolation tends to increase the risk of mortality from a number of causes. An extent to which we maintain our close personal relationships, and the degree to which we feel a part of our community or have deep, abiding social and psychological resources, help us to determine how protected we are against the biological, environmental, or interpersonal assaults.

5. Purpose in life

It is the belief that one's life is purposeful and meaningful. An individual feel that both present and past experiences are meaningful; and holding beliefs that give purpose to life. Finding the purpose and deepest intentions of the life can help people to move with greater focus and clarity every day of their life.

6. Self-acceptance

Self-acceptance means having a positive attitude toward ourselves; acknowledging and accepting multiple aspect of self; and feeling positive about our past life. So, people attend to hold positive attitudes about themselves despite the awareness of their limitation. The higher a person's self-acceptance, the higher will be self esteem. It is our willingness to love ourselves and our body for all the limitations. We know that we never become perfect and therefore have to stop being self-critical.

Factors influencing psychological well-being

Within the broad based of ideas surrounding psychological well-being, researcher also reviewed the issues of psychological distress, depression and other psychoanalytic points. The psychological well-being can be affected by many factors including age, marital status, social economic status, educational level, perceived health, disease symptoms, activity and function (Gill, Williams, Williams, Butki & Kim, 1997), religion (Ross,1990; Ellison ,1991; Wickrama & Wickrama, 2007), family functioning (Ortz, Foster, Slattery, & Bray, 2004).

1. Age

Developmental state influences individual psychological well-being. Ryff, Keyes, and Hughes (2003) reported that autonomy, environmental mastery, positive relation with others, and self-acceptance are positively related with age, while personal growth, and purpose in life are negatively related with age.

2. Marital status

Most people want a satisfying and healthy relationship; marriage is one factor that can strengthen the relationship. The relationship also has an effect on emotional and psychological well-being of an individual because a good relationship will prevent depression and promote well-being (Lees, 2007). Therefore, married couples have higher levels of emotional and psychological well-being than singles, the divorced and cohabiting couples. A survey carried out by Stack and Enshelman (2006 as cited in Lees, 2007) measuring marital status happiness across 17 nations

using a sample of 18,000 adults concluded that the married couples were happier than those cohabited couples.

3. Social economic status

Psychological well-being is also influenced by the social economic status. People with higher social economic status have a better health and happiness than the people with lower economic status (Bhattacharya, 2004).

4. Education level

The positive association between education and health is well known. Education plays an important role in establishing one's social position and is a means to achieve health. Education works as a distributive function and it is linked closely to the social structure because it elevates individuals' social position and health achievement (Adler & Newman, 2002). Furthermore, education provides the knowledge and life skills that allow an educated people to have an improved access to the information and health promotion resources (Ross & Wu, 1995). Therefore, well and more affluent members of the society tend to live longer and healthier.

Reynolds and Ross (1998) examined the links between the social origins (educational attainment and household income), achieved status, and adult well-being. The study found that the years of educational attainment had positive, significant effects on physical and psychological health, the more years of schooling, the higher will be individual's well-being.

5. Physical activity and function

Physical activity is defined as any bodily movement produced by the skeletal muscles that result in the energy expenditure (Garatachea, Molinero, Garcia, Jimenez, Gallego, & Marques, 2008). Regular physical activity is important for the increase or preservation of aspects of physical functions, which allows the performance of more integrated functional tasks such as the muscle strength and power, balance, flexibility, endurance, or mobility. The study of Garatachea, Molinero, Garcia, Jimenez, Gallego, and Marques (2008) found that physical functions and physical activities are both related to psychological well-being, and the results of

their study emphasize the positive functional and psychological effects of physical activity in the dependent subjects.

6. Religion

Many studies found that religion can decrease the risk of depressive feelings and increase the psychological well-being. Ross (1990) found that individuals with strong religious belief had significantly lower levels of distress than those who have weak religious belief. Ellison (1991) described a correlation between religiosity and psychological well-being; the study found that participants with strong religious faith reported higher level of psychological well-being and fewer negative consequences of traumatic life events. Therefore, higher levels of religious participation should relate to lower levels of PTSD and depressive symptoms (Wickrama & Wickrama, 2007).

7. Family functioning

Family functioning is related to individual's coping strategies, self-esteem, and psychological well-being; the higher the level of family functioning, the more adaptive coping strategies one used and the better one's self-esteem and psychological well-being (Ortz, Foster, Slattery, & Bray, 2004).

Psychological well-being instruments

There are many existing tools to measure psychological well-being including Life Satisfaction Index-Z (LSIZ), Satisfaction With Life Scale (SWLS), Affect Balance Scale (ABS), The General Health Questionnaire (GHQ-12) (McDowel & Newell, 1996), and Ryff's Scales of Psychological Well-Being (RPWB). Life Satisfaction Index-Z (LSIZ) was developed by Neugarten (1961 as cited McDowel & Newell, 1996) to measure the psychological well-being of the elderly. The LSIZ is an 18-items instrument designed to measure the life satisfaction of the older people. There is no data about the reliability of this instrument. However, the LSIZ has a good concurrent validity.

Satisfaction With Life Scale (SWLS) was developed by Diener (1985 as cited in McDowel & Newell, 1996) to assess the subjective life satisfaction in the adults. SWLS consists

of 5 items statement; it refers to the cognitive-judgmental aspects of general life satisfaction. Each item is scored from 1 to 7 ranging from “strongly disagree” to “strongly agree”. Item scores are summed for a total score, which range from 5 to 35, with higher scores reflecting more satisfaction with the life. The internal consistency is very good, with an alpha of .87. This instrument has excellent test-retest reliability, with a correlation of .82 for a two-month period, suggesting its stability.

Affect Balance Scale (ABS) was developed by Bradburn and Noll (1969 as cited in McDowel & Newell, 1996) to measure psychological well-being in the variety of population. The ABS is a 10-item instrument designed to measure the psychological well-being, especially mood state or happiness. The current version yields scores on two distinct conceptual dimensions, positive affect and negative affect. The ABS has shown good to excellent internal consistency in a number of studies with alphas that consistently exceed .80. The ABS has extensive data on concurrent, predictive, and constructs validity. It is correlated in predicted direction with numerous measures including the Depression Adjective Checklist, life satisfaction, and social interaction.

The General Health Questionnaire (GHQ-12) was developed by Golderberg & Williams (1988 as cited in McDowel & Newell, 1996) to measure the psychological well-being in adults. The GHQ consists of 12 item statements. The scale asks whether the respondent has experienced a particular symptom or behavior recently. The internal consistency of the questionnaire was measured using Cronbach's alpha coefficient. The alpha for the whole sample was found to be 0.87 and was the same for both males and females indicating satisfactory results.

Ryff’s Scales of Psychological Well-Being (RPWB) consists of 84 questions. It consists of a series of statements reflecting the six areas of psychological well-being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Respondents rate statements on a scale of 1 to 6, with 1 indicating strong disagreement and 6 indicating strong agreement. Responses are totaled for each of the six categories. For each category, a high score indicates that the respondent has a mastery of that area in his or her life. In other hand, a low score shows that the respondent struggles to feel comfortable with that particular concept. Ryff Scales of Psychological Well-Being is a valid and reliable measure of psychological well-being (Seifert, 2005).

However, all of these instruments were not appropriate for this study because they were developed in the western countries and the items is not appropriate to be used in the Asian population who has different culture and belief especially Achenese people. Therefore, in this study the researcher developed an instrument to measure psychological well-being of the tsunami survivors.

Impact of Tsunami on Psychological Well-Being

Short-term impact of tsunami on psychological well-being

Many researches contain diverse operational definition of psychological well-being, psychological distress, and depression, but the intent of researcher has been the same. Tsunami is a very stressful event, many impacts were found in the initial stage of the tsunami. Major social and demographic shifts were occurred, and the social fabric of communities was severely eroded. Gender, age, extent of personal loss, personal experience in terms of how direct exposure emerged are key factors together with the loss of place, problems of temporary and permanent housing, poor income generation and uncertainty about if and when it would be possible to return to the original home sites and communities. Host communities were also affected, albeit indirectly (Carballo, Heal, & Horbaty, 2006).

Moreover, the tsunami survivors not only have to face the physical injuries and economic losses, but also need to cope with the emotional reactions to the loss of livelihood, loss of loved ones, and the displacement of homes. Senseless losses after devastating natural disasters usually present the psychological challenges to their victims, both children and adults. Therefore, the peoples who are exposed to the disasters often suffer from PTSD symptoms, including anxiety, depression, and behavioral problems (Tuicomepee & Romano, 2006).

