

**Social Support, Coping, and Burden of Family Caregivers
Caring for Persons with Schizophrenia
in West Java Province, Indonesia**

Imas Rafiyah

**A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
Master of Nursing Science (International Program)**

Prince of Songkla University

2011

Copyright of Prince of Songkla University

i

| | | | | |
|---------|--------------|-----|------|----|
| Library | RC140 | I52 | 2011 | 02 |
| Bib Key | 351540 | | | |
| | 26 Oct. 2554 | | | |

Thesis Title Social Support, Coping, and Burden of Family Caregivers
Caring for Persons with Schizophrenia in West Java Province,
Indonesia
Author Mrs. Imas Rafiyah
Major Program Nursing Science (International Program)

Major Advisor:

Wandee Suttharangsee
.....
(Assoc. Prof. Dr. Wandee Suttharangsee)

Co-advisor:

Hathairat Sangchan
.....
(Dr. Hathairat Sangchan)

Examining Committee:

Wongchan Petpichetchian
.....Chairperson
(Asst. Prof. Dr. Wongchan Petpichetchian)

Wandee Suttharangsee
.....
(Assoc. Prof. Dr. Wandee Suttharangsee)

Hathairat Sangchan
.....
(Dr. Hathairat Sangchan)

Weena Chanchong
.....
(Dr. Weena Chanchong)

Jiraporn Sonpaveerawong
.....
(Asst. Prof. Dr. Jiraporn Sonpaveerawong)

The Graduate School, Prince of Songkla University, has approved this thesis as partial fulfillment of the requirements for the Master of Nursing Science (International Program).

A. Phongdara
.....
(Prof. Dr. Amornrat Phongdara)
Dean of Graduate School

Thesis Title Social Support, Coping, and Burden of Family Caregivers Caring for Persons with Schizophrenia in West Java Province, Indonesia
Author Mrs. Imas Rafiyah
Major Program Nursing Science (International Program)
Academic Year 2010

ABSTRACT

The purpose of this correlational study was to examine the correlation among social support, coping, and burden of family caregivers caring for persons with schizophrenia. Purposive sampling was used to recruit 88 subjects from the Outpatient Department of West Java Province Mental Hospital, West Java, Indonesia. Data were collected from self-reporting questionnaires and were analyzed with descriptive statistic and Pearson's product-moment correlation coefficient.

The findings showed that 43.2% of the subjects perceived a moderate level of burden and 64.8% of the subjects perceived moderate social support. Optimistic coping was the coping strategy most often used by the subjects, followed by self-reliant coping, confrontative coping, and supportant coping. There were significant, positive correlations between social support and confrontative coping ($r = .68, p < 0.01$), optimistic coping ($r = .42, p < .01$), and supportant coping ($r = .46, p < .01$), but social support exhibited a significant, negative correlation with evasive coping ($r = -.52, p < .01$) and fatalistic coping ($r = -.41, p < .05$). There were significant, positive correlations between burden and evasive coping, fatalistic coping, and emotive coping ($r = .50, r = .57, r = .38; p < .01$), but burden showed a significant, negative correlation with confrontative coping, optimistic coping, and supportant coping ($r = -.40; r = -.31, r = -.36, p < .01$). Social support and burden were significantly, negatively correlated ($r = -.50; p < .01$).

These findings indicate that nurses should provide effective coping strategies to the family caregivers caring for persons with schizophrenia. This will allow them to deal with problems by using the confrontative, supportant, and optimistic coping. In addition, appropriate support for family caregivers should be available when required.

ACKNOWLEDGEMENT

First of all, I thank Allah for giving me the strength and ability to complete this study. Secondly, I would like to acknowledge the support I received from so many people which has made my study. I would like to express my deep gratefulness to the Indonesian Government, who has given me a full scholarship through the Directorate of Higher Education, the Ministry of Education. I am deeply grateful to Padjadjaran University, Indonesia and Prince of Songkla University, Thailand for giving me some support funding in finishing this thesis.

I would like to express my deepest appreciation to my advisors, Assoc. Prof. Dr. Wandee Suttharangsee and Dr. Hathairat Sangchan for guiding and encouraging me during this study. I would like to express my sincere gratitude to Asst. Prof. Dr. Wongchan Petpichetchian who has given guidance during my study. Great appreciation also is offered to all committee members who have given valuable suggestions for my study.

I would like to give deepest thanks to the Director of West Java Province Mental Hospital and all staff who have facilitated me during the data collection of my research. I also would like to express my deepest appreciation to all family caregivers who participated in this study.

My deepest thanks were addressed to MAPI Research Trust and Dr. Anne Jalowiec who allowed me to use their instruments. Great appreciation is offered to all experts who helped in validating the instruments, all translators who helped in back translation and the editor who helped me in the editing of thesis. I am gratefully indebted to Andriyani who assisted me during data collection. I also offer special thanks to all my friends for your kindness and togetherness which has supported me.

Finally, great respect to my beloved parents and husband (Yoga Yudiantara, S. Sos), love also goes to my son and daughter (Ilham Fauzan. A and Fila Camelia. R), and to my sisters and brothers. Thank you for praying, loving, and supporting me, all of you always make me strong during my study in Thailand.

Imas Rafiyah
iv

CONTENTS

| | Page |
|--|------|
| ABSTRACT..... | iii |
| ACKNOWLEDGMENT..... | iv |
| CONTENTS..... | v |
| LIST OF TABLES..... | xiii |
| LIST OF FIGURE..... | xi |
| CHAPTER | |
| 1 INTRODUCTION..... | 1 |
| Background and Significance of the Problem..... | 1 |
| Objectives of the Study..... | 6 |
| Research Questions of the Study..... | 7 |
| Conceptual Framework of the Study..... | 7 |
| Hypotheses..... | 11 |
| Definition of Terms..... | 12 |
| Scope of the Study..... | 14 |
| Significance of the Study..... | 14 |
| 2 LITERATURE REVIEW..... | 15 |
| Overview of Schizophrenia..... | 15 |
| Theoretical Foundation of the Relationships among Social Support, Coping, and Burden of Family Caregivers Caring for Persons with Schizophrenia..... | 22 |
| Social Support of Family Caregivers Caring for Persons with Schizophrenia..... | 25 |
| Coping of Family Caregivers Caring for Persons with Schizophrenia.... | 33 |
| Burden of Family Caregivers Caring for Persons with Schizophrenia.... | 44 |
| Relationship between Social Support and Coping of Family Caregivers | 57 |
| Relationship between Coping and Burden of Family Caregivers..... | 60 |

CONTENTS (continued)

| | Page |
|---|------|
| CHAPTER | |
| Relationship between Social Support and Burden of Family Caregivers | 63 |
| Cultural Context of Muslim and Sundanese in Indonesia..... | 65 |
| Summary of the Review of the Literature..... | 69 |
| 3 METHODOLOGY..... | 71 |
| Research Design..... | 72 |
| Setting..... | 72 |
| Population and Sample..... | 73 |
| Sample size..... | 73 |
| Sampling technique..... | 74 |
| Instrumentation..... | 74 |
| Instruments..... | 75 |
| Translation of the instruments..... | 79 |
| Validity of the instruments..... | 80 |
| Reliability of the instruments..... | 81 |
| Data Collection..... | 81 |
| Ethical Consideration..... | 82 |
| Data Analysis..... | 83 |
| 4 RESULTS AND DISCUSSION..... | 84 |
| Results..... | 84 |
| Discussion..... | 103 |
| 5 CONCLUSION AND RECOMMENDATIONS..... | 133 |
| Summary of the Study..... | 133 |
| Strengths and Limitations..... | 135 |
| Implications and Recommendations..... | 135 |

CONTENTS (continued)

| | Page |
|-----------------------------------|------|
| REFERENCES..... | 137 |
| APPENDIXES..... | 150 |
| A. Informed Consent Form..... | 151 |
| B. Instruments..... | 153 |
| C. Tables..... | 162 |
| D. List of Experts..... | 174 |
| E. Permission of Instruments..... | 175 |
| VITAE..... | 177 |

LIST OF TABLES

| Table | Page |
|---|------|
| 1 Frequency and Percentage of the Subjects Classified by Demographic Characteristics (N=88)..... | 85 |
| 2 Frequency and Percentage of the Subjects Classified by Health Characteristics Related to the Mentally Ill Member (N=88)..... | 88 |
| 3 Frequency and Percentage of the Subjects Classified by Caregiving (N=88)..... | 89 |
| 4 Mean, Standard Deviation, and Level Classified by Overall Social Support and Dimensions of Social Support (N=88)..... | 91 |
| 5 Frequency and Percentage of the Subjects Classified by Level of Overall Social Support (N=88)..... | 92 |
| 6 Percentage of the Subjects with the Top Five of Social Support Items that 'Sometimes' and 'Often' Perceived by the Subjects (N=88)..... | 93 |
| 7 Percentage of the Subjects with the Top Five of Social Support Items that 'Never' and 'Seldom' Perceived by the Subjects (N=88)..... | 94 |
| 8 Mean, Standard Deviations, and Frequency of Using Coping Strategies (N=88)..... | 95 |
| 9 Percentage of the Subjects with the Top Ten Coping Items that 'Sometimes' and Often 'Used' by the Subjects (N=88)..... | 96 |
| 10 Mean, Standard Deviation, and Level Classified by Overall Burden and Dimensions of Burden (N=88)..... | 97 |
| 11 Frequency and Percentage of the Subjects Classified by Level of Overall Burden (N=88)..... | 98 |
| 12 Percentage of the Subjects with the Top Five of the Burden Items that 'Quite Frequently' and 'Nearly Always' Perceived by the Subjects (N=88)..... | 99 |
| 13 Percentage of the Subjects with the Top Five of the Burden Items that 'Never' and 'Rare' Perceived by the Subjects (N=88)..... | 100 |

LIST OF TABLES (continued)

| Table | Page |
|-------|--|
| 14 | Correlation among Social Support, Coping, and Burden Using Pearson's Product-Moment Correlation Coefficient (r) (N=88)..... 102 |
| C1 | Distribution of Percentage of Social Support (N=88)..... 162 |
| C2 | Distribution of Percentage of Coping Strategies (N= 8)..... 164 |
| C3 | Distribution of Percentage of Burden (N=88)..... 167 |
| C4 | Minimum, Maximum, Mean, and Standard Deviation of Social Support (N=88)..... 169. |
| C5 | Minimum, Maximum, Mean, and Standard Deviation of Coping Strategies (N=88)..... 169 |
| C6 | Minimum, Maximum, Mean, and Standard Deviation of Burden (N=88)..... 169 |
| C7 | Skewness and Standard Error of Skewness of Social Support, Coping, and Burden (N=88)..... 170 |
| C8 | Correlation between Social Support and Coping Using Pearson's Product-Moment Correlation Coefficient (r) (N=88)..... 171 |
| C9 | Correlation between Coping and Burden Using Pearson's Product-Moment Correlation Coefficient (r) and Spearman's Rho (r_s) (N=88) 171 |
| C10 | Correlation between Social Support and Burden and Burden Using Pearson's Product-Moment Correlation Coefficient (r) and Spearman's Rho (r_s) (N=88)..... 171 |
| C11 | t-test for Examining the Differences of the Means between Marital Status and Social Support (N= 88)..... 172 |
| C12 | ANOVA Test for Examining the Differences of the Means between Relationship with the Mentally Ill Member and Optimistic Coping (N= 88)..... 172 |
| C13 | Post Hoc Test: LSD for Examining the Differences of the Means within Groups of Relationship with the Mentally Ill Member..... 172 |

LIST OF TABLES (continued)

| Table | Page |
|--|------|
| C14 ANOVA Test for Examining the Differences of the Means between Severity of the Disease Perceived by the Subjects and Burden (N=88) | 173 |
| C15 Post Hoc Test: LSD for Examining the Differences of the Means within Groups of Severity of the Disease Perceived by the Subjects.... | 173 |
| C16 Kruskal-Wallis Test for Examining the Differences between Educational Level and Burden (N=88)..... | 173 |
| C17 Chi-Square Test for Examining the Differences between the Mentally Ill Member's Behavior Making the Subjects Worried the Most and Burden (N=88)..... | 173 |

LIST OF FIGURE

| Figure | | Page |
|--------|---|------|
| 1 | Research framework depicting relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia..... | 11 |

CHAPTER I

INTRODUCTION

Background and Significance of the Problem

The number of people with schizophrenia in the world, particularly in developing countries, is increasing. Approximately one out of every 100 people in the world suffers from schizophrenia (Mental Health Research Association, 2006). In Indonesia, the prevalence of schizophrenic cases (over 15 years old) was reported to be approximately three among 1000 households in 1995 (National Health Household Survey as cited in Indonesian Department of Health and Social Welfare, 2001). In the West Java Province Mental Hospital of Indonesia, there were approximately 1,855 patients with schizophrenia in 2008 (Nursing Department of West Java Province Mental Hospital, 2009).

Schizophrenia is considered to be a severe mental illness. Persons with schizophrenia may experience impairments in their thought processes which influence their behaviors. Generally, their behaviors are odd and can sometimes be dangerous for themselves, such as the possibility of suicide (Pompili et al., 2009), or for others (Vivera, Hubbard, Vesely, & Papezova, 2005). In addition, the disease may relapse during treatment and recovery period (Bostrom & Boyd, 2005). Therefore, persons with schizophrenia are frequently hospitalized and usually need long-term care and treatment in order to minimize the negative impacts of the disease.

The possibly negative impacts of schizophrenia include death, social disability, social stigma, social cost, and burden for caregivers (World Health

Organization [WHO], 1998). Some persons with schizophrenia commit suicide due to hallucinations, and this increases the mortality rate. Socially, they often experience social disability and social isolation because of the symptoms of disease, so these lead to social stigma. In addition, the necessary long term care, treatment, and frequent hospitalization result in high costs and great burdens for caregivers.

Family caregivers are the most important caregivers for persons with schizophrenia. Approximately 60% to 85% persons with schizophrenia are cared by the family caregiver (Clement-Stone, Eigsti, & McGuire, 1995). Family caregivers usually help persons with schizophrenia in performing activities for daily living, such as bathing, eating, cooking, dressing, and taking medication. However, when such care is provided for long periods of time, family caregivers can experience great burdens (Caqueo-Urizar & Gutierrez-Maldonado, 2006; Grandon, Jenaro, & Lemos, 2008; Roick et al., 2007; Shu-Ying, Chiao-Li, Yi-Ching, For-Wey, & Chun-Jen, 2008) that lead to negative consequences.

The burden on family caregivers leads to negative consequences, not only for themselves but also for the persons with schizophrenia, other family members, and the health-care system. Caregivers suffer negative effects physically, emotionally, and economically (Caqueo-Urizar, Gutierrez-Maldonado, & Miranda-Castilo, 2009). Furthermore, the stress they experience results in poor caring and mistreatment of, or even violence towards persons with schizophrenia. All these help to bring about relapse of the disease (Bostrom & Boyd, 2005; Havens, 1999). Caregiver burden also results in family conflicts and financial problems for the individual, his or her family, and the health care system. However, these impacts differ among caregivers, as level of burden is dependent on various factors.