Therefore, the tsunami might harm the psychological well-being of the survivors; individuals who are exposed to the disasters can have a risk of developing mental health problems. The most commonly reported disorders are depression (41%), PTSD (22-59%), generalized anxiety disorder (20%-29%), and substance abuse disorders (14-22%). Austin and Godleski (1999 as cited in Veenema, 2007) have examined the rates of psychiatric morbidity by the impact of the disaster on the survivors and/or the bereaved including:

1. The experience of terror or horror when one's own life is threatened or one is exposed to the grotesque or disturbing sights.
2. Traumatic bereavement, which occurs when beloved friends or family members die as a result of a disaster.
3. Disruption of normal living. After disaster, dislocation stress is the most commonly encountered disruption o daily live.

Long-term impact of tsunami on psychological well-being

The long-term psychological impact of tsunami will be more devastating than the physical impact, with the survivors experiencing a grief, guilt and fear. The survivors are in despair; they have lost everything and can see no future; they lost the will to live (Gregor, 2005). Therefore, the tsunami survivors not only need a physical health but they also need the psychological support and mental health promotion in order to cope with their problems and to return to their normal life.

Previous study found that natural disaster caused an increased negative impact on emotional well-being and catastrophic property losses. Even though residential property damage produces material losses, additional emotional strain can occur from the overwhelming task of reestablishing a stable living environment (Saunders, 2001 as cited in Rateau, 2009). Moreover, Rateau (2009) studied about emotional well-being 1 year after the hurricane disaster in 501 participants from Federal Emergency Management Agency (FEMA) designated counties. The study found that two hundred eighty-one (56.9%) participants reported primary residential property damage after the hurricane disaster. Among these participants, 66.7% reported long-term negative impact on emotional well-being.

In long-term period, many tsunami survivors have a potential risk to develop a variety of psychiatric disorders which may threat their psychological well-being. The International Post-Tsunami Study Group examined that even after 20 to 21 months after the tsunami; the people of the Peraliya (a district in the southern province of Sri Lanka) experienced the psychological symptoms. In Peraliya, approximately 2,000 people were died, 450 families became homeless, and 95% of the village was destroyed (Tull, 2008). The majority of people who interviewed also had tremendous damage of their own property (75%), the property of the family members (76%),

and/or the property of friends (72%). The International Post-Tsunami Group found that approximately 21% of the survivors had PTSD, 16% had severe depression, 30% had severe anxiety and 22% had somatic symptoms (or physical symptoms without an apparent medical explanation). The tsunami survivors also had difficulties in their work, social life, and family life which will cause an impact on their psychological well-being (Tull, 2008).

Moreover, Hatthakit and Thaniwathananon (2007), studied the suffering experiences of Buddhist tsunami survivors in Phang- Nga Province, Thailand that was severely affected by the tsunami 2004 with 4,217 deaths. This study was conducted 18 months after tsunami and found that the survivors suffered from physical and psychological problems such as physical pain, anxiety, depression, and post-traumatic stress disorder for different lengths of time. The people who lost a spouse and/or children and those who lost family members reported that they suffered from psychological problems for at least one year. This study suggests that after more than 1 year, the tsunami 2004 still has an impact on the emotional health of the survivors.

The psychological effects of the traumatic events are contagious. A disaster has an impact on the people at progressively greater geographical and temporal distances from the incidence site by a powerful mental ripple effect. The psychological impact of the traumatic events like tsunami depends on the interaction between: the nature of event, the state of the individual's inner world, and the quality of the social context or recovery environment (Hobbs, 1995).

1. The nature of event

Many aspects of a traumatic event like tsunami influence its psychological impact, but particularly whether the victim face death or witnesses the suffering, mutilation or death of the others, especially loved ones. The traumatic impact is related to the perceived level of the threat rather than the objective danger.

2. The person's inner world

People vary greatly in the ways they perceive and react to the traumatic events. Everybody faces adversity at intervals, and the development of an effective coping resources and a resilient personality depends on the constructive resolution of a successive life crises. To some extent, a person's response to challenge will be influenced by the ways in which they were helped to cope with the fear and pain in early life, by the parents and other attached figures.

3. Social context

An individual's capacity to come to the terms with a traumatic experience is greatly influenced by his/her social context. Secure, supportive relationships are essential for the victim's communication and processing of the traumatic experience, and eventual recovery. Those who have no close and emotional relationships are more vulnerable to a post traumatic psychopathology.

Family Support and Psychological Well-Being

Psychosocial health involves both the psychological and social aspects of one's life, and relates the social conditions to mental and emotional health. Mentally healthy people tend to react in the positive ways to situations, while unstable people react negatively to everything in their lives. To facilitate the psychosocial health, it is necessary for one to have special bonds with the people and social support from others.

Family is one of the sources of social support which is an environmental factor that mediates psychological well being (Kendler, 1997). The strongest associations between social support (particularly emotional support) and a health outcome are seen in relation to psychological well-being. Seeman (2007) documented that people who receive greater social support generally have the lower risk of depression and psychological distress. It means that social support can prevent the tsunami survivors from the psychological distress after tsunami.

Moreover, there are numbers of studies about the relationship between social support and psychological well-being. Most of the studies suggested that the social support facilitates the psychological well-being. The study of Wang & Nayir (2006) found that social support was correlated with the psychological well-being of European expatriates. Also, Jinping (2000) found there was a significant positive relationship between the family support and quality of life ($r = .70$, $p < .05$). Her study implied that visual impaired person with the higher level of family support would be more likely to have the higher level of quality of life and higher level in each domain of quality of life in terms of life satisfaction, self-concept, health and functioning, and socioeconomic situation.

Family has essential role on emotional health of the survivors in order to cope with all the stressor. Morse and Five (1998) proposed that adjustment in 175 partners of cancer patients was

positively associated with all three sources of social supports (family, friends and health care providers), as well as the quality of the relationship between the partners. In addition, the study of Payne (2006) about social-psychological resources, social origin, and social support's role on well-being in college freshmen found that there is a positive relationship between social support and psychological well-being. In conclusion, the social support has been shown to have a positive effect on psychological well-being.

Family support is the most important supports in dealing with a disaster like tsunami; when the tsunami survivors have adequate family supports, it will help them to raise esteem and reduce a vulnerability to stress caused by the tsunami. Therefore, family support will facilitate the tsunami survivors in order to have better psychological well-being and it can reduce psychological distress. However, no study could be found regarding family support and psychological well-being among the disaster survivors.

In summary, the tsunami 2004 not only has short-term impact but also long-term impact which can harm the survivors' psychological well-being. The long-term psychological effects of the tsunami can be more devastatating than the physical effect; many survivors are still experiencing a grief, guilt and fear about further disaster. The presence of family support can help the survivors in order to increase their psychological well-being.

CHAPTER 3

RESEARCH METHODOLOGY

Research Design

This descriptive correlation study aimed to identify family support and psychological well-being perceived by the tsunami survivors and to identify the relationships between these two variables.

Population and Setting

The target population for this study was all adult tsunami survivors who were living in Blang Krueng village, Aceh Besar district, Indonesia. This village is one of 130 villages in Aceh Besar district which were severely affected by the tsunami 2004. Blang Krueng village was selected as research setting because the village is a representative setting in order to get eligible samples. In addition, the village gave effortless access as the researcher has connection with this village for providing possibility and cooperation for data collection.

The population of Blang krueng village before tsunami was 1,425 people. The number of deaths in the tsunami 2004 was 210 people, and almost all people lost their houses and properties (LOGICA, 2006). All people in this village are Muslim. People in this village usually practice religious activities including prying and reading Al-quran together in menasah (a place where the people do religious practice and social activities). The role of religion is very important for the people in this village and they always try to follow the entire Islamic role.

After almost four years of tsunami, majority of the people have stayed in permanent house. However, many people still unsatisfied with their new life after the tsunami, especially people who lost their family members.

Sample and Sampling

Sample size

The number of subjects needed for this study was estimated by using power analysis. The accepted minimum level of significance (α) to estimate the number of sample size was .05 with

power (1-β) .80. The values of α and 1-β are the conventional standard for most of nursing studies (Polit & Hungler, 1999). In this study, the researcher used a small effect size (r = .25) to determine the sample size based on the correlation table (Polit & Hungler, 1999). Therefore, the sample size in this study was 126 survivors.

Sampling method

The purposive sampling method was employed in recruiting eligible subjects for the study; the subjects who met the inclusion criteria were recruited. The inclusion criteria for the subjects were as follows:

1. Adults (18 years and above)
2. Tsunami survivors who directly affected by the tsunami in 2004
3. Have family members who were not directly affected by the tsunami 2004
4. Able to communicate in Indonesian language
5. No cognitive impairment and mental disorder

Instrumentation

Demographic and Health Information Questionnaire: The Demographic Data Questionnaire was developed by the researcher. It consisted of 15 items including ethnics, gender, age, marital status, religion, educational level, income level, relationship with family members, type of family, the number of family members, impact of the tsunami 2004, current housing, health problems, perceived health, and difficulty in daily activities.

The Family Support Questionnaire: The Family Support Questionnaire (Appendix B, Part 2), developed by the researcher and colleague (Fithria & Syarifah, 2008) based on the concept of social support proposed by House (1981) was used to measure family support. The questionnaire consisted of four types of family support (emotional, informational, appraisal, and instrumental). There were 19 items including:

1. Emotional support (1, 2, 3, 4, 5, 6)
2. Informational support (7, 8, 9)
3. Appraisal support (10, 11, 12, 13)
4. Instrumental support (14, 15, 16, 17, 18, 19).

Each item was scored from 0 to 4 which 0 = Never, 1 = Sometimes, 2 = Often, 3 = Very Often, 4 = Always. Item scores were summed for a total score and sub total scores which ranged from 0 to 4, and was divided into four levels; low = 0-1, moderate low = 1.01-2, moderate high = 2.01-3 and high = 3.01-4.00.

The Psychological Well-Being Questionnaire: psychological well-being of tsunami survivors was measured by using the Psychological Well-being Questionnaire (Appendix B, Part 3) which was developed by the researcher based on concept of psychological well-being proposed by Ryff (1995). The Psychological Well-Being Questionnaire consisted of 30 items including:

1. Autonomy (1, 2, 3, 4, 5, 6)
2. Environmental mastery (7, 8, 9, 10, 11)
3. Personal growth (12, 13, 14, 15, 16)
4. Positive relations with others (17, 18, 19, 20, 21, 22, 23)
5. Purpose in life (24, 25, 26, 27, 28)
6. Self-acceptance (29, 30, 31, 32, 33, 34)

The items consisted of positive items (4, 5, 7, 10, 14, 15, 16, 17, 18, 19, 22, 24, 27, 28, 29, 30, 31, 32, 33, 34) and negative items (1, 2, 3, 6, 8, 9, 11,12, 13, 20, 21, 23, 25, 26). Each item was scored from 0 to 4 for positive items which 0=Strongly disagree, 1 = Disagree, 2 = do not know, 3 = Agree, 4 = Strongly agree and negative items were exactly the opposite of it; 0 = Strongly agree, 1 = Agree, 2 = Do not know, 3 = Disagree and 4 = Strongly disagree. Item scores were summed for a total and sub total score which range from 0 to 4, and were divided into three levels; low = 0-1.33, moderate = 1.34-2.67 and high = 2.68-4.00.

Translation of the instruments

The original instrument of both the Family Support Questionnaire and the Psychological Well-being Questionnaire were developed in English. Then, the instruments were content validated and approved by three experts from the Faculty of Nursing, Prince of Songkla University, Thailand. After validation, the instruments were translated into Indonesian language by three bilingual translators from Nursing Science Program, Syiah Kuala University, Banda Aceh, Indonesia and the instruments were identified and clarified for the discrepancies. Finally, the instruments were revised based on the suggestions from the translators.

Validity of the instruments

The validity of the instruments was examined by three experts from Faculty of Nursing, Prince of Songkla University, Thailand. The first expert was a lecturer in the field of community nursing, the second was a lecturer who was in the field of psychiatric nursing, and the third was a lecturer who was an expert in tool development. Each item was examined for its degree of relevance with its related construct. The instruments were modified based on the suggestions and recommendations from all experts. Then, the researcher calculated the content validity index (CVI) of the instruments yielding the CVI of .87 and .89 for the Family Support Questionnaire and the Psychological Well-Being Questionnaire, respectively.

Reliability of the instruments

The reliability of the instruments was analyzed by using the statistical test of Cronbach's Alpha with an accepted value of .70 since these were new instruments. The reliability test was performed to test the Indonesian version of the instruments with 20 subjects who had similar criteria to the real subjects of this study (is one method which is the most widely used for testing the internal consistency of the instruments (Polit & Hungler, 1999)). The reliability of the Family Support Questionnaire was .79 and the Psychological Well-being Questionnaire was .72.

Protection of Human Rights

In this study, there was a potential harm for the subjects because they may develop psychological distress such as fear, anxiety, flashback, sadness, or anger when responded to the questionnaires. However, during the actual data collection, none had developed these symptoms. The subjects were informed that they can refuse to participate or withdraw from this study at anytime without any negative consequences. The identities of all subjects were hidden and coded. Approval was obtained from the Research Ethics Committee of the Faculty of Nursing, Prince of Songkla University, Thailand. Before collecting the data, the researcher asked permission from the head of the village. All subjects were given both written and oral information about this study, then, they were asked to give verbal or written informed consent.

Data Collection Procedure

Data were collected at almost 4 years after the tsunami, from November 20, 2008 to January 20, 2009. The researcher collected the data without research assistance. The data collection procedures were divided into two phases; preparation phase and implementation phases.

Preparation phase

1. Asking the approval of the research proposal from the Research Ethics Committee of the Faculty of Nursing, Prince of Songkla University.
2. The researcher met the head of the village to ask permission for data collection.
3. The researcher explained about the objectives of the study to the head of the village.
4. The researcher asked the head village to identify the subjects who met the inclusion criteria.

Implementation phase

1. The researcher approached the potential subjects at their houses.
2. Each potential subject was informed about the objectives of the study.
3. The subjects who agreed to participate in this study then were given either verbal or written consent.
4. The researcher explained how to complete the questionnaires.
5. The researcher asked the subjects to complete the questionnaires.

Data Analysis

Data were analyzed by using descriptive statistics (means, standard deviations, frequencies, ranges, percentages) to assess the demographic variables, family support and psychological well-being. Then, Pearson's product moment correlation coefficient (r) was used to test the relationship between family support and psychological well-being among the tsunami survivors. The researcher tested the assumption by using Kolmogorov- Smirnov test; the result showed that the distribution was normal.

CHAPTER 4

RESULT AND DISCUSSION

The findings of this study are presented as follows: demographic characteristics, the level of family support, the level of psychological well-being, and the relationship between family support and psychological well-being.

Results

*Demographic characteristic and health information of the subject*s

The subjects consisted of 126 adult tsunami survivors. Most of the subjects were in the range of 18-40 years old (64.3%) with a mean age of 37.1 (SD = 12.9). The majority of the subjects were female (90.5%). Furthermore, all of the subjects were Muslim and 99.2% of them were Achenese. With regard to the level of education of the subjects, 42.9% of the subjects had high school level education. More than sixty percent (63.5%) of the subjects were married. About two-thirds of the subjects (68.2%) had a family income no more than Rp 500,000 (Table 1).

With regard to the subjects' relationship with their family, most of the subjects (96.82%) had a good relationship with the immediate family, 77.8% had single family. Most of them (71.4%) had about 1-5 family members. Around one-thirds of the subjects (35.7%) experienced loss of family as impact of the tsunami 2004. Approximately 86% of the subjects lost their properties and 8.7% of the subjects lost their jobs. More than one-thirds of the subjects (36.5%) were housewives. Moreover, most of the subjects (92.9%) were staying in permanent houses (Table 1).

Regarding the health problems of the subjects, majority of them reported that they did not experience health problems (63.5%). In addition, most of the subjects who had health problems reported suffering from rheumatoid arthritis (32.6%), cough (21.7%), hypertension (19.6%), and gastro intestinal problems (10.9%). With regard to perceived health status, 79.4% of the subjects perceived good health status. Then, majority of the subjects (93.6) reported that they did not have any difficulty in performing daily activity after tsunami (Table 1).