Based on the literature review, the factors related to caregiver burden can be classified into three main groups. The first was caregiver factors, consisting of age (Juvang, Lambert, & Lambert, 2007), gender (Schneider, Steele, Cadell, & Hemsworth, 2010), education level (Juvang et al., 2007), income (Andren & Elmstahl, 2007), health status (Mengdan, Lambert, & Lambert, 2007; Shu-Ying et al., 2008; Fujino & Okamura, 2009), perception (Schene as cited in Chou, 2000), time spent giving care each day (Chii, Hsing-Yi, Pin, & Hsiu, 2009; Juvang et al., 2007), knowledge of schizophrenia (Sefasi, Crumlish, Samalani, Kinsella, & O'Callaghan, 2008), culture (Janevic & Connell, 2001; Spurlock, 2005), subjective perception (Chou, 2000), and coping (Mengdan et al., 2007). The second is patient factors, consisting of age (Juvang et al., 2007), clinical symptoms (Perlick et al., 2006; Roick, Heider, Toumami, & Angermeyer, 2006), and disability in daily life (Fujino & Okamura, 2009). The third is environmental factors which include of mental health service (Roick et al., 2006), and social support (Magliano et al., 2000).

Of these factors, social support and coping play a particularly important role in maintaining caregiver well-being. Even though there are some factors related to burden in caring for persons with schizophrenia, the important factors are how the caregiver is able to cope and utilize social support (Roick et al., 2006). These two factors can act as a buffer for limiting stressors (Kaptein & Weinman, 2004). Coping strategies and practical support from social networks were found to reduce family burden over time (Magliano et al., 2000). However, according to Chii et al. (2009) perceived social support can be better predicting caregiver burden than received social support.

Like other developing countries, Indonesia is faced with the impact of health care system changes. In Indonesia, one of health care system change is deinstitutionalized care policy that involves application professional mental health service both in a hospital and community setting. Their purposes are to attain recovery, decrease hospitalization and its cost, and promote family based care. However, the effectiveness of these strategies has not yet been well established, particularly in community setting due to lack of health care providers especially psychiatric nurses (Indonesian Department of Health and Social Welfare, 2001). Shortening of hospital stay impacts on many persons with schizophrenia living with their families, but lack intervention support from community mental health service may affect on increasing burden on the family caregivers.

Family caregivers who cannot deal with the burden affect negative caring and relapse that result in rehospitalization of persons with schizophrenia. In 2008, approximately 173 of 1,855 persons with schizophrenia were rehospitalized in the West Java Province Mental Hospital of Indonesia because of relapse. In most cases, family members brought persons with schizophrenia to the hospital because they could not deal with violent behavior. From November 2008 to April 2009, 12 persons with schizophrenia were discharged without being met by their families, even though the hospitals had informed their family multiple times to pick them up (Nursing Department of West Java Province Mental Hospital, 2009).

Family caregivers play a pivotal role in the care of person with schizophrenia. Therefore, nurses need to understand relationships among coping, social support and burden on family caregivers when the nurses are caring for people

with schizophrenia. By understanding these three things, nurses will be able to provide appropriate nursing interventions for patients and caregivers.

Even though there are a number of studies showing that caring for persons with schizophrenia causes burden for family caregivers, there is a gap in the knowledge with regard to caregiver ability across culture. Most family caregiver burden studies were conducted in Western countries (Dick, Short, & Vitaliano, 1999; Grandon, Jenaro, & Lemos, 2008; Moller-Leimkuhler & Obermeir, 2008; Perlick, et al., 2006; Roick et al., 2007; Magliano et al., 2000). However, according to Anderson, Williams and Gibson (2002), caregiving experiences and outcomes varied across racial and ethnic groups. In addition, for Indonesia, the researcher was unable to find a previous study examining the relationships among coping, social support and burden on family caregivers.

Socially speaking, the cultures of Western countries are different from that of Indonesia. In Indonesia, specifically in West Java, most of the people are Muslim and of the Sundanese ethnicity. Muslim people believe that caring for persons who are sick is an act of devotion and a service to God which should be done voluntarily (Rassool, 2000). One of the most typical Sundanese values is the concept of "*silih asah, silih asih, silih asuh*", meaning that people should care, love and guide each other. However economic stress is also a factor in most Sundanese-Indonesian families. Households with stable income and permanent job contracts are rare, so the low occupational status of most families influence caregiving negatively (Chase-Lansdale & Owen; Gecas; Greenberger, O'Neill, & Nagel as cited in Zevalkink, Riksen-Walrafen, & Lieshout, 1999).

Based on the reasons described above, the researcher chose to investigate the social support, coping, and burden of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia. The researcher also chose to examine the relationships among three factors to gain knowledge that could be used to increase quality of care for persons with schizophrenia.

Objectives of the Study

This study aimed to:

1. Identify the types and level of social support perceived by family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.
2. Identify the frequency of coping strategies used by family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.
3. Identify the level of burden of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.
4. Examine the relationship between social support and coping of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.
5. Examine the relationship between coping and burden of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.
6. Examine the relationship between social support and burden of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.

Research Questions of the Study

The research questions were stated as follows:

1. What is the type and level of social support perceived by family caregivers caring for persons with schizophrenia?
2. What is the frequency of use of the coping strategies used by family caregivers caring for persons with schizophrenia?
3. What is the level of burden of family caregivers caring for persons with schizophrenia?
4. Is there a relationship between social support and coping of family caregivers caring for persons with schizophrenia?
5. Is there a relationship between coping and burden of family caregivers' burden caring for persons with schizophrenia?
6. Is there a relationship between social support and burden of family caregivers caring for persons with schizophrenia?

Conceptual Framework of the Study

In this study the researcher used Lazarus and Folkman's transactional model of stress and coping (Lazarus & Folkman, 1984) to guide the conceptualization of the study variables. According to Lazarus and Folkman, whether or not a person considers an event in their environment to be a stressor depending on how she or he appraises the situation, a process which involves that person's cognition. They refer to this cognition process as "cognitive appraisal." This cognitive appraisal will lead a

person to cope with the situation (coping process), resulting in coping outcomes which indicate the coping effectiveness of the person. Furthermore, the three main concepts of this study will be described according to Lazarus and Folkman's theory and how each concept is applied to a caregiving situation in this study.

Cognitive appraisal consists of three kinds, namely, primary appraisal, secondary appraisal, and reappraisal. Primary appraisal refers to a person's evaluation about a situation relating to his or her well-being. When a person faces the situation, he or she will perceive whether that situation is irrelevant to his or her well-being (irrelevant), offers a positive outcome (positive-benign), or is stressful. Stressful situation can be perceived as harmful, threatening, and challenging. Harmful means that damage has already happened, threatening means there is a potential for harm for a person, and challenging means the situation offers a person potential to growth. If a person evaluates a situation as threatening, he or she will appraise what might or can be done. This is called secondary appraisal. This appraisal involves evaluation of the effectiveness and consequences of coping options. A person's appraisal may change based on new information from environment or another person. This is called reappraisal (Lazarus & Folkman, 1984). This study is a cross-sectional study, thus reappraisal will not be examined.

In this study, the situation of being a caregiver to a person with schizophrenia was assumed to be appraised as a stressful situation by a caregiver (primary appraisal). Then, a caregiver must appraise if she or he was able to do something so perceived social support was considered as secondary appraisal.

Social support in this study, according to Lazarus and Folkman (1984) is a secondary appraisal of a stressful situation. As they did not provide detailed a

descriptions of this concept, the researcher used House's components of social support. Social support refers to functional content of relationship, such as the degree to which the relationship involves affect or emotional concern, instrumental or tangible aid, information, and the like (House & Khan, 1985). House (as cited in Dunkel-Schetter, Folkman, & Lazarus, 1987) distinguishes social support into four types of support: 1) emotional support, is associated with showing care involving provision empathy, love, trust, caring, esteem, affect, concern, and listening; 2) instrumental support, is associated with the provision of tangible aid and services that directly assist a person in need involving help in the form of money, labor, time, and modifying of environment; 3) informational support, is associated with providing information involving the provision of advice, suggestion, and information that can be used to handle personal and environment problems; 4) appraisal support, is associated with the provision of information that is useful for self-evaluation purposes including affirmation, constructive feedback, and social comparison.

After a person appraises what he or she can do, the person will make an effort to cope and deal with the situation. Coping according to Lazarus and Folkman (1984) is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). The coping strategies to manage stressful events in this study including: 1) confrontative coping: constructive problem-solving, facing up to and confronting the problem; 2) evasive coping: doing things to avoid confronting a problem; 3) optimistic coping: maintaining positive thinking or positive attitudes about a problem; 4) fatalistic coping: pessimistic or hopeless attitudes toward a problem; 5) emotive coping: rely on expressing or releasing

emotions to try to relieve stress; 6) palliative coping: doing things to make oneself feel better, such as eating, drinking, or taking medication; 7) supportant coping: using support system to cope, such as personal, professional, or spiritual; and 8) self-reliant coping: depending on oneself to deal with a problem, rather than on others (Jalowiec, 2003).

The outcome of coping can be effective or ineffective. It depends on the match between the secondary appraisal of resources and the flow of events. Coping will be effective if there is effective management of both the problem and feelings. Coping effective affects three adaptational outcomes on social functioning, morale, and somatic health.

In this study a feeling of burden was considered an indicator of coping effectiveness. According to Zarit, Reever, and Bach-Peterson (as cited in Chou, 2000), burden is defined as the extent to which caregivers perceive negative effect on the emotional, physical health, social life, and financial status as a result of caring for their relatives. Burden is considered as the product of a specific subjective and interpretative process from tasks performed to impaired person. Burden has several dimensions including: 1) burden in the relationship: negative effect of caring on the relationship between a caregiver and his or her family ill member; 2) emotional well-being: negative effect of caring on caregiver's psychological well-being; 3) social and family life: negative effect of caring on caregiver's social and family life; 4) financial: negative effects of caring on caregiver's finance; 5) loss control over one's life: negative effect of caring on caregiver's physical health.

Figure 1 demonstrated the relationship among the key study variables. They are taken mainly from Lazarus and Folkman's theory as well as House's social support, and Zarit, Reever, and Bach-Peterson's burden.

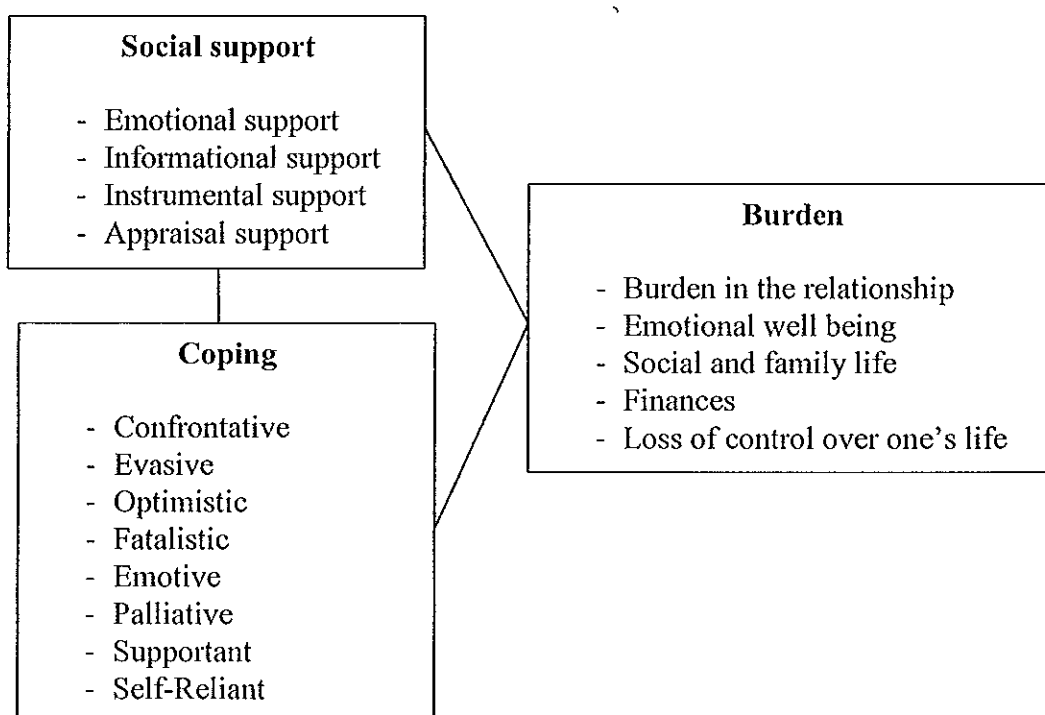


Figure 1

Research framework depicting relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia

Hypotheses

The hypotheses of this study were stated as follows:

1. There is a relationship between social support and coping of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.
2. There is a relationship between coping and burden of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.

3. There is a negative relationship between social support and burden of family caregivers caring for persons with schizophrenia in West Java Province, Indonesia.

Definition of Terms

Social support refers to the level and types of any support from external sources perceived by family caregivers that they received while caring for person with schizophrenia with regard to its frequency. In this study, there are four types of social support including: 1) emotional support: showing care involving esteem, affect, concern, and listening; 2) informational support: providing information including suggestion, directive, and information that can be used to handle family caregivers' problems; 3) instrumental support: provision of tangible aid that directly assist family caregivers in need involving aid in-kind, money, labor, time, and good environment; and 4) appraisal support: provision of information that is useful for self-evaluation purposes involving affirmation, feedback, and social comparison. Social support was measured by the Perceived Social Support Questionnaire (PSSQ) developed by the researcher. Higher scores indicate that family caregiver perceive that they frequently received social support.

Coping refers to strategies of coping used by family caregivers when encountering stressful situations regarding caring for person with schizophrenia. Coping strategies in this study were stated as follows: 1) confrontative coping: constructive problem-solving, facing up to and confronting problems; 2) evasive coping: doing things to avoid confronting a problems; 3) optimistic coping:

maintaining positive thinking; 4) fatalistic coping: pessimistic or hopeless attitudes toward a problems with regard to caring for persons with schizophrenia; 5) emotive coping: rely on expressing or releasing emotions to relieve stress; 6) palliative coping: doing things to make oneself feel better when facing problems, such as eating, drinking, or taking medication; 7) supportant coping: using support system to cope problems, such as personal, professional, or spiritual; 8) self-reliant coping: depending on oneself to deal with a problems. Coping was measured only with part A (frequently of coping strategy used) of the revised Jalowiec Coping Scale (JCS). Higher scores for each dimension indicate a more frequently used of coping method by the family caregiver.

Burden refers to the level of perception of burden that family caregivers have as a result of caring for person with schizophrenia. Dimension of burden in this study includes: 1) burden in the relationship: negative effects of caring for persons with schizophrenia on the relationship between family caregivers and persons with schizophrenia; 2) emotional well being: negative effects of caring for persons with schizophrenia on family caregiver's psychological well-being; 3) social and family life: negative effects of caring for persons with schizophrenia on family caregiver's social and family life; 4) financial: negative effects of caring for persons with schizophrenia on family caregiver's finance; 5) loss control over one's life: negative effects of caring for persons with schizophrenia on family caregiver's physical health. Burden was measured by the Zarit Burden Interview (ZBI). Higher score indicate greater burden on family caregivers.

Scope of the Study

This study examined the relationships among social support, coping, and burden of caregivers caring for persons with schizophrenia. The study was conducted at the outpatient department in West Java Province Mental Hospital, Indonesia from October to December 2010. Family caregivers in this study included only those who aged more than 18 years old, lived with schizophrenic persons, and had provided full-time care voluntarily for at least six months.

Significance of the Study

The research findings can provide useful information for nursing practice, nursing education, and nursing research as follows:

1. For nursing practice, the research findings can provide useful information to better understand social support, coping, and burden of family caregivers caring for persons with schizophrenia. It will thus help nurses to develop more appropriate nursing interventions.
2. For nursing education, the research findings can provide useful information to develop knowledge particularly social support, coping, and burden of family caregivers caring for persons with schizophrenia as a teaching material for nursing students.
3. The research findings can also be used as baseline data for further research related to coping, social support, and burden of family caregivers in this situation.

CHAPTER 2

LITERATURE REVIEW

This chapter focuses on the theories and research findings related to the study. It covers: a) an overview of schizophrenia; b) theoretical foundation of the relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia; c) social support of family caregivers caring for persons with schizophrenia; d) coping of family caregivers caring for persons with schizophrenia; e) burden of family caregivers caring for persons with schizophrenia; f) relationship between social support and coping of family caregivers; g) relationship between coping and burden of family caregivers; h) relationship between social support and burden of family caregivers; and g) cultural context of Muslim and Sundanese in Indonesia.

Overview of Schizophrenia

The term *schizophrenia* was introduced by the Swiss psychiatrist, Eugene Bleuler, in 1911. The word *schizophrenia* is derived from the Greek roots, *skhizo* and *phren*. *Skhizo* refers to a split and *phren* refers to the mind. The split occurs between the cognitive and emotional aspects of one's personality (Moller, 2005). Schizophrenia generally occurs in the adult population and which involves a persistent neurobiological brain disease, the symptoms of which can impair activities and interactions with family and community (Moller, 2005). Schizophrenia is defined as a major mental disorder, or group of disorders, whose causes are still largely

unknown and which involves a complex set of disturbances of thinking, perception, affect, and social behaviour (World Health Organization [WHO], 1998). According to the American Psychiatric Association (2000), “schizophrenia is a disorder that lasts for at least six months and includes at least one month of active-phase symptoms (i.e, two or more of the hallucinations, disorganized speech, grossly disorganized behavior or catatonic behavior)” (p. 298). Furthermore, another definition states that schizophrenia involves continuous signs of disturbance persisting for at least six months, with a mixture of positive and negative symptoms that are present for a significant portion of a one-month period (Diagnostic and Statistical Manual of Mental Disorder IV-text revision [DSM-IV-TR] as cited in Bostrom & Boyd, 2005).

In conclusion, schizophrenia involves neurobiological damage. It also causes behavioral changes involving at least a one month acute phase, and at least six months of continuous symptoms.

Factors causing schizophrenia

Schizophrenia is a severe mental disease caused by combination of multicausal factors (Townsend, 2006). The predisposing factors for schizophrenia include biological, psychological, and sociocultural and environmental factors (Bostrom & Boyd, 2005; Moller, 2005; Townsend, 2006).

Biological factors

Genetic. Several studies have shown that the percentages of genetic risk for schizophrenia from highest to lowest are: mono-zigot twin (50%), both parents affected (35%), dizigot twin or one parent affected (15%), sibling (10%), and second degree relative affected (2-3%) (Moller, 2005).

Neurobiology. In term of neurobiology, schizophrenia persons have anatomical, functional and chemical brain abnormalities. Their prefrontal cortex and limbic cortex are not fully developed in which these are probably related to negative and positive symptoms. In term of neurotransmitter, studies have found that person with schizophrenia exhibit persistent impairment of one or more neurotransmitters. Positive symptoms of schizophrenia are caused by hyperactivity of dopamine release in the mesolimbic tract, whereas negative symptoms are caused by hypoactivity of the mesocortical dopaminergic tract. Other receptors involved with dopamine neurotransmitters are serotonin and glutamate. Serotonin has a modulating effect on dopamine, whereas glutamate is the major excitatory in the brain. In schizophrenia, serotonin and glutamate are not in balance with dopamine. In term of neurodevelopment, the disruption of the brain during fetal development can affect the maturity of the brain throughout childhood and adolescence. This influences on myelination, migration and the interconnection of neurons.

Viral infection. Prenatal exposure to the influenza viral especially during the second trimester may be one cause of schizophrenia (Moller, 2005).

Psychological factors

Based on psychological theory, schizophrenia is caused by difficulties in relating, affective blunting (decreased emotional expression), and difficulties with decision making, self concept changes, increase stress, ineffective coping, and loss of family relationships. Psychosocial theorist believed that the major cause of schizophrenia is dysfunctional parenting during child's development (Bostrom & Boyd, 2005; Moller, 2005; Townsend, 2006).

Sociocultural and environmental factors

Based on social theory, schizophrenia is caused by poor financial status, family and caregiver stress, homelessness, stigma and community isolation.

Some theories focus on patterns of family interaction that seem to affect the eventual social adjustment outcomes of individuals with schizophrenia. Families with highly expressed emotions speak critically, hostilely, and negatively about patient. These statements increase patients' positive symptoms and their possibility of relapse (Bostrom & Boyd, 2005; Moller, 2005; Townsend, 2006).

In conclusion, schizophrenia is a biological predisposition that is exacerbated by the environment. The vulnerability includes biologic, psychologic, and social elements. These alter an individual's ability, both cognitively and emotionally to manage life events and interpersonal situations.

Symptoms of schizophrenia

Schizophrenia is a disease with the several of symptoms. There are five core symptom clusters for schizophrenia including positive symptoms, negative symptoms, cognitive symptoms, mood symptoms, and social or occupational dysfunctional symptoms (Moller, 2005).

Positive symptoms. According to Moller (2005), "a positive symptom is an exaggeration or distortion of a normal function" (p. 388). Positive symptoms includes delusions or false beliefs about which a person is firmly convinced, hallucinations or sensory perceptions in the absence of any externally generated stimulus or perception, thought disorders, disorganized speech, bizarre behavior, and an inappropriate affect.

Negative symptoms. A negative symptom is “a diminution or loss of a normal function“ (Moller, 2005, p. 388). Affective flattening, alogia, apathy, anhedonia, and attention deficit are considered to be negative symptom (Lieberman, Stroup, & Perkins, 2006).

Cognitive symptoms. A cognitive symptom is a condition in which the brain is unable to process, store and retrieve information. It is caused by malfunction of the brain’s information processing system. Symptoms relating to the processing of information include memory problems, attention deficit disorder, and poor executive function, such as abstraction, concept formation, problem-solving and decision making.

Mood symptoms. Mood disturbances often occur in the schizophrenia persons. They can last for a few hours or a few years. The symptoms related to mood include dysphoria, suicidal thought, and hopelessness.

Social or occupational dysfunction. Social dysfunction involves impairment in building relationships or in doing daily activities. Such a dysfunction involves a patient’s behavioral disturbances such as incoherent communication, lack of interest, impairment in social skill, bad personal hygiene, paranoia, and low self-esteem; and social stigma.

In summary, there are multiple symptoms of schizophrenia. These symptoms include positive symptoms, negative symptoms, cognitive symptoms, mood symptoms, and social symptoms.

Phases of schizophrenia

The clinical picture of schizophrenia differs from phase to phase. These phases are the acute phase, stabilization phase, maintenance and recovery phase, and relapse phase (Bostrom & Boyd, 2005). The characteristics of each of these phases are given as follow.

Acute phase. In this phase, the patients experience changes of thought and their behaviors become disruptive, for example incoherent speech, or aggressive acts against the self or others. These behaviors may be confusing and frightening for both the patient and the family. As the symptoms progress, the patient becomes less able to care for him or herself in basic ways, such as eating, sleeping, and bathing. Patients become dependent on the family for these needs. Since patients are at a high risk for suicide, they are usually hospitalized. The initial treatment focuses on controlling the symptoms with medication. During this period, both patients and families have to learn to cope with the situation (Bostrom & Boyd, 2005).

Stabilization phase. In the stabilization phase, symptoms are become less but still persist, so treatment is still given. Then all parties begin to adjust to the reality of schizophrenia as a severe mental illness. Rehabilitation can be begun in this period (Bostrom & Boyd, 2005).

Maintenance and recovery phase. In the maintenance and recovery phase, treatment focuses on maintaining a stable condition and on increasing their quality of life. Medication in this phase is used for improvement of the patient's function. Stressors during this phase can exacerbate the symptoms. Therefore, patients and families should learn how to cope in order to prevent relapse (Bostrom & Boyd, 2005).

Relapse phase. Relapse can occur at any time during treatment and recovery. Relapse is major concern in the treatment of schizophrenia. Causes of relapse include noncompliance with medication regimens, ineffective coping, difficulty in accessing community resources, lack of financial support, social stigma, and lack of responsiveness from family members, friends, and other support (Bostrom & Boyd, 2005).

In general, the phases of schizophrenia are in fluctuation for most patients, changing between acuteness, stability, recovery and relapse. Relapse occurs if patients do not adhere to medication regimes or if patients cannot cope with their stress.

Impact of schizophrenia on patients, families and communities

Schizophrenia impacts not only patients and family, but also communities. Schizophrenia can impact patients in term of their mortality and their social ability. In family, schizophrenia causes family burden as well particularly on caregiver. Impacts on communities include as patient stigma and social cost. Some schizophrenia patients commit suicide, sometimes due to hallucination. In society, they generally experience rejection due to the symptoms of their disease and general social stigma. Many people consider schizophrenia to be a shameful disease and the consequence of this is the social isolation of patients. Long term care, treatment, and frequent hospitalization are factors which effect cost (WHO, 1998).

Theoretical Foundation of the Relationships among Social Support, Coping, and Burden of Family Caregivers Caring for Persons with Schizophrenia

The theoretical foundation in this study used Lazarus and Folkman's transactional model of stress and coping (Lazarus & Folkman, 1984). The Lazarus and Folkman theory will explain the relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia. Their correlations are explained as follows.

Firstly, the relationship between social support and coping. Theoretically, when a person faces a stressful situation, she or he will appraise what can be done to deal with the problems, which coping options are available, the probability of the coping options to solve the problems, and the probability of a person applying a particular strategy. Then, based on these appraisals, a person will find the effort needed to deal with situations. When a person appraises more received social support, a person may tend to cope by seeking support, solving problems, or maintaining positive thinking because they can share problems, empathy, and positive feedback through social support. However, if a person appraises less received social support, he or she may avoid problems or just wait and see what will happen due to not being able to share problems, empathy, and positive feedback (Lazarus & Folkman, 1984). In the present study, caring for persons with schizophrenia was appraised as a stressful situation by family caregivers. Then, family caregivers perceived social support as a source of coping with a stressful situation.

Secondly, the relationship between coping and burden. According to Lazarus and Folkman (1984), a person will appraise what can be done to deal with the problems when she or he faces a stressful situation. Then, a person he will make the effort to manage stressful situation in order to reach physical and emotional well being. Emotion-focused coping strategies are used when a person appraises that nothing can be done to modify a stressful situation. These coping strategies include avoiding problems, hopelessness, self blame, relaxation, or keeping positive thinking (emotion-focused coping are targeted at cognitive changes). However, problem-focused coping strategies are used if a person appraises a stressful situation as a situation that can be modified. Problem-focused coping strategies are often directed on defining a problem, developing alternative solutions, weighing costs and benefits, choosing among them, and acting upon them. These coping strategies include facing the problem, talking with someone that can help to solve the problem, or increasing one's self skill in problem solving. The goodness strategy is determined by effectiveness coping to deal with problems in long time period. Coping is effective if it can manage problem and regulate negative emotion feeling that result in adaption outcomes that result in physical and emotional well being (Lazarus & Folkman, 1984). Caring for persons with schizophrenia, in this present study, was appraised as a stressful situation by family caregivers. Therefore, they will make the effort to cope with this situation in order to regulate emotions by using emotion-focused coping strategies and or relieve the problem using problem-focused coping strategies. The effectiveness of their coping would regulate their problems and negative feeling that result in reduce burden.

Thirdly, the relationship between social support and burden. Social support may be appraised by a person as a coping option to deal with the problems. A person may think to cope by seeking support to help solve problems when she or he appraises more received social support because social support can mediate a person shares problems, empathy, and positive feedback through social support. However, if a person appraises less received social support, she or he may cope to avoid problems or just wait and see what will happen, feel hopeless, or get into self blame due to not being able to share problems. Social support can mediate increasing well being through effective coping option. A coping strategy is viewed as effective to deal with problem if it can manage both the problem and negative emotional feelings. Outcome of an effective coping can be felt by a person as an adaption to the situation (Lazarus & Folkman, 1984). In this present study, perceived social support might reduce burden through effective coping option. Family caregivers were assumed perceived social support as a source to cope with problems or a stressful situation while caring for persons with schizophrenia. This appraisal probably resulted in family caregivers using optimistic coping, supportant coping, and confrontative coping to cope with stressful situation. These coping strategies might result in reducing their burden due to could manage problems and regulate negative emotional feelings.

*Social Support of Family Caregivers Caring for Persons with Schizophrenia**Concept of social support*

It was found in the literatures that there are several definitions for social support. According to Kaptein and Weinman (2004), "social support refers to the function and quality of social relationship, such as the perceived availability of help or support actually received" (p. 160). Procidano and Heller (as cited in Hupcey, 1998) defined social support as the extent to which an individual believes that his or her need for support, information, and feedback are fulfilled. Cobb's (as cited in Hupcey, 1998) definition of social support is information leading a person to believe that he or she is cared for and loved, esteemed and valued, and that he or she belongs to a network of communication and mutual obligation.

Social support can also be defined as a social arrangement that provides nurturance and feedback to individuals (Garbarino and Abramowitz as cited in Denham, 2003) and serves as a valuable resources in times of physical and emotional need (Garbarino et al. as cited in Denham, 2003). Cohen and Hoberman (1983) defined social support as "the various resources provided by one's interpersonal ties" (pp 100). According to House and Kahn (1985), social support refers to the functional content of a relationship, such as the degree to which the relationship involves affect or emotional concern, instrumental or tangible aid, information, and the like. Moreover, House and Khan stated that social support must be considered part of the general domain of social support including social support (type, source, and quantity or quality), social relationship (existence, quantity, and type), and social network (size, density, durability, intensity, frequency, homogeneity,

dissension). These three parts of social support influence emotional and physical well being, whether a person experiences stress or health.

In the present study, the researcher used the concept of social support based on House's social support conceptualization. This concept was chosen because it involved various types of social support that match culturally with social life of Indonesian people. According to House (as cited in Dunkel-Schetter, Folkman, & Lazarus, 1987), social support is an interpersonal transaction involving one or more of the following:

1. Emotional support. It is associated with showing care involving provision empathy, love, trust, caring, esteem, affect, concern and listening. This support generally comes from family and close friends and is the most commonly recognized from social support.

2. Instrumental support. It involves the provision of tangible aid and services that directly assist a person's needs. Instrumental support can be aid in-kind, encompassing help in the form of money, labor, time, and modifying the environment. These are usually provided by close friends, colleagues, and neighbors.

3. Informational support. It is associated with providing information involving the provision of advice, suggestion, and information that can be used to handle personal and environmental problems.