Table 1

Frequency and percentage of demographic characteristic among the tsunami survivors (N=126)

Characteristics	Frequency	Percentage
Age (years)		
18 -30	50	39.7
31- 40	31	24.6
41- 50	18	14.3
≥51	27	21.4
Min = 18, Max = 70		
$\overline{X}$ = 37.1, SD = 12.9		
Gender		
Female	114	90.5
Male	12	9.5
Ethnic		
Achenese	125	99.2
Javanese	1	0.8
Religion		
Muslim	126	100.0
Level of Education		
No formal education	7	5.6
Elementary school	43	34.1
High school	54	42.9
College or above	22	17.4

Table 1 (continued)

Characteristics	Frequency	Percentage
Marital status		
Married	80	63.5
Single	22	17.5
Widowed	19	15.1
Divorced	5	3.9
Monthly family income		
≤Rp 500,000	86	68.2
Rp 500,001 – Rp1,000,000	27	21.4
Rp 1,000,001 – Rp 2,000,000	9	7.1
>Rp 2,000,000	4	3.2
Relationship with family		
Good	122	96.8
Fair	4	3.2
Type of family		
Single family	98	77.8
Extended family	28	22.2
Number of family members		
1-5	90	71.4
More than 5	36	28.6

Table 1 (continued)

Characteristics	Frequency	Percentage
Impact of the tsunami 2004		
Loss of family		
- No	81	64.3
- Yes	45	35.7
Loss of property		
- No	18	14.3
- Yes	108	85.7
Loss of occupation		
- No	115	91.3
- Yes	11	8.7
Occupation		
Housewife	46	36.5
Businessman/businesswoman	35	27.8
Farmer	19	15.1
Private employee	15	11.1
Government employee	8	6.3
Others	3	2.4
Retired	1	0.8
Current housing		
Permanent	117	92.9
Temporary	9	7.1

Table 1 (continued)

Characteristic	Frequency	Percentage
Health problems		
No	80	63.5
Yes	46	36.5
Rheumatoid arthritis	15	32.6
Cough	10	21.7
Hypertension	9	19.6
Gastro intestinal problems	5	10.9
Asthma	4	8.7
Diabetes mellitus	2	4.3
Cardiovascular diseases	1	2.2
Perceived health status		
Good	100	79.4
Fair	25	19.8
Poor	1	0.8
Difficulty in performing daily activity after the tsunami		
No	118	93.6
Yes	8	6.4

The level of family support

The total score of family support was at a moderate high level (M = 2.1, SD = 0.6). Every dimension of the family support was at a moderate high level except instrumental support which was at a moderate low level. The highest mean score was for informational support (M = 2.4, SD = 0.7), followed by appraisal support (M = 2.2, SD = 0.7), emotional support (M = 2.1, SD = 0.7), and instrumental support (M = 1.8, SD = 0.9) respectively (Table 2).

Table 2

Means, standard deviations, and level of family support among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Family support	M	SD	Level
1. Informational support	2.4	0.7	Moderate high
2. Appraisal support	2.2	0.7	Moderate high
3. Emotional support	2.1	0.7	Moderate high
4. Instrumental support	1.8	0.9	Moderate low
Total	2.1	0.6	Moderate high

1. Informational support

All of the items in informational support were scored at a moderate high level, with the mean scores ranged from 2.2-2.5. The first two items had an equal mean score which was the highest mean score including “My family gives me an advice to deal with social problems related to the tsunami” (M = 2.5, SD = 1.0) and “My family gives me suggestion how to figure out my life” (M = 2.5, SD = 0.9) (Table 3).

Table 3

Means, standard deviations and level of informational support among the tsunami survivors in Aceh Besar district-Indonesia (N = 126)

Informational support	M	SD	Level
1. My family gives me an advice to deal with social problems related to the tsunami	2.5	1.0	Moderate high
2. My family gives me suggestion how to figure out my life	2.5	0.9	Moderate high
3. My family leads me how to get other aid resources to solve the tsunami problems.	2.2	1.0	Moderate high

2. Appraisal support

Two items in appraisal support were scored at a moderate high while the others two items were scored at a moderate low level. The item with the highest mean scores was" My family states that she or he appreciates me so much" (M = 2.3, SD = 1.0). The lowest mean score was on the item "My family tells me that I am a lucky person who have family members to share the feeling "(M = 1.8, SD = 0.9) (Table 4).

Table 4

Means, standard deviations, and level of appraisal support among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Appraisal support	M	SD	Level
1. My family states that she or he appreciates me so much	2.3	1.0	Moderate high
2. My family tells me that I have ability to rearrange my new life same as other people	2.2	0.9	Moderate high
3. My family gives me a positive feedback after doing something	1.9	0.8	Moderate low
4. My family tells me that I am a lucky person whose have family members to share the feeling.	1.8	0.9	Moderate low

3. Emotional support

All of the items in emotional support were scored at a moderate high level except on the item "My family holds me in the high esteem" (M = 1.6, SD = 1.2) which was scored at a moderate low level. The first three items had an equal mean score that was the highest mean score including "My family really listens to me when I talked about my feeling" (M = 2.3, SD = 1.0), "My family's action makes me feel comfortable to disclose my feeling" (M = 2.3, SD = 0.9), and "My family is really concerned about my feeling of lost" (M = 2.3, SD = 1.0) (Table 5).

Table 5

Means, standard deviations and level of emotional support among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Emotional support	M	SD	Level
1. My family really listens to me when I talked about my feeling	2.3	1.0	Moderate high
2. My family's action makes me feel comfortable to disclose my feeling	2.3	0.9	Moderate high
3. My family is really concerned about my feeling of lost	2.3	1.0	Moderate high
4. My family expresses his/her loves to me	2.2	0.9	Moderate high
5. My family really tries to understand all of my feeling	2.1	0.9	Moderate high
6. My family holds me in the high esteem.	1.6	1.2	Moderate low

4. Instrumental support

Two items in instrumental support were scored at a moderate high level while the other four items were scored at a moderate low level. The first two items had an equal mean score that was the highest mean score including "My family wants to share his/her time when I needed" (M = 2.1, SD = 1.0), and "My family gives me foods and grocery things when I needed" (M = 2.1, SD = 1.2). The two lowest mean score were for items "My family provides me house equipment" (M = 1.5, SD = 1.2) and "My family buys me new clothes" (M = 1.4, SD = 1.0) (Table 6).

Table 6

Means, standard deviations and level of instrumental support among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Instrumental support	M	SD	Level
1. My family wants to share his/her time when I needed	2.1	1.0	Moderate high
2. My family gives me foods and grocery things when I needed	2.1	1.2	Moderate high
3. My family gives me money when I faced financial problems	1.9	1.1	Moderate low
4. My family provides me transportation when I needed	1.6	1.1	Moderate low
5. My family provides me house equipment	1.5	1.2	Moderate low
6. My family buys me new clothes.	1.4	1.0	Moderate low

The level of psychological well-being

The total mean score of psychological well-being was at a high level (M = 2.8, SD = 0.3). Every dimension of the psychological well-being had mean score at a high level except autonomy (M = 2.5, SD = 0.4) which had a mean score at a moderate level. The two dimensions with the highest mean scores were purpose in life (M = 3.1, SD = 0.4) and self-acceptance (M = 3.0, SD = 0.4) respectively followed by positive relation with others (M = 2.8, SD = 0.4), personal growth (M = 2.8, SD = 0.5) and environmental mastery (M = 2.8, SD = 0.4) (Table 7).

Table 7

Means, standard deviations, and level of psychological well-being among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Psychological well-being	M	SD	Level
1. Purpose in life	3.1	0.4	High
2. Self-acceptance	3.0	0.4	High
3. Positive relations with others	2.8	0.4	High
4. Personal growth	2.8	0.5	High
5. Environmental mastery	2.8	0.4	High
6. Autonomy	2.5	0.4	Moderate
Total	2.8	0.3	High

1. Purpose in life

All of the items in purpose in life had the mean scores at a high level. The top three items with the highest mean scores were “It is lucky to survive from the tsunami” (M = 3.4, SD = 0.7), “I have a goal to be happy in my future” (M = 3.3, SD = 0.7) and “My future is hopeful” (M = 3.1, SD = 0.7) (Table 8).

Table 8

Means, standard deviations and level of purpose in life among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Purpose in life	M	SD	Level
1. It is lucky to survive from the tsunami	3.4	0.7	High
2. I have a goal to be happy in my future	3.3	0.7	High
3. My future is hopeful	3.1	0.7	High
4. I have a good sense of what it is I am trying to fulfill in my life	3.0	0.6	High
5. My daily activity is meaningful for me.	3.0	0.9	High

2. Self-acceptance

All of the items in self acceptance had the mean scores at a high level except one item "My life was going on my way" that had a mean score at a moderate level. The two item with the highest mean score were" When I look at my past life, I am pleased about how things have turned out" (M = 3.3, SD = 0.6), and "I feel confident about myself" (M = 3.1, SD = 0.6) (Table 9).