4. Appraisal support. It is associated with the provision of information that is useful for self-evaluation purposes including affirmation, constructive feedback, and social comparison. This appraisal can be from family, friends, co-workers, or community resources.

Overall, based on the definitions, social support can be viewed as a perceived social support and received social support. Types of social support include emotion support, instrumental support, informational support, and appraisal support.

Factors related to social support of family caregivers

From the literature review, it was found that there are some factors related to social support. Those factors are grouped into caregiver factors, support provider factors, and environmental factors.

Caregiver factors

There are several caregiver factors that relate to social support. These include age, gender, marital status (Kaptein & Weinman, 2004), perception, coping abilities (Hupcey, 1998).

Age. Adult age have greater social support than young do. This is because adult generally have close relationships and more extensive social network (Kaptein & Weinman, 2004).

Gender. In regards to gender, women have more support than men because women tend to develop more intimate interpersonal relationships than men. Women were more empathic and expressive than men. Hence, in general women have more close friends than men. These social relationships may provide support (Kaptein & Weinman, 2004). Women more perceived more available support from friends and grandchildren (Kristofferzon, Lofmark, & Carlsson, 2005).

Marital status. Married people more have social support than singles do (Kaptein & Weinman, 2004). This is simply because spouses can act as a source of social support.

Perception. Social support given by providers can be perceived as either positive or negative. Social support is perceived as positive if it fulfills a caregiver's needs, it is provided voluntarily, and there is no interpersonal conflict. Social support is perceived as negative if it does not fulfill a caregiver's need or if there is interpersonal conflict between the caregiver and the supporter (Hupcey, 1998).

Coping ability. People with effective coping can manage stress situation by themselves. They may not need to request support from others. However, people in stressful situations who are unable to cope may need support and may thus request support from others (Cohen & Syme, 1985; Hupcey, 1998).

Support provider factors

Regarding support providers, there are factors related to social support. These are reason for providing support, the perception of support needed, and the timing in giving social support (Hupcey, 1998).

Reason for providing support. The reason for providing support can influence support given. People will give support voluntarily if their reason is empathy. However, social support will be given grudgingly if the reason for providing support is obligation. In this case the consequences will be that the provider on feels negativity about giving support to the caregiver and this also effects on negative feeling for the caregiver (Hupcey, 1998).

Provider's perception toward caregiver's needs of support. The perception about a caregiver's needed support influences the support given. Potential supporters will give support if they perceive that the caregiver needs any (Hupcey,

1998). Appropriateness support given results in positive impacts on receivers (Cohen & Syme, 1985).

Timing in providing support. The timing in providing social support influences the quality of social support because there are differences support needed in the different phases or situation. In a crisis phase, a transition phase and a deficit phase, need of support will be different (Cohen & Syme, 1985; Helgeson, 2003), for example, people who experience job loss, in the first time they may need financial support, but after several months unemployed, support for self esteem may become crucial (Cohen & Syme, 1985). When people provide support which is different from a caregiver needs, the consequence may be support perceived negatively by the caregiver (Hupcey, 1998). In addition, support can be provided for short term or long term period. The obligation of spouses or family to provide support over prolonged periods may make these sources more stable in long-term situation than are others (Cohen & Syme, 1985).

Environmental factors

The severity of stressor may also indicate what type of support is going to be given. If the stressors are controllable, informational support may be the most helpful kind of support. However if the stressors are uncontrollable, emotional support may be more beneficial (Helgeson, 2003).

Impact of social support for family caregivers on health-related outcomes

Social support has direct or indirect (buffer) effects on health-related outcomes (Cohen & Syme, 1985). The direct effect is that social support has a positive effect on health. In terms of health, social support motivates people to engage in healthy behaviors.

Indirectly, social support influence on physical and psychological. Physically, social support can increase immune indirectly through strengthens coping abilities and decreases stress. Psychologically, social support increase psychological health through increasing self esteem and self efficacy. The buffering effect occurs only when a person is exposed to stressors, like negative life events. In such an instance, social support is supposed to help the person to cope effectively with the situation, thereby preventing stress and depression. Studies have shown that poor social support is associated with depression (Panzarella, Alloy, & Whitehouse, 2006) and high mortality rates (House, Robbin, & Metzger, 2002).

Social support perceived by family caregivers caring for persons with schizophrenia

Perceived social support is important for caregivers who are caring for person with schizophrenia. Perceived social support can act as a buffer to burden. Some studies have shown that support plays an important role to reduce burden on caregiver.

Wai-Tong, Chan, and Morrisey (2007) did study on 203 Chinese families caring for a relative with schizophrenia. They reported that family who aged

over 40 years old and had lower monthly income experienced higher level of burden. Burden negatively correlated with low perceived social support. When burden was high, families would experience less social support, because perceived social support can act as a buffer for family distress and difficulties while caregiving.

Other study was conducted by Chii, Hsing-Yi, Pin, and Hsiu (2009) on 301 caregivers in Taiwan to examine whether burden is related to perceived and received social support. The findings showed that informational and instrumental supports were frequently received, but emotional support was received the least. Perceived social support was better to reduce burden than received social support. They recommended to further study about the role of perceived social support and received social support should be further investigated.

Measurement of social support for family caregivers

Several measurements of social support have been used in other studies. These include the Interpersonal Support Evaluation List (ISEL), Personal Resources Questionnaire (PRQ), and Social Network Questionnaire (SNQ).

Interpersonal Support Evaluation List (ISEL). The ISEL was developed by Cohen and Hoberman (1983) to measure the perceived availability of support over four dimensions: tangible, appraisal (informational), belonging and self esteem. The tool has two forms, one for college students and one for the general population. The tool for college students has 48 items and the one for general population has 40 items. Half of the items are negative statements. This tool also involves of four score, with the point being as follows: definitely false, probably false, definitely true, and probably true. Internal reliabilities (Cronbach's alpha) for the

tangible scale, belonging scale, self esteem scale, and appraisal scale are as follows: .71, .75, .60, and .77, respectively for total scale of .77.

Personal Resources Questionnaire (PRQ). The PRQ was developed by Weinert and Brandt in 1987 to measure construct social support. This tool has two parts. Part one measures information about a person's resources and satisfaction with those resources. Part two measures social relationship dimensions. The measurement of part one involves 25 items Likert scale, while part two consists of five points self help ideology scale. A seven point Likert scale is used for 25 items, responses can range from strongly agree to strongly disagree. The scales have acceptable a reliability of .82–.91 and intercorrelations of .30–.55 and the individual items show acceptable item-total correlations of .50 and above (Linsey, 1997).

Social Network Questionnaire (SNQ). The SNQ was developed by the National Health Institute of Rome, Italy, in collaboration with the Psychiatric Department of Naples University. The instrument includes 15 items, measuring the following: frequent social contact ($\alpha = .68$), practical support provided by the social network (three items $\alpha = .75$), level emotional support provided by social network (five items $\alpha = .66$), practical and emotional support provided by an intimate relationship (three items, $\alpha = .56$) (Magliano et al., 2000).

In general, all of these instruments are not relevant with the concept of social support discussed in this study. In addition, the ISEL and the SNQ have low Cronbach's alpha scores (Cohen & Hoberman, 1983; Magliano et al., 2000). Even though several studies used the ISEL (Chiung-Yu, Sousa, Chun-Chin, & Mei-Yi, 2008; Cohen & Hoberman, 1983; Dick, Short, & Vitaliano, 1999), the population and the items measured did not match with those in this study. The examples: "If I needed

help fixing an appliance or repairing my car, there is someone who would help me”, “if I wanted to have lunch with someone, I could easily find someone to join me”, and “no one I know would throw a birthday party for me”. Therefore the researcher developed a perceived social support questionnaire to be used specifically for in this study.

Coping of Family Caregivers Caring for Persons with Schizophrenia

Concept of coping

There are several definitions of coping. Lazarus and Folkman (1984) defined “coping as the constantly changing cognitive and behavioral efforts used to manage specific external and/or internal demands that are appraised as taxing and that exceed the resources of the person” (p.141). Vaillant (as cited in Lazarus & Folkman, 1984) defined coping as the adaptive application of defense mechanisms”. The concept of coping is also defined by the behaviors subsumed under it, not by the success of those behaviors (Kahn as cited in Lazarus & Folkman, 1984). Keil (2004) concluded that coping implied dealing with adverse or stressful or difficult circumstances, as one could naturally manage an entirely benign situation.

Coping is viewed as an effort to manage a situation that is appraised as stressful. This means that coping involves cognitive appraisal. Cognitive appraisal consists of three activities, namely, primary appraisal, secondary appraisal, and reappraisal (Lazarus & Folkman, 1984). In interaction with the environment, a person will appraise whether or not the situation is irrelevant, positively relevant, or stressful. If he or she views the situation as stressful the person will then appraise the stressful

situation as harm or loss, threat, or challenge. Harm or loss involves a situation where stress has already occurred, threat involves a situation where there is the potential for harm, and challenge involves a situation that presents the opportunity for growth. This appraisal is called primary appraisal. After primary appraisal, a person will appraise what can be done to deal with problems, which coping options are available, probability coping options will accomplish problems, and probability a person can apply particular strategy. This appraisal is called secondary appraisal. These appraisals can change based on new information from the environment or other people. This is called reappraisal.

Primary appraisal and secondary appraisal result in coping choice. An individual will make an effort to cope to maintain his or her well being. Coping strategies to deal with a threat situation include emotion-focused coping strategies and problem-focused coping strategies. Emotion-focused coping strategies are used when a person appraises that nothing can be done to modify stressful situation. These coping strategies include self control, positive reappraisal, escape-avoidance, or distancing. However, problem-focused coping strategies are used if a person appraises a stressful situation as a situation that can be modified. Problem-focused coping strategies are often directed on defining problem, developing alternative solutions, weighing cost and benefit, choosing among them, and acting, such as planful problems solving, confronting problems, seeking social support, or accepting responsibility. In actuality, a person may use both problem-focused coping and emotion-focused coping (Lazarus & Folkman, 1984).

Lazarus and Folkman (1984) stated that there is no better coping method than others. However, the outcome of coping strategies can be considered

either effective or ineffective. Coping is considered effective if it can manage the problem and regulate the person's emotions. Appraisal and coping affect adaption outcomes including social functioning (the ways a person fulfill various roles), moral (outcome of emotions generated in a specific encounter), and somatic health/overall health.

Factors related to coping of family caregivers

There are several factors that contribute to coping. These factors are age (Watkins, Shifren, Park, & Morrell, 1998), gender (Keogh & Eccleston, 2006; Sharrer & Ryan-Wenger, 1995), educational level, knowledge (Lim & Ahn, 2003), personality (McCrae & Costa, Peacock & Wong as cited in Keil, 2004), health (Mengdan, Lambert, & Lambert, 2007; Lazarus & Folkman, 1984), problem solving and social skill, appraisal, commitment, beliefs, material resources, and social support (Lazarus & Folkman, 1984).

Age. Concerning age, a study conducted by Watkins et al. (1998) showed that older adults more frequently reported using maladaptive coping than younger caregiver did, but with mild symptoms (ambiguous). Ambiguously, older adults tend to use more problem solving coping strategies and are more active in seeking health care than younger adults.

Gender. Coping method between women and men may differ. Keogh and Eccleston (2006) conducted a study about sex differences in relation to chronic pain in adolescents. The subjects included 46 males and 115 adolescent females, all of who were suffering from chronic pain. The result showed that sex differences were a notable factor in coping behaviors. Females more used social support and, positive

statements, whereas males more often relied on distraction. For children, Sharrer and Ryan-Wenger (1995) stated that the coping strategies “watching television” and “yelling or screaming” were used more frequently by boy than girl. Girls were more likely to “cry” or to “cuddle with pet”. Girls generally had significantly higher levels of stress than boys did. There were also differences in the perception of the severity of specific stressors. Girls tended to worry about self concept but boys were more likely to worry about academic and job-related issues.

Educational level. Educational level was the best predictor of a caregiver’s coping pattern. People with high education levels use effective coping strategies because they understand the medical situations, as opposed to people with low levels of educational (Mengdan et al., 2007).

Knowledge. A study conducted by Lim and Ahn (2003) on 57 Korean caregivers of family members with schizophrenia showed that the caregivers’ knowledge of schizophrenia had an impact on their coping. The lower a caregiver’s knowledge, the more that caregiver used negative coping strategies.

Personality. Personality can influence how people deal with stressful situations. An optimistic person appraises a stressful situation as a controllable event. This appraisal will influence his or her selection of a coping strategy (Peacock & Wong as cited in Keil, 2004). Introverted people were found to blame themselves, withdrawal, indecisiveness and attempt escapism through escape fantasy when faced with the stressful situations. Thus they experienced poorer coping outcomes (McCrae & Costa as cited in Keil, 2004).

Health. Physical health was the best predictor of a caregiver’s coping patterns (Mengdan et al., 2007). A people who were sick, tired or in poor physical

health had less energy to expend on coping than healthy people did (Lazarus & Folkman, 1984).

Problem solving and social skill. Problem solving and social skills are important resources for coping. Problem solving includes the ability to search for information, analyze situation to identify purpose, identify actions alternatives, identify outcomes, and select an appropriate plan of action. Problem solving skills can help someone to prepare for action when dealing with an event (Lazarus & Folkman, 1984). Social skills are also important resources for coping. Social skill refers to the ability to communicate well with others. Communication allows individuals to share their problems, and this facilitates problem solving.

Appraisal. According to Lazarus and Folkman (1984) appraisal has an effect on coping. When a person encountered an event, a person will first judge the event as either irrelevant, benign-positive, or stressful (primary appraisal). After that a person will decide what action to take to preserve well being (secondary appraisal).

Commitment. Commitment can influence coping through appraisal. Commitment is an expression of what is important to a person and it underlies what people will do. A depth of commitment pushes people to take action and sustain hope (Lazarus & Folkman, 1984).

Beliefs. Beliefs are what people think is true. Beliefs can cause increase stress, when a person appraises a situation as a threat. Beliefs also can regulate emotional responses. One's belief in one's ability to control an event influences both how that event is appraised and subsequent coping activity (Lazarus & Folkman, 1984).

Material resources. Materials in this sense refer to goods, money, and service. In comparison with people without money, people with ample money have more coping options to deal with their stress. For example, they have easier access to medical or professional assistance (Lazarus & Folkman, 1984).

Social support. The quality of social support received by a caregiver affects those caregivers coping choices, since social support influences thoughts, feelings, and actions. In other words social support has an effect on how a caregiver copes with a situation (Lazarus & Folkman, 1984). Azar and Badr (2010) conducted a cross-sectional prospective study to examine the predictor coping on 147 Lebanese parents (101 mothers and 46 fathers) of children with an intellectual disability. They study found that factors which significantly predicted parental coping were social support, parenting stress, and the father's education.

Impact of coping of family caregivers on health-related outcomes

Coping can decrease their burden of caregivers and can help them attain a high quality life and well-being (Juvang, Lambert, & Lambert, 2007). Coping effectively will decrease the effects of stress and lower burden.

Coping also affects on social functioning, morale, somatic health, and anger control (Lazarus & Folkman, 1984). Social functioning refers to role fulfillment, and satisfaction with social relationships. It is determined by the effectiveness of appraisal of stressors and subsequent coping with the stressful event. However, morale is an outcome of emotion. Regarding to somatic health, ineffective coping will result in stressful conditions. Stress causes an imbalance in physical functioning.

Coping of family caregivers caring for person with schizophrenia

Several studies investigated coping in caregivers who were caring for patient with schizophrenia. A phenomenological study in Taiwan conducted by Xuan-Yi, Fan-Ko, Wen-Jiuan, and Chou-Mei (2008) involved in-depth interview with ten caregivers who had cared for schizophrenia patients for more than one year. The study showed that these caregivers mostly developed psychological coping strategies (cognitive, behavioral and emotional) and social coping strategies (religious, social and professional support) to deal with their problems.

Magliano et al. (2000) studied 159 caregivers of patients with schizophrenia living in five European countries. The results showed that a reduction of family burden over time was found among caregivers who adopted less emotionally-focused coping strategies, such as avoidant, resignation, and use alcohol/drug.

Mengdan et al. (2007) conducted study in China to investigate the relationship between the burden felt by parents of children with mental illness and their coping. The results showed that parents who maintained a functional family life, keeping optimistic, preserving social support and self esteem, and understanding medical condition experienced fewer burdens than those parents who did not do these things.

A study conducted by Jungbauer and Agermeyer (2003) used in depth interviews to study the coping behavior 28 spouse's of schizophrenic patients in Germany. The result showed that most caregivers used problem-solving coping strategies, such as seeking information and crisis planning. They used relaxation activities, time out, and temporal disengagement as coping strategies when they

perceived their situation as unchangeable. In long term, cognitive emotional strategies are great importance to deal with everyday burden.

Measurement of coping of family caregivers

There are several instruments to measure coping. These are the Coping Health Inventory for Parents (CHIP), the Ways of Coping Checklist (WCC), and the Jalowiec Coping Scale (JCS) as comparison.

The Coping Health Inventory for Parents (CHIP). The CHIP was developed by McCubbin et al. in 1979 to measure parental coping and attitudes towards their child's chronic illness. The CHIP is a self-reporting instrument consisting of a checklist of 45 items. The CHIP consists of three patterns: Pattern I (family integration, co-operation and an optimistic definition of the situation), Pattern II (maintaining social support, self-esteem and psychological stability), and Pattern III (understanding the health care situation through communication with other parents and consultation with health care practitioners). The Cronbach's alpha for the subscales are .97, .79. and .71 respectively. The coefficient alpha ranges from .84 to .89 over the three subscales (Wegmann, 1997).

Ways of Coping Checklist (WCC). The WWC was developed by Folkman and Lazarus. This instrument has been widely used in assessing coping in such areas as bereavement, chronic illness, and functional disability. The original instrument has 28 items, each of which is rated on a five-point Likert scale, ranging from 'never' to 'all the time'. Caregivers are asked how often they have used the listed strategies in the previous three months to deal with problems arising due to their contact with their patients. The items in the checklist refer to three categories of

coping strategies; 'problem focused', 'seek social support', and 'avoidance'. Coping strategies in the problem solving group include assessing the problem, deliberating on various actions which could be taken to reduce it, choosing the activities after careful thought on which would be helpful, devising an action plan and working out a solution. Strategies for seeking social support refer to taking advice and support from specialists, friends or relations; sharing one's feelings with others, and meeting other people with similar problems. Avoidance strategies in the list include resorting to smoking, acting out, hoping a miracle will happen to solve the problem, and avoiding meeting others. The Cronbach's alpha in the three studies ranged from 0.56 to 0.79 (Wegmann, 1997).

Jalowiec Coping Scale (JCS). The original of the JCS was developed in 1977 by Jalowiec. This instrument is based on Lazarus and Folkman theory of coping and is designed to measure coping strategies used in stressful situations (physical, emotional, or social stressors). The instrument is easier to use and to understand. It has been used in hundreds of different kinds of patient populations and patient family member's populations. The original JCS has 40 items divided into 15 problem-oriented items and 25 affective-oriented items. Subjects are asked to respond on a five-point scale (1 = never used to 5 = almost always). The total coping score ranges from 40-200, the affective-oriented coping strategies had a range from 25-125 and the problem-oriented coping strategies ranges from 15-75. A higher score denotes coping strategies that are more frequently used (Jalowiec, 2003).

The JCS has been revised in 1987 by Jalowiec. She revised it with the following change: adding the stressor of interest for the coping assessment, adding

more coping strategies, adding coping effectiveness, changing format, and expanding the conceptualization of coping (Jalowiec, 2003).

The revised JCS has 60 items which consist of eight coping strategies

(Appendix B: Part 3):

1. Confrontative constructive problem-solving, facing up to and confronting the problem. 10 items (4, 13, 16, 25, 27, 29, 33, 38, 43, 45).
2. Evasive doing things to avoid confronting a problem. 13 items (7, 10, 14, 18, 20, 21, 28, 35, 40, 48, 55, 56, 58).
3. Optimistic maintaining positive thinking or positive attitudes about a problem. 9 items (2, 5, 30, 32, 39, 47, 49, 50, 54).
4. Fatalistic pessimistic or hopeless attitudes toward a problem. 4 items (9, 12, 23, 60).
5. Emotive rely on expressing or releasing emotions to try to relieve stress. 5 items (1, 8, 24, 46, 51).
6. Palliative doing things to make oneself feel better, such as eating, drinking, or taking medication. 7 items (3, 6, 26, 34, 36, 44, 53)
7. Supportant using support system to cope, such as personal, professional, or spiritual. 5 items (11, 15, 17, 42, 59).
8. Self reliant depending on oneself to deal with a problem, rather than on others. 7 items (19, 22, 31, 37, 41, 52, 57)

The revised JCS consist of part A and part B. Part A asks how much a person has used the coping strategies and part B asks how effective the chosen coping strategies were in dealing with stressors. The internal consistency reliability was

measured by Cronbach's alpha, total use (Part A) is .88 while total effectiveness (Part B) is .91. Content validity is supported by broad supporting literature and the empirical base from which the coping items were drawn. The construct validity for the eight subscales is .85. The Likert scale for part A consists of: 0 = never used, 1 = seldom used, 2 = sometimes used, and 3 = often used. For part B: 0 = not helpful, 1 = slightly helpful, 2 = fairly helpful, and 3 = very helpful. Ratings for the coping strategies are summed separately for use and effectiveness. The greater the score, the more frequently the coping strategy is used. At the end of the revised JCS, the subjects can also list other coping strategies that are not included on the instrument (Jalowiec, 2003).

Based on the researcher's analysis, coping strategies in the revised JCS can be grouped into problem focused coping strategies and emotional-focused coping strategies. Overall, the items of confrontative coping include in problem-focused coping. The items of evasive coping, optimistic coping, fatalistic coping, emotive coping, and palliative coping include in emotional focused coping. However, the supportant and self-reliant coping are still not clear because the items in these coping strategies are a mix between problem-focused coping and emotional-focused coping. For supportant coping, most of the items were problem focused coping, except for item "prayed or put your trust in God", which is an emotional focused coping strategy. For self-reliant coping, "keep your feelings to yourself", "wanted to be alone", "tried to keep feelings under control" are emotional focused coping, but "thought about how you had handled other problems in the past", "told yourself that you could handle anything no matter how hard", "tried to improve yourself in some way so you could handle the situation better" are problem-focused coping.

In conclusion, the revised JCS was selected for this study because it was developed based on Lazarus and Folkman's stress and coping theory, it can be used for adult caregivers, it has a high internal validity and reliability, it is easy to administer, and it adds more coping strategies. The researcher only chose part A of the revised JCS due to the research question focuses on only the frequency of coping strategy used and based on conceptual framework of this study, frequency of coping used is determined by appraisal.

Burden of Family Caregivers Caring for Persons with Schizophrenia

Concept of burden

According to the literature review, *burden* has been a defined term since 1966. Grad and Sainsbury (1966) stated that burden is any negative impact on family caused by caring for an ill family member. Furthermore, burden was dichotomized into objective burden and subjective burden (Hoenig & Hamilton, 1966). Hoenig and Hamilton defined objective burden as events or activities associated with negative caregiving experiences, whereas subjective burden referred to negative feeling caused by their duties.

In contrast to Grad and Sainsbury's definition, Zarit, Reever, and Bach-Peterson (as cited in Chou, 2000) defined caregiver burden as the extent to which caregivers perceived negative emotional, physical, social, and financial as a result of caring for their relatives. They viewed burden as a product of the subjective perception of caregivers. The dimension of burden according to Zarit as follows: 1) burden in the relationship: caregivers' perception on the effect of caregiving on

present relationship with the care-recipient; 2) emotional well-being: caregivers' perception on the effect of caregiving on their psychological well-being; 3) social and family life: caregivers' perception on the effect of caregiving on their social life; 4) financial: caregivers' perception on the effect of caregiving on their financial; 5) loss control over one's life: caregivers' perception on the effect of caregiving on their health.

Platt (1985) stated that burden consists of objective and subjective burden. Objective burden involves disruption to family or household life that is potentially verifiable and observable. However subjective burden involves the feelings that caregivers share with others regarding their caring effort. Montgomery, Gonyea, and Hooyman (1985) also divided burden into objective burden and subjective burden. They stated that subjective burden is caused by emotional reactions brought about by the caregiving experience, while objective burden is the disruption or change in aspects of a caregiver's household or lifestyle. In contrast, Braithwaite (1992) argued that the distinction between an experience and the distress it causes is not clear. Braithwaite defined burden as a caregiver's distress arising from dealing with a patient's physical dependence and mental incapacity.

In the past, burden was viewed as a subjective or objective dichotomy. However, the term *caregiver burden* is now more widely used to describe the negative physical, psychological, or emotional, social and financial effect that are experienced by family caregivers (Chou, 2000).

In conclusion, burden can be defined as the negative impact of caring for an impaired person which is experienced by the caregiver. In this study I used

Zarit's burden concept, because he stated impacts of caregiving on whole function including physical, psychological, social, and financial.

Factors related to burden of family caregiver

Based on finding from the literature review, caregiver burden is influenced by several areas. These areas are grouped into three factors: caregiver factors, patient factors, and environmental factors.

Caregiver factors

Caregiver factors are factors that arise from the caregiver. These factors are: a) age (Juvang et al., 2007); b) gender (Schneider, Steele, Cadel, & Hemsworth, 2010); c) educational level (Juvang et al., 2007); d) income (Andren & Elmstahl, 2007); e) health status (Mengdan et al., 2007; Shu-Ying, Chiao-Li, Yi-Ching, For-Wey, & Chun-Jen, 2008); f) time spent giving care per day (Chii et al., 2009; Juvang et al., 2007); g) knowledge (Sefasi, Crumlish, Samalani, Kinsella, & O'Callaghan, 2008); h) culture and spiritual background (Janevic & Connell, 2001; Spurlock, 2005); and i) coping (Mengdan et al., 2007; Magliano et al., 2000).

Age. Caregiver's age is one of the factors that are related to burden. A study by Juvang et al. (2007) investigated the relationship between demographic characteristics and caregivers' burden for those providing care for a family member with schizophrenia in China. The purposive sampling technique was used to recruit 96 subjects from three hospitals. The findings showed that caregiver age was positively correlated with subjective demand burden and subjective stress burden on caregivers. When caregivers become older, they are worry about who will care for their ill family

member in the future. In contrast, younger caregiver reported that the feeling that life is worth living was a result of their duties (Fujino & Okamura, 2009).

Gender. Gender influences burden for caregiver. However, men and women may experience this burden differently. Schneider et al. (2010) conducted a study in Canada to determine gender differences regarding burden for 273 parents caring for children with life-threatening illness. The results showed that there was a significant difference between genders. Women had higher scores than men for caregiving depression and burden, and had a lower score for optimism. This can be explained by social gender roles and hormone. In regards to social roles, women are predominantly caregiver, as they spend more time caregiving than men do. In term of hormone, oxytocin hormone contributed both females' distress and the women's need to nurture, so the women felt a greater need to pay attention to their patients. Therefore, the women experienced greater burden than the men.

Educational level. Caregiver educational level was also found to be related to caregiver burden. Juvang et al. (2007) investigated the relationship between demographic characteristics of caregivers and caregiver burden for people providing care for a family a member with schizophrenia in China. Their findings showed that education level was negatively correlated with caregiver burden, and that it was the best predictor of caregiver burden. It was assumed that the higher one's level of education, the higher one's salary was. A high salary was assumed to decrease caregiver financial problems providing care for ill family members. More educated caregivers also tended to have more knowledge on how to deal with such stressful situation.

Income. Income contributes to caregiver burden. In Sweden, Andren and Elmstahl (2007) examined the relationship between income, subjective health, and caregiver burden for caregivers of patients with dementia. The findings showed that low income was associated with a high degree of burden for caregivers. Low income was a stressor factor for caregivers, as aside from having to provide care for an ill family member, caregivers also had to cope with their financial problems.

Health status. The health status of caregivers is related to their level of burden. Caregivers with good health experienced lower levels of subjective stress burden. The best predictors of caregiver burden are their health status (Mengdan et al., 2007) and self perceived toward their health condition (Shu-Ying et al., 2008). Regarding psychological health status, Fujino and Okamura (2009) conducted a cross-sectional study in Japan to identify factors affecting burden felt by 30 people caring for mental illness. Result study showed that psychological health status was associated with burden.

Time spent giving care per day. Time spent caregiving per day may be related to level of burden. Chii et al. (2009) studied the relationship between social support received and caregiver burden in 315 caregivers in Taiwan. One of the sub variables of social support received was caregiving circumstances. The results showed that there was a significant positive correlation between hours of care provided per day and caregiver burden. The higher the number of hours, the greater the caregiver burden was found to be. A study in China investigated the relationship between the demographic characteristics of caregivers and caregiver burden (Juvang et al., 2007). The study found that there was a positive correlation between the amount of time that caregivers spent with their patients and the objective burden experienced. More time

spent with patients resulted in greater objective burden felt by the caregivers. This finding was logical, as when caregivers spend more time with their patients, they naturally have less time for themselves.

Knowledge of schizophrenia. According to a study done by Sefasi et al. (2008) in Malawi, knowledge influences burden. However, their finding was contradictory to their hypothesis. They found that greater caregiver knowledge result in greater caregiver burden. They explained that this may be related to culture. In Malawian culture, a person who has high knowledge thinks of threatens a patient medically rather than traditionally. Hence, these caregivers believed that the disease could be cured and that they were responsible for this. In the end, it was thought to have an impact on their burden. In contrast other study conducted by Lim and Ahn (2003) showed that caregiver's knowledge had an indirect impact on the burden through negative coping, indicating that the less caregiver's knowledge, the more caregivers use negative coping, which result in caregiving perception of subjective burden.

Cultural and spiritual background. Janevic and Connell (2001) did a research review on 21 studies and 18 samples include: African Americans, Chinnese, Chinese Americans, Koreans, Koreans Americans, Latinos, Caucasians, and residents of 14 European Union countries. The study's purpose was to compare two or more racial, ethnic, national, or cultural groups' regards to the dimensions of dementia caregiving experience. The results showed that spousal caregivers were primarily Caucasians, as opposed to belonging to other groups. Also white caregivers experienced more depression and stress than African American caregivers did. Differences in coping and social support may have accounted for this. However,

members of minority groups may receive less support than Caucasians. Spurlock (2005) conducted a study on the relationship between spiritual well-being and caregiver burden on 148 Alzheimer's disease caregivers (71 African Americans and 77 Caucasians). The result showed that there was a significance different difference in in spiritual well-being and burden between the African Americans and the Caucasians. Caucasians tended to experience more stressful from caregiving than African Americans. African Americans used prayer as a coping strategy, but Caucasians more likely sought professional assistance. Hence, religious practices shaped how members of these ethnic groups approached caregiving.