Table 9

Means, standard deviations and level of self-acceptance among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Self-acceptance	M	SD	Level
1. When I look at my past life, I am pleased about how things have turned out	3.3	0.6	High
2. I feel confident about myself	3.1	0.6	High
3. I feel satisfied with my achievement in life	3.1	0.7	High
4. I like most aspect of my personality	3.1	0.6	High
5. When I compare myself to the others, I feel good about who I am	2.8	0.8	High
6. My life was going on my way.	2.6	0.8	Moderate

3. Positive relation with others

All of the items in positive relation with others had the mean scores at a high level except one item, “I have a lot of friends,” had a mean score at a moderate level. The top three item with the highest mean score were” I am willing to listen when the others share their problems to me” (M = 3.2, SD = 0.5), “I am willing to share my time with others” (M = 3.1, SD = 0.6), and “I am an easy going person” (M = 3.1, SD = 0.5) (Table 10).

Table 10

Means, standard deviations and level of positive relations with others among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Positive relation with others	M	SD	Level
1. I am willing to listen when the others share their problems to me	3.2	0.5	High
2. I am willing to share my time with others	3.1	0.6	High
3. I am an easy going person	3.1	0.5	High
4. I have warm and trusting relationship with others	3.0	0.7	High
5. I have some people who listen to me	3.0	0.9	High
6. I have an ability in maintaining close relationship with others	2.9	0.9	High
7. I have a lot of friends.	1.8	0.9	Moderate

4. Personal growth

All of the items in personal growth had the mean score at a high level. The two highest mean scores were “I always try to make a big change in my life” (M = 3.0, SD = 0.6), and “I feel that I have improved my knowledge and ability in my life “(M = 3.0, SD = 0.7) (Table 11).

Table 11

Means, standard deviations and level of personal growth among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Personal growth	M	SD	Level
1. I always try to make a big change in my life	3.0	0.6	High
2. I feel that I have improved my knowledge and ability in my life	3.0	0.7	High
3. I feel my life is a wonderful adventure	2.8	0.8	High
4. I want to try new way of doing things	2.7	0.8	High
5. I am interested in activities that will change the life style.	2.7	0.8	High

5. Environmental mastery

All of the items in environmental mastery had the mean score at a high level except one item "I am able to manage my environment that is satisfying to me" that had the mean score at a moderate level. The two highest mean scores items were "I feel no pressure with my environment" (M = 3.1, SD = 0.8) and "I do not feel stressful being in my environment" (M = 3.1, SD = 0.8) (Table 12).

Table 12

Means, standard deviations and level of environmental mastery among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Environmental mastery	M	SD	Level
1. I feel no pressure with my environment	3.1	0.8	High
2. I do not feel stressful being in my environment	3.1	0.8	High
3. I feel fit very well with the people and the community around me	3.0	1.0	High
4. I think I am in charge of the situation in which I am living now	2.7	1.0	High
5. I am able to manage my environment that is satisfying to me.	2.2	0.8	Moderate

6. Autonomy

Two items in the autonomy had the score at a high level including “My decisions are not influenced by others” (M = 2.8, SD = 0.5) and “For me, being happy with myself is more important than having others approve of me” (M = 2.7, SD = 0.9). The other items had the mean scores at a moderate level (Table 13).

Table 13

Means, standard deviations and level of autonomy among the tsunami survivors in Aceh Besar district, Indonesia (N = 126)

Autonomy	M	SD	Level
1. My decisions are not influenced by others	2.8	0.5	High
2. For me, being happy with my self is more important than having others approve of me	2.7	0.9	High
3. I judge myself based on what I think important, not based on what the other people think is important	2.6	0.9	Moderate
4. I do not change my mind about decisions although my friend or family disagree	2.4	0.8	Moderate
5. I am able to voice opinion to other people	2.3	1.0	Moderate
6. I don't care about what the people think of me.	2.2	0.9	Moderate

The relationship between family support and psychological well-being

The relationship between family support and psychological well-being is presented in Table 14. The finding suggested that there was a significant positive relationship between the family support and psychological well-being ($r = .37$, $p<.01$). Moreover, the significant correlations were also found among the dimensions of family support and components of psychological well-being. Informational support was significantly correlated with every dimensions of psychological well-being except with self-acceptance.

Informational support was significantly and positively low correlated with the purpose in life ($r =. 49$, $p < .01$), low correlated with the positive relation with others ($r = .38$, $p<.01$), with personal growth ($r = .25$, $p<.01$), with environmental mastery ($r = .37$, $p<.01$), with autonomy

(r = .24, p<.01). Appraisal support was significantly low correlated with the purpose in life (r = .37, p<.01), and personal growth (r = .31, p<.01). Emotional support was statistically low correlated with the purpose in life (r = .30, p<.01). Instrumental support was statistically significant low correlated with the purpose in life (r = .38, p<.01), and personal growth (r = .18, P<.05) (Table 14).

Table 14

Pearson's product moment correlation coefficients between family support and psychological well-being (N = 126)

Family support	Psychological well-being						
	1	2	3	4	5	6	Total
Informational support	.49**	.10	.38**	.25**	.37**	.24**	
Appraisal support	.37**	.02	.14	.31**	.12	.07	
Emotional support	.30**	.10	.10	.09	.15	.08	
Instrumental support	.38**	.15	.15	.18*	.19*	-.14	
Total							.37**

Note: * p<. 05

** p<. 01

1 = Purpose in life

2 = Self-acceptance

3 = Positive relation with others

4 = Personal growth

5 = Environmental mastery

6 = Autonomy

Discussion

The subjects in this study were recruited in Blang Krueng village, Aceh Besar district Indonesia. Majority of the subjects were females (90.5%) because during data collections most of males were not available at home. The findings are discussed following three main parts; the level of family support, the level of psychological well-being, and the relationship between family support and psychological well-being.

The level of family support

The findings showed that the level of family support of the subjects was at a moderate high level, similar to the level of its component except instrumental support which was at a moderate low level (Table 2). However, there are some reasons that contributed to the findings of family support in this study.

The moderate high level of family support in this study can be explained because of the subjects' characteristics. Achenese families have a strong bond and good relationship with family members. The family characteristic in Aceh, Indonesia is similar to the family characteristics in other Asian countries where almost all families are tied by the blood relation and there is an intimate relationship among the family members. When family members face some problems, the other family members try their best to provide various assistances to help him/her in dealing with the problem.

The second reason that might influence the moderate high level of family support is the value of Achenese people. Family is the most significant support for Achenese people. They would like to do everything in order to help their family. Even almost four years has gone after the tsunami struck the family release that the tsunami survivors still need assistance for particular problems as an impact of tsunami. The survivors need the support from their family in order to return to their normal life. Therefore, family members who were not affected by tsunami 2004 tried to provide help and support for the survivors.

The highest score of family support perceived by the tsunami survivors was for the informational support ($M = 2.4$, $SD = 0.7$). It means that the family provided more information to the survivors compare with the other supports. This can be explained because the family perceived that informational support was the most important support at the current time because

in the long term impact, the survivors needed advice and suggestions from their family for rearrange their new life while the other supports were needed more in the short term impact of the tsunami. It can be seen in two items of the informational support which had the highest mean scores among all items including “My family gives me an advice to deal with social problems related to the tsunami’ (M = 2.5, SD = 1.0), and “My family gives me suggestion how to figure out my life” (M = 2.5, SD = 0.9).

The lowest score of family support perceived by the tsunami survivors was for the instrumental support (M = 1.8, SD = 0.9). It might be because the survivors have received the instrumental support from many donors that help to build Aceh back better. Fifteen donors have come together to pool their grant assistance in a US$525 million Multi-Donor Fund for Aceh and Nias, cochaired by the European Commission (the largest donor), the World Bank and the BRR. The Asian Development Bank launched the Earthquake and Tsunami Emergency Support Project with its own US$300 million grant. And major bilateral programs of grants and soft loans have been offered by the Australia-Indonesia Partnership for Reconstruction and Development, the Governments of Japan and Germany, USAID, and many other generous governments from around the globe. International NGOs and organizations such as the Red Cross/Red Crescent, CARE, CARDI, Catholic Relief Services, MercyCorps, Oxfam, Save the Children, and World Vision have raised record funds to support ongoing relief and recovery efforts (World Bank Group, 2009). After tsunami struck, they came to Aceh to immediately provide many daily needs for the tsunami survivors such as house equipments, food and clothes and some of the organizations also provided money for the survivors. At the current time family might perceive that this kind of support already provided by the others, therefore family did not provide many instrumental supports. It can be seen in one item of the instrumental support which was the lowest mean score “My family buys me new clothes” (M = 1.4, SD = 1.0).

Family is the most significant source of support especially in the stressful life events because it can raise esteem and reduces the vulnerability of stress (Sarafino, 1994 as cited in Manji, Maiter & Palmer, 2005). Otto (1963 as cited in Newman, 2007) described the value of family strengths as a healing strategy. The presence of family support can also help the tsunami survivors to cope with the stressful experience as an impact of the tsunami 2004.

The level of psychological well-being

Findings of the study showed that the level of psychological well-being among the tsunami survivors was at a high level. The first reason that might contribute to the high level of psychological well-being of the subjects is the characteristic of the subjects such as religion and belief. All of the subjects were Muslims. Muslims believe that God (Allah) gives us life and God also controls our life. Islam means complete and peaceful submission to the will of Allah (God) and obedience to His law (Gulam, 2003; Hooker, 1996; Maulana, 2002). Moreover, it is well-known that Indonesia is a mainly Muslim nation and Achenese people have a strong religion belief. This was supported by the role of Islamic Syariah (Islamic law) in Aceh since 2001. Religion is an important constituent of culture or the way of the life of society. Even though the scale of loss as a result of tsunami was high; loss of family member (35.7%) and loss of property (85.7%), the tsunami survivors were recovering well, this might be influenced by the religion. Religion can be a major source of ego support. Religion usually includes a community of shared beliefs, offers support and structure for coping with stressful event. It may also enhance the positive experiences, such as hope and optimism (Salem, 2006). Existing studies have found that the mental health to be related to the religiosity (Maselko & Kubzansky, 2006; Genia, 1996; Ake & Horne, 2004; Paek, 2006). Dezutter et al (2006) also found that religious attitudes or orientations can have a significant effect on the psychological well-being and/or psychological distress.

Furthermore, Ross (1990) found that individuals with strong religious belief had significantly lower levels of distress than those who have weak religious belief. Ellison (1991) described a correlation between the religiosity and psychological well-being, the study found that participants with strong religious faith reported a higher level of the psychological well-being and fewer negative consequences of traumatic life events. Previous research findings suggested that religious participation through ceremonies serves as a potential compensatory mechanism that decreases the risk of depressive feelings. The study of Hatthakit & Thaniwathananon (2007) found that religion play an important role in health perception and spiritual health. Therefore, higher levels of religious participation should relate to lower levels of PTSD and depressive symptoms (Wickrama & Wickrama, 2007).

The second reason that might contribute to the high level of psychological well-being is the marital status. Most of the subjects (63.5%) were married. Marriage can strengthen the relationship which has an effect on the emotional and psychological well-being. Married couples have the higher levels of emotional and psychological well-being than singles, divorced and cohabiting couples (Lees, 2007). The finding of this study was consistent with the survey carried out by Stack and Enshelman (2006 as cited in Lees, 2007) for measuring marital status happiness across 17 nations by using a sample of 18,000 adults. They found that the married couples were happier than cohabited couples. In the life threatening condition like the tsunami, married people could share their feeling with their spouse, and they could help each other to cope well with the stressor.

The third reason that might influence the high level of psychological well-being is the family relationship. Majority of the subjects (96.8%) had a good relationship with the family. Family is the main building block of a community; family structure and upbringing determines the social character and personality of any given society. Family is where we all learn: love, caring, compassion, ethics, honesty, fairness, common sense, reason, peaceful conflict resolution and respect for ourselves and others, which are the vital fundamental skills necessary to live an honorable and prospers life in harmony, in the world community (Maskanian, 2008). Furthermore, family functioning is related to the individual's coping strategies, self-esteem, and psychological well-being; the higher level of family functioning will result in more adaptive coping strategies which one can use for the better self-esteem and psychological well-being (Ortz, Foster, Slattery, & Bray, 2004).

The fourth reason that can explain the finding about the high level of psychological well-being is the health problems. Most of the subjects (63.5%) did not have any health problems. Moreover, majority of the subjects (79.4%) perceived a good health status. It can be interpreted that people who do not have any health problems will have better psychological well-being than people who have any diseases. Someone who has any disease or health problems needs to cope with all of the negative impacts of the disease such as depression, anxiety and uncertainty that might influence their psychological well-being.

The last reason that might contribute to this finding is that the study was conducted after almost four years of the tsunami and by that time the impact of tsunami had gone. It is consistent

with the study of Austin Godleski, (1999 as cited in Veenema, 2007) which found that more than half (54%) of individuals exposed to the disaster developed psychiatric symptoms immediately after a disaster, and that number dropped to 41% by 10 weeks, and 22% by 1 year.

One surprising finding in this study regarding to the psychological well-being of the subjects was in the autonomy sub scale which found to be at a moderate level while the other sub scales including purpose in life, self-acceptance, positive relations with others, personal growth, and environmental mastery were at a high level. Autonomy is a choice of free-will; it is a choice to be in charge of the self only. It means that the people have freedom to be in charge of their own lives, choosing where they live, with whom they spend time and what they do (Hadlock, 2009).

The finding about a moderate level of autonomy sub scale might be because of the characteristics of the subjects such as gender and religion. Most of the subjects were women (90.5%) and all of the subjects were Muslim. In Asian culture, women have less autonomy than men and men usually act as decision maker in the family. In Achenese society, most of married women usually depend on their husbands. Women have the role to be passive and to adhere to husband‘s family, be subservient to the men, performed domestic chores and bear the children (Nguyen, 2002). In the Islamic perspective, man is the leader for the woman (Ghani, 2003).

Moreover, majority of the subjects were housewives (36.5%). It means that most of the subjects were not working to earn money. Economic participation has been regarded as a key factor in the process of empowerment of women. It has been argued that women's wage work will enhance their bargaining power in the family, provide some financial independence from men, promote independence and self-esteem, give women more decision making power in the home, promote more sharing of household chores, and prepare the way for class consciousness and collective organizing among women (Gordon, 1996). In the present study context, most of the subjects were financially rely on their husbands

Furthermore, this finding also related to the culture of the subjects, who live in the Asian country. It has known that western people are more individualistic compare with the Asian people who are more socialistic. Mclean (2008) stated that the Asian culture values on interdependence, mutual cooperation, reliance on relationships, and interconnection between people and the universe. On the other hand, the Western culture values on independence, self reliance, autonomy, and self-determination. Therefore, in this study, the level of autonomy sub scale of the subjects

was not as high as the other sub scales. However, in the Asian culture the people might not expect to have a high autonomy, they prefer to live dependently, especially women. They would like to share everything with their spouse, family, and friends. When they face some problems, they ask someone before they make decision. Therefore, even though the subject autonomy only ranked in a moderate level, the others sub scale were ranked at a high level, then, in general they also had the high level of psychological well-being with a total mean score of 2.8.

The relationship between family support and psychological well-being

The hypothesis in this study was that there is a positive relationship between the family support and psychological well-being among the tsunami survivors. Pearson correlation coefficient was used to test the hypothesis and the result showed that there was a significantly low positive correlation between the family support and psychological well-being ($r =. 37$, $p< .01$). It means that the hypothesis was accepted.

The finding about the positive relationship between family support and psychological well-being can be explained as follows. Family support is considered as social support from family. Family support can enhance individual health and psychological well-being by meeting important human needs. In addition, family support can change the individual's feeling and attitudes to stressful event; this can increase the psychological well-being. In addition, family support could buffer stress and increase the tsunami survivors coping ability and help them to enhance their psychological well-being (Cohen, 1985).

As family support is considered as social support from family, the finding was consistent with previous study about the impact of social support on the psychological well-being. It was found that social support was correlated with the psychological well-being of European expatriates (Wang & Nayir, 2006). Family support is one source of social support; it means that the family support should be also correlated with the psychological well-being.