Subjective perception. Sometime in similar situations, burden can affect one caregiver seriously but not the others. Romeis (as cited in Chou, 2000) stated that evaluation of burden was based on how the caregivers interpreted the demand of the ill person and how the caregivers organized and used available resources. Therefore the concept of burden involves the subjective perceptions of caregivers. In other words, burden is somewhat determined by a caregiver's subjective perception.

Coping. Mengdan et al. (2007) conducted a study in China to investigate the relationship between burden and coping for parents of children with mental illness. The results showed that parents, who maintained a functional family life, kept optimistic, preserved their social support and self-esteem, and understood the medical conditions experienced fewer burdens. Another study found that a reduction of family burden over time was found among relatives who adopted less emotion-focused coping strategies (Magliano et al., 2000).

Patient factors

Burden can be caused by patient factors. These are age (Juvang et al., 2007), clinical symptoms (Grandon Jenaro, & Lemos, 2008; Perlick et al., 2006; Roick, Heider, Toumi, & Angermeyer, 2006; Shu-Ying et al., 2008; Tang, Leung, & Lam, 2008); and disability in daily life (Shu-Ying et al., 2008)

Age. A study by Juvang et al. (2007) in China investigated the relationship between demographic characteristics of caregivers and family caregiver burden when providing care for a family member with schizophrenia. The finding showed that there was a correlation between patient age, subjective stress burden and subjective demand burden. Younger patients with schizophrenia were less able to take care of themselves, and they were likely to be in the early stage of the disease. The consequences of this were greater burden on caregivers, who felt they would need to care for the patients for a long time period. Another study in Africa also showed that caregivers who had patients with schizophrenia exhibit a very high degree of burden, especially when caring for younger patients (Caquez-Urizar & Gutierrez-Maldonado, 2006). This was most likely because the younger patients probably required more caregiving effort and more of the caregivers' time.

Clinical symptoms. Clinical symptoms influence caregiver burden. Several studies found that clinical symptoms were predictors of caregiver burden (Perlick et al., 2006; Roick et al., 2006). Positive symptoms better predicted caregiver burden than negative symptoms did (Grandon et al., 2008; Tang et al., 2008). Caregiver burden was determined by the severity of patient symptoms (Shu-Ying et al., 2008). Symptoms caused by disease were associated with impaired health functions. These health conditions influenced patient's behavior and capability for

conducting daily activities. For severe disease, caregiver burden may be due to characteristics of the disease and the fact that the patient may require long term care.

Disability in daily life. Fujino and Okamura (2009) conducted a cross sectional study in Japan to identify factors affecting the sense of burden felt by caregivers caring for family member with mental illness. Data were gathered from 30 patients and 30 family caregivers at a rural psychiatric hospital. The result study showed that the disability of the patients' in daily life and in community functions was associated with caregiver burden. The patients' impairment regarding participation in social functions was associated with the severity of illness. In the end, this resulted in limiting the time, energy and attention of the caregiver.

Environmental factors

Environment factors are related to burden. These include mental health services and their utilization (Roick et al., 2007), and social support (Chii et al., 2009; Magliano et al., 2000).

Mental health services and their utilization. Roick et al. (2007) conducted a study on 333 German caregivers and 170 British caregivers of patients with schizophrenia in order to compare caregiver burden in term nationality. The results showed that caregivers from both countries experienced burden. However, the British caregivers reported more burden than the Germans did. The major difference related to the national provision of mental health service. The current per capita expenditure on mental health in Germany is higher than in Britain. For example, Germany has on average 7.5 psychiatric beds per 10,000 people, whereas Britain has only 5.8. Therefore, the unmet care needs (covering the dimension of basic living conditions, health care, functioning and service) seem higher among people with

schizophrenia in Britain. The study proved that the utilization of community health services decreased caregiver burden. Schizophrenic patients who utilized community health services routinely were able to increase their capability for performing daily activities. Therefore, it was concluded that greater health services resulted in decreased caregiver burden (Roick et al., 2006).

Social support. Another study was conducted by Chii et al. (2009). They studied 301 caregivers in Taiwan to examine the correlation between caregiver burdens and perceived and received social support. The sub variables perceived social support were social support, family functioning and network, and the sub variable. Received social support included alternative helpers, and utilization of formal support. The results showed that perceived social support and perceived family functioning were negatively correlated with caregiver burden. Utilization of formal support was positively correlated with burden. Informal support was negatively correlated with burden. Caregiver burden increased when informal support could not meet caregiver needs. In addition, supporters were also correlated with burden. Supporters could reduce burden if they fulfilled unmet needs of the caregivers. Magliano et al. (2000) also found that a reduction of family burden occurred over time among relatives who received high level of practical support from their social network (Magliano et al., 2000).

In conclusion, even though there are many factors related to burden, the critical factors were found to be coping and perceived social support. In addition, social support is a resource for caregivers that affect their adaptation. It is associated with effective coping because supporters can reduce burden by meeting unfulfilled caregiver needs.

Impact of burden of family caregivers on health-related outcomes

Burden impacts on the quality of life and level of depression. A literature review conducted by Caqueo-Urizar, Gutierrez-Maldonado, and Miranda-Castillo (2009) found that caregiver quality of life is affected negatively by physical, emotional, and economic distress arising from a number of unfulfilled needs. These include the patient's inability to function in the family and the caregiver's social roles, economic burden, and lack of spare time.

In addition caregivers' negative feelings result in poor care received by patients, including mistreatment and even violence. This poor behavior makes patients feel distressed and it can cause relapse (Bostrom & Boyd, 2005; Havens, 1999).

Burden of family caregivers caring for persons with schizophrenia

Many studies were developed to measure the burden of family caregivers caring for family members with schizophrenia. The results of those studies showed that caregiver definitely experienced burden (Caqueo-Urizar & Gutierrez-Maldonado, 2006; Grandon et al., 2008; Roick, et al. 2007; Shu-Ying et al., 2008).

Galagher and Mechanic (1996) conducted a study to compares the health outcomes of subjects living with a mentally ill person (N = 776) and subjects not living with a mentally ill person (N = 716). They examined the effect of living with the mentally ill on three dimensions of health and functioning, namely, self-reported physical health, service utilization, and activity limitation. The researcher found that respondents living with a mentally ill person reported poorer physical health, more visits to physician, and greater activity limitations than respondents who did not live with a mentally ill person.

In general, most caregivers who care for family members with schizophrenia feel burden. Burden has on physical, financial, psychological and social difficulty impacts.

Measurement of burden on family caregivers

From the literature review, measurements scales used to measure the burden of family caregivers were found to include the Zarit Burden Interview (ZBI), Caregiver Burden Scale (CBS), Caregiver Burden Inventory (CBI), and Burden Assessment Scale (BAS).

Zarit Burden Interview (ZBI). The ZBI was developed by Steven H. Zarit in 1980. It was designed to measure the level of burden experienced by the principal caregivers of both elderly people with senile dementia and disabled persons. It covers five dimensions, including burden in the relationship, emotional well-being, social and family life, finances, and loss of control over one's life. The original version consisted of 29-items, but it was revised to 22 items on a self-report scale by Zarit and coworkers in 1985. Most researchers use the revised version (22 items). The item scale ranges from 0 to 4 (0 = never, 1 = rarely, 2 = sometimes, 3 = quite frequently, 4 = nearly always), except for item 22 (0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, 4 = extremely). The greater the score, the more burden exist (Zarit, personal communication, July 29, 2010; Taub, Andreoli, & Bartolucci, 2004). It is regarded as having a high internal consistency as measured by Cronbach's alpha at .91 and its test re-test reliability was reported at .71 (Knight, Fox, & Chih-Ping, 2000).

Caregiver Burden Scale (CBS). The CBS was developed by Montgomery in 1986. It is used to measure the burden experienced by caregivers who are caring for loved ones. Three relatively independent main variables are addressed. They are objective burden, subjective demand burden, and subjective stress burden. The scale consists of 14 items, which include six items for objective burden, four items for subjective stress burden, and four items for subjective demand burden. Each item indicates the perceived level of burden on a five point Likert scale (1 = a lot more, 2 = a little more, 3 = the same, 4 = a little less, 5 = a lot less). Higher scores indicate greater levels of caregiver burden. In term of objective burden, the scores range from 6 to 30. This part has an internal consistency (Cronbach's alpha) ranges from .87 to .90. For subjective demand burden, the total score ranges from 4 to 20. The reliability (Cronbach's alpha) of this part ranges from .68 to .82. In term of subjective stress burden, the score ranges from 4 to 20. It has an internal consistency ranging from .81 to .88 (Montgomery, n.d)

Burden Assessment Scale (BAS). The BAS was developed by Reinhard, Gubman, Horwitz, & Minsky (1994). The BAS is used specifically for subjective and objective burden. It is consists of 19 items. Ten items measure objective burden and nine items measure subjective burden. Each item is rated on 1 - 4 point scale (1 = not at all, 2 = a little, 3 = some, 4 = a lot). Higher scores indicate greater levels of caregiver burden. The internal consistency (Cronbach's alpha) of the BAS has been reported by two samples to be alpha at .91 and .89 (Ivarson, Sidenvall, & Carisson, 2004).

In conclusion, the ZBI was selected for this study because it captures the conceptual definition of burden and has a high internal consistency, as measured

by Cronbach's alpha at .91. Even though the ZBI was originally used for caregivers of the elderly, it can nevertheless be used for caregivers of patients with schizophrenia (Fujino & Okamura, 2009; Setsuko, Goro, Hiroyuki, Minoru, & Yasuyuki, 2008). In addition, the ZBI is easy to administer and its copyright status makes it freely available for use.

Relationship between Social Support and Coping of Family Caregivers

In this present study, caring for a person with schizophrenia is assumed to be a stressful situation. Stress can be appraised as a harm or loss, threat, and challenge. After a person appraises a stressful situation as harm, threat or challenge, he or she will appraise what might and can be done, this called secondary appraisal. In this present study, social support was assumed as a secondary appraisal. Family caregivers may appraise a situation as a situation that can be modified and they may appraise social support as a resource that will solve their problems, and probability family caregivers seek social support as a particular strategy. This perception makes a person confront their problems or keep positive thinking, because social support can facilitate the caregivers to share problems, provide sympathy, and give helpful suggestions (Suls as cited in Lazarus & Folkman, 1984). However, emotion-focused coping is more likely to occur when a person appraises a situation as a threat and nothing can be done to modify the harmful, threatening, or challenging situation. To lessen emotional distress, a person may avoid the problem, feel hopeless, and self blame, or doing an enjoyable activity to decrease their negative feeling. These coping

strategies can regulate negative emotions and feelings only for a short while, because the problem still exists (Lazarus & Folkman, 1984).

Several studies have been done which have focused on coping and social support. Tak and McCubbin (2002) conducted a study to explore the relationships among family stress, perceived social support, and coping, and to determine the resiliency factor associated with coping in the USA. The subjects consisted of 92 families who had a child under the age 12 who had been diagnosed with congenital heart disease (CHD) within the past three to four months. The results showed that perceived social support served as a resiliency factor between family stress and family coping. Knowing maternal and paternal perceived social support make a significant contribution towards the prediction of maternal and paternal coping ($\beta = .39, p = .000$; $\beta = .29, p = .007$). If a parent perceives the presence of extensive social support, it can be predicted that he or she will exhibit more effective coping. Emotional support and instrumental support were considered critical resources necessary for a beneficial effect.

Azar and Badr (2010) had conducted a study on 147 Lebanese parents with intellectually disabled children. Their study included examining perceived social support and coping among parents. They concluded that social support was significantly correlated with coping patterns ($r = .27, p < .002$). The coping strategies in this study included 1) coping pattern I: the maintenance of family integrity, cooperation, optimistic definition of situation; 2) coping pattern II: maintenance social support, self esteem, psychological stability; and 3) coping pattern III: understanding of the information related to the child's health care through communication with other parents and consultation with health care teams. The informal support that parent

received from their family, relatives, and friends seem to enable them to cope with the difficulties.

Another correlational study was conducted by Lopez-Martinez, Esteve-Zarazaga, and Ramirez-Maestre (2008) on 117 patients with chronic pain in Spain. The findings indicated a negative relationship between passive coping (maladaptive coping) and perceived social support ($r = -.11, p < .05$). Passive coping positively correlated with depression ($r = .29, p < .05$). Active coping negatively correlated with depression ($r = -.40, p < .05$). Interestingly, active coping (adaptive coping) was not related to perceived support ($r = .08, p > .05$). Low perceived social support resulted in increased pain. When patients felt more pain, patients used passive coping more.

Valle, Yamada, and Barrio (2004) conducted a study on 89 caregivers who provided homecare assistance to an older adult with dementia including 39 Latino and 50 Euro-American. This study was aimed to examine the ethnic differences in use in an informal social network for help caregiving task. They use descriptive, bivariate, and multivariate analyses to analyses data. The result of the bivariate analysis found that there was correlation between perceived availability of social network, satisfaction with support received, caregiver distress and help-seeking behavior ($r = 0.3, p = .005$; $r = -.02, p = .862$; $r = -.27, p = .01$).

Grant et al. (2006) did a study on 52 family caregivers (46 women, 6 men) of stroke survivors (28 women, 24 men). The purposes of the study were to determine social support and social problem solving abilities to predict the adjustment of family caregivers of stroke survivors. Their study found that social support was associated with lower caregivers' depression and a higher level of well being and

general health, and independent social problem solving which contributed to the adjustment of caregivers to their stroke survivor family member.

A study was conducted by Ortega and Alegria (2002) among Puerto Ricans living in low income areas selected by random sampling. The aim was to examine the relation of self-reliance and five mental health care utilization (mental health care, general health service, specialty care, psychotropic medication, retention in mental health care). The result showed that 62% of Puerto Ricans reported a self-reliant attitude, 13% had used mental health care, there are negative association between self-reliant and five mental health care utilization.

In general, the studies found that there was a correlation between social support and coping. However, a correlation between social support and coping specifically relating to caregivers caring for a person with schizophrenia was not found in any literature. While there are some other studies regarding coping and social support, they were, for the most part, conducted in developed countries and focused mainly on patients rather than caregivers.

Relationship between Coping and Burden of Family Caregivers

Caring for a person with schizophrenia can result in a stressful situation for family caregivers. Family caregivers need to make an effort to manage a stressful situation while caring after he or she appraises what can be done to deal with problems while caring, this effort is called coping. Appraisal proved whether coping is oriented toward emotion regulation or (emotional-focused coping) or doing something to relieve the problem (problem-focused coping). Emotional-focused

coping occurs when a family caregiver appraises that nothing can be done to modify the stressful situation while caring. Strategies that were directed at lessening emotional distress involved avoidance, positive thinking, a feeling hopeless, doing enjoyable activities to make one feel better, or blaming. However, problem-focused coping strategies are often directed on defining the problem, developing alternative solutions, weighing the costs and benefits, choosing among the strategies, and acting upon them. These coping strategies include confronting problems, or making a plan to deal with problem. The goodness strategy is determined only by effectiveness coping to deal with problems in a long time period. Coping is effective if it can manage a problem and regulate negative emotional feelings that result in adaption outcomes or less burden (Lazarus & Folkman, 1984).