Psychological well-being is one component of quality of life (Marcus, 2002). Previous study found that the family support was correlated with the quality of life; it means that the family support should be also correlated with the psychological well-being. One study among visual impaired patients by Jinping (2000) found there was a significant positive relationship between the family support and quality of life ($r = .70$, $p< .05$). Her study implied that visual impaired

person with the higher level of family support would be more likely to have the higher level of quality of life and higher level in each domain of quality of life in terms of life satisfaction, self-concept, health and functioning, and socioeconomic situation. Moreover, Friedman (1993) suggested that both emotional and instrumental support from family members were related to more satisfaction with life than non-family sources. Psychological well-being is often interchangeably used with the psychological health, mental health, and emotional health (Smith, Segal, & Segal, 2008).

The finding of this study was also in accordance with the study of Yimin (2000) which showed that there was a significant and strong positive relationship between the social support and the quality of life. Family support is similar to the social support except the source of support, and since the psychological well-being is considered as one component of quality of life, so the family support should be also correlated with the psychological well-being.

Moreover, further analysis of this study indicated that the informational support was significantly correlated with the dimensions of psychological well-being including purpose in life ($r = .49$, $p < .01$), positive relation with others ($r = .38$, $p < .01$), personal growth ($r = .25$, $p < .01$), environmental mastery ($r = .37$, $p < .01$) and autonomy ($r = 24$, $p < .01$). This finding is consistent with the previous study in the post mastectomy patients which found that the informational support has positive effect on the psychological well-being of the post mastectomy patient (Rui, 1999). The informational support from family members provides the tsunami survivors with suggestion, advice, and alternative means for solving problems.

In addition, appraisal support was also found to be correlated with the two components of psychological well-being. The appraisal support was statistically significant low correlated with purpose in life ($r = .37$, $p < .01$) and with personal growth ($r = .31$, $p < .01$). An appraisal support from family has great significance for the overall psychological well-being of the tsunami survivors. The finding of this study is consistent with the previous study which found that the proportion of positive appraisals predicted long-term goals and plans and psychological well-being at bereavement. Positive appraisals were correlated with positive states of mind. Positive appraisals were negatively correlated with depressive mood (Stein, Folkman, Trabasso, & Richards, 2006). The quality of appraisal support will influence and help the survivors as well as

their expectations about their future life. Adequate appraisal support will also enhance the life satisfaction and psychological well-being of the survivors.

Emotional support also had a significant correlation with one dimension of the psychological well-being. The emotional support was statistically significant positive low correlated with the purpose in life ($r = .30$, $p<.01$). This finding is supported by previous study of Matsunaga (2008) in bullied victims. The results of the study indicated that emotional support generated positive appraisals, which, in turn, enhanced long-term well-being. Furthermore, one study among Asians in Asia (Japanese and Filipinos) found that perceived emotional support positively predicted subjective well-being (Uchida, Kitayama, Mesquita, Reyes, & Morling, 2008). Emotional support from friends and emotional support from family are related to well-being (Sherman, de Vries, & Lansford, 2000; Vandervoort, 2000). It could be concluded that the emotional support has a significant impact on the psychological well-being of the tsunami survivors. An adequate emotional support will enhance individual's purpose in life and also the psychological well-being.

Instrumental support was statistically significant positive correlated with the purpose in life ($r = .38$, $p<.01$), personal growth ($r = .18$, $p<.05$), and environmental mastery ($r = .19$, $p<.05$). As the literature consistently notes, instrumental support from others and coping resources such as high self-esteem enable a person to adapt with new situational demands, lower stress associates with those demands, and, thus exhibit less physical and psychological distress (Pearlin, Lieberman, Menaghan, & Mullen, 1981; Thoits, 1995). There is a significant inverse relationship between the depression and psychological well-being. Therefore, the finding of the current study also supported by previous study of Robicheaux (2003) which found that the instrumental support exert significant affects on the psychological well-being; perceived adequacy of the instrumental support decreases reports of depression. The presence of instrumental support from family will help the tsunami survivors to cope with problems especially related to financial problems after the tsunami.

In summary, the findings of this study showed that the family support has a significantly positive low correlation with the psychological well-being. Tsunami survivors experience a multitude of losses that affected their psychological well-being. The presence of family support helped the survivors to cope with the stressor and promoted their psychological well-being.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This descriptive correlational study was proposed to describe the level of family support, the level of psychological well-being, and to examine the relationship between the family support and psychological well-being. One hundred twenty six adult tsunami survivors, who were living in one village of the tsunami impacted area, were recruited purposively. The subjects were requested to fill one set of questionnaires which consists of three parts: Demographic and Health Information Questionnaire, Family Support Questionnaire, and Psychological Well-Being Questionnaire. The instrument was developed by the researcher and colleague (Fithria & Syarifah, 2008); it was evaluated for its content validity by three experts. A pilot study was conducted and the desired alpha coefficients of .79 (family support) and .72 (psychological well-being) were reached. The data were analyzed by using descriptive and correlational statistics.

Summary of the Study Findings

The mean score of age of the subjects was 37 years old. Most of them (39.7%) were in 18-30 year age group and almost all of them (90.5%) were female. Regarding to the ethnic of the subjects, majority of them (99.2%) were Achenese and all of them were Muslims. Their level of education was mainly elementary school (34.1%) and most of the subjects (63.5%) were married. Then, majority of them had a family income no more than Rp 500,000. Moreover, most of the subjects (96.8%) reported that they had a good relationship with family and 77.8% of the subjects were living with single family. Regarding to the number of family members, majority of the subjects (71.4%) had 1-5 family members. Regarding to the impact of the tsunami, 35.7% of them reported a loss of family, 85.7% were reported a loss of properties, and only 8.7% were reported a loss of jobs. Most of the subjects (36.5%) were housewives. Furthermore, majority of the subjects (92.9%) were staying in permanent housing. Regarding to the health problems, most of the subjects (63.5%) reported that they did not have any health problems. In addition, majority of the subjects (79.4%) perceived a good health status and most of them (93.6%) did not have any difficulty in performing daily activity after the tsunami.

The total score of family support was at a moderate level (M = 2.1, SD = 0.6). The highest mean score was for informational support (M = 2.4, SD = 0.7), followed by appraisal support (M = 2.2, SD= 0.7), emotional support (M = 2.1, SD = 0.7), and instrumental support (M = 1.8, SD = 0.9). The total mean score of psychological well-being was at a high level (M = 2.8, SD = 0.2). Every dimension of the psychological well-being had mean scores at a high level except autonomy (M = 2.5, SD = 0.4) which had a mean score at a moderate level. The two dimensions with highest mean scores were purpose in life (M = 3.7, SD = 0.4) and self-acceptance (M = 3.0, SD = 0.4) followed by positive relation with others (M = 2.8, SD = 0.3), personal growth (M = 2.8, SD = 0.4) and environmental mastery (M = 2.8, SD = 0.4). Furthermore, findings of this study indicated that the family support was statistically significant low correlated with the psychological well-being ($r = .37$, $p < .01$).

Moreover, further analysis of this study indicated that each dimension of family support had a correlation with the dimensions of psychological well-being. Informational support was statistically significant correlated with the purpose in life ($r = .49$, $p < .01$), positive relation with others ($r = .38$, $p < .01$), personal growth ($r = .25$, $p < .01$), environmental mastery ($r = .37$, $p < .01$) and autonomy ($r = 24$, $p < .01$). The appraisal support was statistically significant low correlated with purpose in life ($r = .37$, $p < .01$) and with personal growth ($r = .31$, $p < .01$). Emotional support was statistically significant positive low correlated with purpose in life ($r = .30$, $p < .01$). Instrumental support was statistically significant positive correlated with purpose in life ($r = .38$, $p < .01$), with personal growth ($r = .18$, $p < .05$), and with environmental mastery ($r = .19$, $p < .05$).

Limitation of the Study

In this study most of the subjects were females because most of males were not available during data collection, this issue may limit the result of this study to be generalized to all tsunami survivors in other populations.

Recommendations

Nursing practice

The findings provide evidence that the family support have significance relationship with the psychological well-being of the tsunami survivors. Furthermore, the findings suggest that the clinical practitioners should be aware of the importance of family support especially for tsunami survivors. They should encourage family to get involve in supporting the tsunami survivors. In the long-term impact, informational support is the most significant support for the survivors to rearrange their life. Counseling and health education are essential in maintaining and improving the psychological well-being of tsunami survivors.

Nursing education

The findings can be used by nurse educators to teach nursing students about the importance of the family support to the psychological well-being how to encourage the family support especially among the tsunami survivors.