The relationship among a caregiver coping and burden has been reported by researchers. Mengdan et al. (2007) examined the differences between parental burden and parental coping patterns for Chinese parents of children with mental illnesses. Burden was measured by the caregiver burden scale (Montgomery as cited in Mengdan et al., 2007). Coping was measured by the coping health inventory for parents (Mc. Cubin as cited in Mengdan et al., 2007). The findings showed that both mothers and fathers experienced high levels of burden, especially in subjective stress burden. The researchers also found that there was a negative correlation between parental coping and parental burden ($r = -.26, p \leq .01$). Parents who maintained functional family life, kept optimistic, preserved social support and self-esteem, and understood medical conditions experienced fewer burdens than those who did not.

A group of experts in psychiatry and community mental health conducted a comprehensive longitudinal study on 159 caregivers caring for patients with schizophrenia in five European countries: Italy, Greece, Portugal, England and Germany. According to the literature review conducted and the study findings by Magliano et al. (2000) the following can be concluded: 1) the level of family burden can change over time; 2) the level of caregiver burden is influenced by a patient's nature and by a patient's improvement in social functioning; 3) the level of caregiver burden is influenced by the type of coping styles used; and 4) the level of caregiver burden is improved by the presence of social support from a social network, and is unlikely to improve in the absence of specific intervention. The researcher found that, as a whole, family burden and coping strategies was relatively stable over the one year follow-up period. Significant and positive correlations were found between avoidance coping and objective and subjective burden ($r = .28, p < .0001$; $r = .25, p < .001$), resignation coping and objective and subjective burden ($r = .55, p < .0001$; $r = .56, p < .0001$). It might be that when caregivers cannot cope effectively, with the stressful event while caring, patients social functioning will decrease, and burden will increase.

In conclusion, several studies have shown that coping is associated with caregiver burden. However, most of the studies were conducted in Western countries. Further study is needed to examine the cultural differences in the relationship between coping and the burden of family caregivers, particularly for caregivers caring for persons with schizophrenia.

Relationship between Social Support and Burden of Family Caregivers

Based on Lazarus and Folkman's transactional model of stress and coping (1984), the relationship between social support and burden on family caregivers caring for persons with schizophrenia was explained by their appraisal toward what can be done (secondary appraisal) to manage stressful situations in regard to caring for a person with schizophrenia. Family caregiver's appraisal toward frequently received social support will influence their coping effort to manage a stressful situation. If a family caregiver perceived a high level of frequently received social support, he or she may make the effort to seek support to solve his or her problems. Social support can facilitate a caregiver to use effective coping, such as problem-focused coping. These coping efforts have an effect on reducing the burden of the family caregiver.

Another study was conducted by Chii et al. (2009) on 301 caregivers in Taiwan to examine whether burden is related to perceived and received social support. The findings showed that informational and instrumental supports were frequently received, but emotional support was received the least. Perceived social support negatively correlated with caregiver burden ($r = -.22, p < .001$). Perceived social support was better to reduce burden than received social support. Because two of the measures of social support in this study are not identical and interchangeable, they recommended that the role of perceived social support and received social support should be further investigated.

Magliano et al. (2002) did a study on 709 Italian patients with schizophrenia and their caregivers. The aim of the study was to explore caregiving

burden and support received from professionals and the social network for relatives of patients with schizophrenia. The findings showed that caregiver practical and psychological burdens were associated with professional support ($r = -.20$, $p < .0001$; $r = -.20$, $p < .0001$). Caregiver practical and psychological burdens were associated with social network support received: psychological support ($r = -.22$, $r = -.22$; $p < .0001$), practical support ($r = -.26$, $r = -.16$; $p < .0001$), support in an emergency concerning the patient ($r = -.26$, $r = -.19$, $r = -.26$; $p < .0001$). Caregiver who received psychological support, practical support, and support in emergency concerning burden will experience less burden due to social support mediating burden through effective coping.

Magliano et al. (2000) did a longitudinal study on 159 caregivers caring for patients with schizophrenia in Italy, Greece, Portugal, England and Germany. They found that the caregiver burden was reduced in the presence of social support from social networks. There was a significantly negative correlation between practical support from social network and objective burden ($r = -.26$, $p < .001$) and practical support from social networks and subjective burden ($r = -.25$, $p < .01$). Practical support from social network and psychological support might result in caregivers to cope effectively.

Grant et al. (2006) conducted study on 52 family caregivers (46 women, 6 men) of stroke survivors (28 women, 24 men). The purposes of this study were to determine social support and social problem solving abilities to predict the adjustment of family caregivers to stroke survivors. Their study found that perceived social support was associated with lower caregivers' depression and a higher level of well being and general health, and independent social problem solving which

contributed to the adjustment of the caregivers. People who are more likely to thrive in the caregiver role may be buffered by social support.

Wai-Tong, Chan, and Morrissey (2007) did a study on 203 Chinese families caring for a relative with schizophrenia in Hong Kong. They reported that a family who aged over 40 years old with a lower monthly income experienced a higher level of burden. Burden negatively correlated with perceived social support ($r = -.62$, $p < .01$). When social support was high, families would experience fewer burdens, because perceived social support can act as a buffer for family distress and difficulties while caregiving.

In conclusion, several studies have showed that social support is associated with caregiver burden. However, most of the studies were conducted in Western countries. In consideration of cultural differences, further studies are needed to examine the relationship between social support and the burden of the family caregiver particularly on a caregiver caring for a schizophrenia person. This study will be useful in identifying the types of social support that can best minimize caregiver burden.

Cultural Context of Muslim and Sundanese in Indonesia

Indonesia is an archipelago country which has around 17,508 islands across the equator. The five largest islands are Sumatra, Java, Kalimantan, Sulawesi, Irian Jaya, and 59% of Indonesian people live on Java Island. There are approximately 300 ethnic groups that can be grouped into the eight largest ethnicity including: Javanese (52.1%) in Central and East Java, Sundanese (19.3%) in West

Java, Minang (3.5%) in West Sumatra, Maduranese (2.9%) in Madura island, Banjar (2.4%) in Kalimantan, Batak (2.3%) in North Sumatra, Buginese (1.8%) in South Sulawesi, and Balinese (1.7%) in Bali. Moreover, there are five religions in Indonesia including Islam (87%), Protestant (6.5%), Catholic (3.6%), Hindu (1.5%), and Buddhism (data not available) (Hidayat, 2002).

Sundanese is the second largest ethnic in Indonesia, but it is the largest ethnic group in West Java Province. Most of Sundanese people are Muslim (98.26%) and they still keep traditional beliefs (Koentjaraningrat as cited in Sarwono, n.d) that differentiate with Western culture. Okasha (2007) has defined the difference between traditional and Western society. In traditional society, most of them live in an extended family, they are family and group oriented, status is determined by age and position in the family, decision making is dependent on the family, they have an external locus of control, respect the decisions of the elderly, family care for their member's illness, dependent on God in health and disease. However, in Western society, most of the population lives in nuclear family unit and are individually oriented, status is achieved by one's own effort, decision making is determined by oneself, they have an internal locus of control, dependent on oneself in health and disease, and generally tend to search for care from health services.

In a social relationship context, commonly, Sundanese family lives in an extended family, such as with other relatives with the nuclear family in one household (Widjaya as cited in Zevalkink, Riksen-Walraven, & Lieshout, 1999). Sundanese parents usually value a large number of children, they believe that children have significance for Sundanese parents (Suhamihardja as cited in Zevalkink et al., 1999). However, after the implementation of family planning since 1969, the total

fertility rate in Indonesia declined (Niehof, 1998). Sundanese people usually live in areas that are high density and in large substandard houses. These result in close relationships among neighboring families (Guines as cited in Zevalkink et al., 1999).

Close relationships among Sundanese people also are supported by their believe that a relationship with anyone should be based on value "*silih asih, silih asah, silih asuh*", it means that people should care, love and guide each other (Suryani, n.d). The Moreover, Muslim-Sundanese people believe that the existence of a community can be viewed as a coherent unit, this commitment emerge sense of sharing in the indeterminacy of fate. In Sundanese, Muslim beliefs are important and contribute to the daily life because religious practices are very dominant among Muslim-Sundanese. Since children, parents have introduced Islamic education for their children. (Niehof, 1989). In the Sundanese community, there are religious-social activities that are commonly done by women, such as an Islamic organization or "*pengajian*". These activities can build relationships or create relaxation for them (Niehof, 1998).

In terms of health beliefs, Sundanese people believe that in the daily life they are always interacting with threatening situation, so they should maintain stability affected by nature. Good health, economic security, and the well being of loved ones, are considered enough for satisfaction, but suffering is attributed to moral and religious inadequacy. Sundanese people recognize mental illness as a certain disorder (*sakit kepala*, illness of the head). They believed that this phenomenon is caused by physiological and psychological. Physically, it is caused by physiological imbalance, but psychologically, it is caused by a patient's moral-spiritual disorder that influences the functioning of the mind. They describe "inner" as *hawa nafsu* (climate

of feeling) influenced by an up and down feeling rhythm, such as anger is caused by a hot feeling. Sundanese people usually believe to “*ulama*” (Islamic religious functionaries) as a local healer. Local healer treats the patient by three cooling technique, preparing a glass of prayed water, bathing, massage, diet control. Ritually, *ulama* prepared a glass of prayed water for their patients (Horikoshi-Koe, 1979). Moreover, Muslim believes that illness, suffering and dying are part of life and is a test from Allah, therefore these should be received with patience, meditation, prayer, and seeking treatment. Illness should be seen as an event or a mechanism of the body to cleanse, purify, and balance physical, emotional, mental, and spiritual areas (Seikh Moinduddin Chisti as cited in Rassool, 2000).

In terms of caring, a mother is usually the primary caregiver for children. When a mother does not show good responsibility for their children, they usually will be criticized by neighbors or family members (Adimihardja & Utja as cited in Zevalkink et al., 1999) because one of Sundanese people beliefs is “*silih asih, silih asah, silih asuh*”, which means that people should care, love and guide each other (Suryani, n.d). In addition the role of a mother for Indonesian people is to safeguard the family. Even for poor women who have no other dependents other than their own children, the role of the mother is restricted to being a good mother for their children (Niehof, 1998). Sundanese people also believe that when people help others, particularly a mother to her children, it should be given voluntarily (Suryani, n.d). In addition, Muslim people believe that caring is a act of doing good (*ma'aruf*) evading wrong doing (*munkar*), Allah expects humans to care for the weak, suffering, and the outcasts in society, and the natural outcome of having a love for Allah and the Prophet (Rassool, 2000). However, economic stress is found in most Sundanese

families because having a stable income is rare. Hence, low occupation status and poverty have been found to influence caregiving negatively (Chase-Lansdale & Owen; Gecas; Greenberger, O'Neill, & Nagel as cited in Zevalkink et al., 1999).

In conclusion, Sundanese is the largest ethnic in Western of Java Island of Indonesia and most Sundanese people are Muslim. Sundanese values and Muslim beliefs are dominant in their daily life.

Summary of the Review of the Literature

The literature review indicates that schizophrenia is a severe and chronic mental disorder. The family caregiver is the person most often involved in caring for a person with schizophrenia. As the nature of the symptoms of schizophrenia is unpredictable, the family caregiver often experiences burden.

In terms of social support, coping strategies, and burden, there are several definitions, contributing factors, impacts on health, measurements, and correlations among these variables. Social support occurs due to a social network and relationship with each other, it can be perceived and received support. A coping strategy is the effort to deal with problems. Burden is a negative impact on physical, psychological, and financial resources as a result of performing a task. Factors contributing to these variables involve caregiver factors, support provider factors, patients' factors, and environmental factors. Social support and coping were identified as important factors for maintaining a caregiver's well-being. From the literature, there are several measurements to measure these variables, social support including the ISEL, the PRQ, and the SNQ; coping measurements including the CHIP, the

WCC, and the JCS; and burden including the ZBI, the CBS, and the BAS. Several studies indicated that there is a relationship positively and negatively among social support, coping, and caregiver burden.

The literature review indicated that most studies were conducted in Western countries, none of the studies were conducted in Indonesia. Culturally, beliefs and religion of Indonesian people, particularly Sundanese, are different with Western.

CHAPTER 3

METHODOLOGY

The researcher used two approaches while conducting the study. The first approach was a literature review. A literature review was done in order to get a full understanding about study variables. The main purposes of this review were to review concepts and factors related to the burden of family caregivers caring for patients with schizophrenia.

The method of the literature review was started by searching the relevant literature from databases. The databases used to carry out the literature search included PubMed, CINAHL, and Science Direct. The key words used to retrieve sources were caregiver burden and schizophrenia. Searching was limited to the English language, full text, and the year of publication from 2000 to 2009. Twenty two studies were reviewed.

The findings showed that the caregivers caring for patients with schizophrenia experienced burden. Overall, burden was defined as a negative impact of caring for the impaired person experienced by a caregiver on their activity (objective burden) or feeling (subjective burden) that involves emotional state, physical health, social life, and financial status. Factors related to the burden on the family caregiver were grouped into: 1) caregiver's factors included age, gender, educational level, income, health status, and the amount of time per day spent caregiving, knowledge of schizophrenia, culture, and coping; 2) patient's factors included age, clinical symptoms, and disability in daily life; 3) environmental factors included mental health service and social support. From the findings, most of the

previous study findings cannot be generalized due to small sample sizes used in the studies and also the fact that the studies were conducted in Western countries. The details of this literature review were presented at the Java International Nursing Conference and published in *Nursing Media Journal of Nursing* (Rafiyah & Suttharangsee, 2011).

The following approach was an actual descriptive correlation study that was aimed to identify the social support, coping and burden of family caregivers caring for persons with schizophrenia and the correlation of these factors. The details of research design and methodology including research design, population and setting, sample and sampling, instrumentation, ethical consideration, and data analysis are presented as follows.

Research Design

The study employed a correlational study design. This design was used to: a) identify types and level of social support, frequency of coping strategies used, and the level of burden of family caregivers caring for persons with schizophrenia, and b) examine the relationship between social support, coping, and burden of family caregivers caring for persons with schizophrenia.

Setting

The study was conducted in the outpatient department, the West Java Province Mental Hospital of Indonesia. This hospital is one of the biggest government mental hospitals in the West Java Province, the top referral hospital in West Java

Province, and also a teaching hospital. In this hospital, approximately 1,855 patients with schizophrenia were recorded in 2008. In the outpatient department, there were approximately 50-70 patients with different diagnoses coming in each day and about 80% of those patients were diagnosed with schizophrenia (Nursing Department of West Java Province Mental Hospital, 2009). Generally, every month patients come with their family to the hospital to get treatment.

Population and Sample

The target population in this study was family caregivers caring for persons with schizophrenia. The sample in this study was the family caregivers caring for persons with schizophrenia who attended the outpatient department in the West Java Province Mental Hospital, Indonesia.