Nursing research

This study presents more knowledge about family support and psychological well-being of the tsunami survivors. Further research is needed to explore this phenomenon within a greater number of subjects and setting to obtain more variance of data.

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APPENDICES

APPENDIX A

Informed Consent Form

My name is Fithria, I am an educator nursing staff in Nursing Department, Medicine Faculty, Syiah Kuala University. I am currently studying in master degree at Faculty of Nursing, Prince of Songkla University, Thailand. In this time, I am conducting a research, purposing to explore social support and psychological well-being among tsunami survivors in Lampoh Daya village, Aceh besar distric, Indonesia.

I offer you to join in this research; you will be asked to complete the questionnaire within 30 minutes. Please do not hesitate to ask if you have a problem in filling the questionnaire. I will keep confidentiality, so no one can know, read and open the data. You can withdraw from the research anytime if you want. Your signature in this form will indicate that you understand and will participate in this research without pressure from anyone.

Date:……..…….

Participant Researcher

(……..) (……)

Thank you very much for your participation. If you need confirmation or have questions please contact me at: Nursing Department, Medicine Faculty, Syiah Kuala University, Mobile Phone : 08126983417, email address: Fithria_aceh@yahoo.com, or you also can contact my theses advisor Assist. Prof. Dr. Urai. Hatthakit at Faculty of Nursing, Prince of Songkla University, Mobile phone: 074-286401, email address: urai.h@psu.ac.th.

APPENDIX B

Instrument

Code :

Date/time :

Place :

Part 1: Demographic and Health Information Questionnaire

I will ask you some information about your personal data. Please answer the best choice by putting mark √ in ☐ and fill in the in the available space.

1. Age …… years

2. Gender ☐ 1 male ☐ 2 female

3. Ethnic ☐ 1 Achenese ☐ 2 Javanese
   ☐ 3 Padang ☐ 4 Others: …….

4. Religion ☐ 1 Muslim ☐ 2 Protestant ☐ 3 Catholic
   ☐ 4 Buddhist ☐ 5 Hindu ☐ 6 Others

5. Level of education :
   ☐ 1 No formal education ☐ 2 Elementary school
   ☐ 3 Junior high school ☐ 4 Senior high school
   ☐ 5 College or above

6. Marital status
   ☐ 1 Single ☐ 2 Married
   ☐ 3 Widower ☐ 4 Widowed
   ☐ 5 Divorced

7. Monthly family income

☐ 1≤ RP 500,000

☐ 2 Rp 500,001- Rp 1,000,000

☐ 3 Rp 1,000,001- Rp 2,000,000

☐ 4 > Rp.2.000.000

8. Relationship with family members: ☐ 1 Good

☐ 2 Fair

☐ 3 Poor

9. Type of family: ☐ 1 Single family

☐ 2 Extended family

10. Number of family members: ……..

11. Impact of the tsunami on December 26, 2004 :

Loss of family member: ☐ 1 No ☐ 2 Yes (identify)…….

Loss of property: ☐ 1 No ☐ 2 Yes (identify)…….

Loss of occupation ☐ 1 No ☐ 2 Yes

New Job: ☐ 1 Farmer ☐ 2 Private employee

☐ 3 Government employee ☐ 4 Business person

☐ 5 Retired ☐ 6 Unemployment

☐ 7 Others:……

Previous Job: ☐ 1 Farmer ☐ 2 Private employee

☐ 3 Government employee ☐ 4 Business person

☐ 5 Retirement ☐ 6 Unemployment

☐ 7 Others:……

12. Current housing: ☐ 1 Temporary
☐ 2 Permanent: ☐ 1 Old location
☐ 2 New location

13. Health problems: ☐ 1 Hypertension
☐ 2 Diabetes mellitus
☐ 3 cardiovascular diseases
☐ 4 Rheumatoid Arthritis
☐ 5 Gastro Intestinal problems
☐ 6 Cancer
☐ 7 Asthma
☐ 8 Others:……

14. Perceived health status: ☐ 1 Good
☐ 2 Fair
☐ 3 Poor

15. Do you have any difficulties in performing activity daily living after the tsunami?
☐ 1 No
☐ 2 Yes (identify)……

Part 2: Family Support Questionnaire

Instruction:

Please answer all of the questions that apply for you based on your experience after tsunami 2004 by putting mark (√) in the appropriate column. In this questionnaire family support can be (mother, father, sons, daughters, grand father, grand mother, uncle, aunt, siblings, cousins, nephews, nieces, sisters-in-law, and brothers-in-law) or other significant persons who did not directly affected by the tsunami 2004 and lived separately from you. There are 5 options available: 0=Never, 1=Sometimes, 2=Often, 3=Very Often, 4=Always.

No	Items	Never	Sometimes	Often	Very Often	Always
1	My family really tries to understand all of my feeling.					
2	My family expresses his/her love to me.					
3	My family's action makes me feel comfortable to disclose my feeling.					
4	My family is really concerned about my feeling of lost because of tsunami					
5	My family holds me in the high esteem when I felt upset.					
6	My family really listens to me when I talked about my feeling.					
7	My family gives me an advice to deal with the problems related to the tsunami.					
8	My family gives me suggestions how to figure out my life.					

No	Items	Never	Sometimes	Often	Very Often	Always
9	My family leads me how to get other aid resources to solve the tsunami problems.					
10	My family states that she or he appreciates me so much					
11	My family gives me a positive feedback after doing something.					
12	My family tells me that I have an ability to rearrange my new life same as other people.					
13	My family tells me that I am a lucky person who has family members to share feeling.					
14	My family gives me money when I faced financial problems					
15	My family wants to share his/her time when I needed					
16	My family buys me new clothes					
17	My family gives me food and grocery things when I needed.					
18	My family provides me house equipments.					
19	My family provides me transportation when I needed					

Part 3: Psychological Well-Being Questionnaire

Instruction:

Please answer all of the questions that apply to you based on your experience after the tsunami by putting a mark (√) in the appropriate column. There are 5 options available; strongly agree, agree, do not know, disagree, strongly disagree.

No	Items	Strongly Agree	Agree	Do not know	Disagree	Strongly disagree
1	I feel worry about what the people think about me.					
2	My decisions are influenced by others.					
3	I have difficulty to voice my opinion to other people.					
4	For me, being happy with my self is more important than having others approve of me.					
5	I judge myself based on what I think is important, not based on what the other people think is important.					
6	I often change my mind if my friends or family disagree.					
7	I feel I am able to manage my environment that is satisfying to me.					
8	I feel stressful being in my environment.					
9	I feel under pressure with my environment.					
10	I think I am in charge of the situation in which I live now.					

No	Items	Strongly Agree	Agree	Do not know	Disagree	Strongly disagree
11	I do not fit very well with the people and community around me.					
12	I do not want to try new way of doing things.					
13	I am not interested in activities that will change my life style.					
14	I feel my life is a wonderful adventure.					
15	I always try to make a big change in my life.					
16	I feel that I have improved my knowledge and ability in my life.					
17	I am willing to share my time with others.					
18	I am willing to listen when the others share their problems to me.					
19	I am an easy going person.					
20	I think that the other have more friend than I do.					
21	I do not have any people who listen to me.					
22	I have warm and trusting relationship with others.					
23	I have difficulty in maintaining close relationship with others.					
24	I have a goal to be happy in my future days.					

No	Items	Strongly Agree	Agree	Do not know	Disagree	Strongly disagree
25	I feel that my daily activity is not meaningful for me.					
26	I feel that everything would be better if I was died in tsunami.					
27	I feel that my future is hopeful.					
28	I have a good sense of what it is I am trying to fulfill in my life.					
29	I feel that my life was going on my way.					
30	I feel confident about myself.					
31	When I compare myself with the others, I feel good about who I am.					
32	I feel satisfied with my achievement in life.					
33	I like most aspect of my personality.					
34	When I look at my past life, I am pleased about how thing have turn to.					

APPENDIX C

List of Experts

Three experts validated the content validity of the Family Support Questionnaire and the Psychological Well-Being Questionnaire, they were:

1. Assoc. Prof. Dr. Wandee Suttharangsee
   Nursing Lecturer, Faculty of Nursing, Prince of Songkla University, Thailand.
2. Assist. Prof. Dr. Sang-arun Isaramalai
   Nursing Lecturer, Faculty of Nursing, Prince of Songkla University, Thailand
3. Assist. Prof. Dr. Piyanuch Jintanoon
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