Sample size

The number of the subjects was determined by using power analysis at the significance level (α) of .05 and the power of test ($1-\beta$) of .80. As this was a correlational study, the effect size was equal with the correlation coefficient (r) from a previous study (Polit & Beck, 2008). The previous study conducted by Chii, Hsing-Yi, Pin and Hsiu (2009) investigated the association between perceived and received social support and caregiver burden. They used the Pearson's product-moment correlation coefficient to analyze the data. The result showed that there was a negative correlation between perceived social support and caregiver burden ($r = -.33, p < .001$). Mengdan, Lambert, and Lambert (2007) also conducted a study to investigate the

relationship between caregiver burden and pattern of coping. The result showed that there was a negative correlation between parental coping and burden ($r = -.26, p \leq .01$). Another study, conducted by Dunkel-Schetter, Folkman, and Lazarus (1987) to examine the correlates of social support and coping showed that there was a correlation between emotion-focused coping and informational support ($r = .32, p < .001$). Based on these research findings, the researcher used the effect size of .30 in this study. This effect size was categorized as a medium effect size (Polit, & Beck, 2008). Therefore, from this effect size, a study sample of 88 subjects was needed.

Sampling technique

The researcher used a purposive sampling technique. The inclusion criteria to recruit the subjects were family caregivers who: a) were age over 18 years old; b) lived with the person being cared for (person with schizophrenia); c) had provided full-time care voluntarily for at least six months; and d) were able to communicate in the Indonesian language.

Instrumentation

In this process, the following steps were used for instrumentation: determination of the instruments, translation of the instruments, test for validity of the instruments; and test for reliability of the instruments.

Instruments

The instruments used for data collection consisted of the Demographic Data Form, the Perceived Social Support Questionnaire (PSSQ), the revised Jalowiec Coping Scale (JCS), and the Zarit Burden Interview (ZBI).

Demographic data form

The demographic data form was developed by the researcher which was used to collect personal information of the subjects. The demographic data form was grouped into three parts including demographic characteristics, health characteristics related to persons with schizophrenia, and caregiving.

Demographic characteristics included age, gender, ethnicity, address, religion, marital status, educational level, occupation, income per month, income satisfaction, and the number of family members living in the household. Health characteristics related to the mentally ill member included the mentally ill member's age, the mentally ill member's gender, frequency of hospitalization, frequency of visiting a doctor, severity of disease perceived by the family caregiver, and the mentally ill member's behavior making the family caregiver worried the most. Caregiving included relationship with the mentally ill member, duration providing care, time spent each day for caring, other ill family members that need to be taken care of, chronic disease suffered by family caregiver, and significant others who helped the family caregiver (Appendix B: Part1).

Perceived Social Support Questionnaire (PSSQ)

The PSSQ was used to measure social support perceived by the family caregivers. The PSSQ was developed by the researcher using House's conceptualization (as cited in Dunkel-Schetter et al., 1987). The PSSQ has four dimensions and 20-items (Appendix B: Part 2). These dimensions and its items were:

1. Emotional support 5 items (1 to 5)
2. Informational support 4 items (6 to 9)
3. Instrumental support 8 items (10 to 17)
4. Appraisal support 3 items (18 to 20)

Emotional support involved esteem, affect, concern, and listening; informational support involved provision advice/suggestion, direction, and information; instrumental support involved aid in kindness, money, labor, time, and environment; and appraisal support involved constructive feedback, affirmation, and social comparison. Most of the items of the PSSQ consisted of perceived social support provided by family relatives, and neighbors because Indonesian people usually got support from them.

The score ranged from 0-3. This score was interpreted as 0 = never, 1 = seldom, 2 = sometimes, and 3 = often, except for negative questions (item no: 2, 6, 9, 13, 17, 19) which were interpreted as 3 = never, 2 = seldom, 1 = sometimes, and 0 = often. The possible score of overall social support ranged from 0 to 60. The greater the score, the higher perceived social support. For interpretation, the researcher used the range of the score (3-0 / 3), then the results were interpreted as follows: low (0-1.00), moderate (1.01-2.00), high (2.01-3.00).

Revised Jalowiec Coping Scale (JCS)

The original Jalowiec Coping Scale (JCS) was developed by Jalowiec in 1977 and was revised in 1987 (Jalowiec, 2003). The revised JCS is the existing tool that has a copyright. The permission to use this tool was obtained from Dr. Anne Jalowiec (Appendix E).

The revised JCS was easy to understand and took about 10-15 minutes to fill in the form. The researcher only asked the subjects about how much he or she had used coping strategies to deal with the stressor. At the end of the revised JCS, the subjects could list other coping strategies used that were not found on the scale. Internal consistency reliability used Cronbach's alpha as .88, content validity was supported by broad literature and empirical base from which the coping items were drawn, and the construct validity for 8 subscales was .85. (Jalowiec, 2003).

The revised JCS has eight coping strategies and 60-items classified into 8 coping strategies (Appendix B: Part3). These coping strategies and its items were:

1. Confrontative 10 items (4, 13, 16, 25, 27, 29, 33, 38, 43, 45)
2. Evasive 13 items (7, 10, 14, 18, 20, 21, 28, 35, 40, 48, 55, 56, 58)
3. Optimistic 9 items (2, 5, 30, 32, 39, 47, 49, 50, 54)
4. Fatalistic 4 items (9, 12, 23, 60)
5. Emotive 5 items (1, 8, 24, 46, 51)
6. Palliative 7 items (3, 6, 26, 34, 36, 44, 53)
7. Supportant 5 items (11, 15, 17, 42, 59)
8. Self reliant 7 items (19, 22, 31, 37, 41, 52, 57)

The researcher used only part A (how much a person has used the coping strategies) of the revised JCS to measure frequency of coping strategies used by the family caregiver because the research question focuses on only frequency of coping strategy used and based on conceptual framework of this study, frequently coping used was determined by appraisal. The degree of using the coping strategies was rated on a Likert rating scale which ranged from 0 to 3 (0 = never used, 1 = seldom used, 2 = sometimes used, and 3 = often used). The possible score ranged from 0 to 180. The greater the score, the more frequent the coping strategy used (A. Jalowiec, personal communication, November 5, 2010). For interpretation, the researcher used the range of the score (3-0 / 3), then the results were interpreted as follows: seldom used (0.01 – 1.00), sometimes used (1.01 – 2.00), and often used (2.01 – 3.00).

Zarit Burden Interview (ZBI)

Burden was measured by the ZBI developed by Zarit and coworkers in 1985. The internal consistency of this tool was measured by Cronbach's alpha as .91 (Knight, Fox, & Chih-Ping, 2000). The permission to use the ZBI was sought from the MAPI Research Trust (Appendix E).

The ZBI consisted 22 items and had five dimensions (Appendix B: Part 4). These dimensions and its item were:

- | | |
|------------------------------------|---------------------------------|
| 1. Burden in the relationship | 6 items (1, 2, 8, 14, 20, 21) |
| 2. Emotional well being | 7 items (3, 4, 5, 7, 9, 19, 22) |
| 3. Social and family life | 4 items (6, 11, 12, 13) |
| 4. Finances had | 1 item (15) |
| 5. Loss of control over one's life | 4 items (10, 16, 17, 18). |

The ZBI score ranged from 0 to 4. The assumption of the score was 0 = never, 1 = rarely, 2 = sometimes, 3 = quite frequently, 4 = near always, except for item no 22, 0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, and 4 = extremely. The possible scores of the ZBI ranged from 0 to 88. The greater the score, the more burdens felt (S. H. Zarit, personal communication, July 29, 2010). For interpretation, the researcher used the range of the score (4-0 / 4), then the results were interpreted as follows: little burden (0-1.00), mild (1.01-2.00), moderate (2.01-3.00), and severe (3.01-4.00).

Translation of the instruments

In this study, the researcher used three instruments: the ZBI, the JCS, and the PSSQ which are used in the English language. In order to ensure the equivalence of these instruments in the Indonesian language, the researcher used the back translation technique by three independent translators from Indonesia who are expert in English and Indonesian language (Hilton & Skrutskowski, 2002). The processes of back translation were as follows:

1. The first translator independently translated the original version of the instruments in Indonesian Language.
2. The second translator independently translated the Indonesian version back to the original version.
3. Both translations were consulted to the third translator to identify those discrepancies of the original and back translation versions.

The result of the translation was that there should be no discrepancy in meaning for the revised JCS and the PSSQ. However, for the ZBI, there was one item

no. 13 that had discrepancy meaning. In this item, the word “having friends over” has meaning “*teman yang berkunjung ke rumah*” not “*memiliki teman*”. After discussion with the translators, the researcher used “*teman yang berkunjung ke rumah*” and revised it based on their suggestion.

Validity of the instruments

The researcher did validity testing for the social support instrument as this instrument was developed by the researcher. This instrument was examined by five experts. Four experts were psychiatric nurses and community nurses from the Faculty of Nursing, Padjadjaran University, Indonesia. One expert was an expert in tool development from the Faculty of Nursing, Prince of Songkla University, Thailand.

The twenty-item social support instrument was examined for its content validity. The experts suggested to add “my family or relatives prayed for me to get blessing from God due to doing noble duties in caring for the mentally ill member” because it was common in Indonesian people to achieve comfort and spirituality strength, and to delete “someone expressed love for me” because this is uncommon in Indonesian culture, change the words “someone” in several of the sentences, make the negative statement (six items) to avoid the respondent feeling bored, revise “someone take care of my ill member when I should go away for a while” to be “my family took care of the mentally ill member when I needed a break”, and delete “someone gives me free time for relax” because it was quite same with “my family took care of the mentally ill member when I needed a break”. At the end,

the researcher revised this instrument based on the experts' suggestions. Then, the total number of items for this instrument was 20-items.

Reliability of the instruments

The reliability of the translated instruments was analyzed for internal consistency using the coefficient alpha (Cronbach's alpha). The researcher used 30 subjects who met the criteria of the study. The results showed that Cronbach's alpha of the ZBI was .91, the JCS was .79, and the PSSQ .74. However, the reliability of some dimensions of PSSQ was quite low as follows: emotional support of .48, informational support .11, instrumental support of .73, and appraisal support of .51.

Data Collection

The data collection was done by the researcher. The process of data collection was performed as follows:

1. The researcher started data collection after the proposal was approved by the Thesis Committee of the Faculty of Nursing, Prince of Songkla University and the Director of Mental Hospital of West Java Province.
2. Then the researcher asked for permission and explained the study to the head of nurse of the outpatient department to conduct study.
3. The researcher selected the subjects that were appropriate to the selection criteria. Then the researcher gave a brief description of the study and obtained verbal consent from the subjects to take part.

4. The researcher introduced herself, gave an explanation concerning the study, and also informed the subjects that they were free to withdraw anytime without any penalty or outcome. For agreement, the subjects were asked verbally and/or in writing.

5. The researcher explained the sequence of the questionnaire to ensure understanding and provided about 45 minutes to one hour for the subjects to fill in the form. At the same time, the researcher allowed the subjects to clarify questions that could not be understood. In this study, most of the subjects were helped by the researcher in reading the questionnaires due to the incapability of reading, many items of questionnaires, and bad lighting.

6. The researcher checked the completeness of the questionnaires and asked the subject who did not fill in the form completely to complete it.

7. Finally, the researcher coded and scored the questionnaires.

Ethical Consideration

Data were collected after obtaining approval from the Institutional Review Board (IRB) Faculty of Nursing, Prince of Songkla University Thailand and the Director of the West Java Province Mental Hospital Indonesia. The researcher also asked for permission and explained the study to the head of the outpatient department. For the subjects, the researcher explained the purpose and the benefit of the study. The subjects were informed about their right to withdraw at anytime for any reason without negative consequences. The agreement to participate in this study was marked verbally, by signing a form, or returning the questionnaires. The researcher kept all information and subjects' confidentiality by coding.

Data Analysis

The researcher analyzed the data using the computer software with descriptive and inferential statistics. Descriptive statistics including frequency, percentage, minimum and maximum, mean, and standard deviation were used to analyze the demographic data, coping strategies, social support and burden of family caregivers.

In this study, the researcher did not use a total score for coping as the researcher used Lazarus and Folkman transactional model stress and coping. They defined coping as the effort to manage stressful situations. Coping strategies to manage stressful situations consisted of several strategies. These strategies could not be measured in the total score for all strategies of coping because each dimension of coping had a different direction.

The following process, the researcher determined appropriate correlation statistics with checking of scale measurement and checking of assumption for normality and linearity. The researcher checked for linearity with a scatter plot and checked for normality with a skewness score (skewness / SE of skewness), if the result $< \pm 2.58$, $p = 0.01$, the data were normal distribution (Munro, 2001). The results supported the assumption of normality and linearity, except for the dimensions of burden: social and family life dimension and financial dimension were not normal distributions (Appendix C: Table C7). Therefore, the relationship among social support, coping, and burden were analyzed by Pearson's product-moment correlation coefficient. However, correlation among each dimension of burden: social and family life dimension and financial dimension used Spearman's rho (Polit & Beck, 2008).

CHAPTER 4

RESULTS AND DISCUSSION

This chapter presents results and discussion of the study. The main parts of this chapter include demographic characteristics, social support, coping, burden and the relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia.

Results

The researcher collected data from 88 subjects who attended the outpatient department, West Java Province Mental Hospital. The findings of the study are presented by tables and narratives.

The following topics in the results section are: 1) demographic characteristics; 2) social support of family caregivers caring for persons with schizophrenia; 3) coping of family caregivers caring for persons with schizophrenia; 4) burden of family caregivers caring for persons with schizophrenia; and 5) relationships among social support, coping, and burden of family caregiver caring for persons with schizophrenia.

Demographic characteristics

Table 1 shows the subjects' demographic characteristics. The subjects' age was an average of 52 years old ($M= 51.8$, $SD = 12.37$). The majority of the subjects were middle adulthood (72.7%). More than half of the subjects (68.2%) were female. Most of the subjects were married (83%), Sundanese (92%), and Muslim (98.9%). More than sixty percent of the subjects (61.4%) had an education at elementary school level and only 42% worked as a housewife. A half of the subjects (50%) had an income less than 500,000 rupiahs per month with an average of four people ($M = 4.38$, $SD = 2.50$) living in their household. Nearly seventy percent of the subjects (69.3%) felt their income was inadequate.

Table 1

Frequency and Percentage of the Subjects Classified by Demographic Characteristics (N=88)

| Demographic Characteristics | N | % |
|---|----|------|
| Age ($M=51.8$, $SD=12.37$, $Min=22$, $Max=78$) | | |
| 19-24 | 1 | 1.1 |
| 25-34 | 8 | 9.1 |
| 35-60 | 64 | 72.7 |
| 61-75 | 13 | 14.8 |
| 76-78 | 2 | 2.3 |
| Gender | | |
| Female | 60 | 68.2 |
| Male | 28 | 31.8 |
| Religion | | |
| Islam | 87 | 98.9 |
| Christian | 1 | 1.1 |

Table 1 (continued)

| Demographic Characteristics | N | % |
|--|----|------|
| Ethnic | | |
| Sundanese | 81 | 92.0 |
| Javanese | 4 | 4.5 |
| Others(Chinese, Palembangnese, Betawinese) | 3 | 3.4 |
| Marital status | | |
| Married | 73 | 83.0 |
| Widow/widower | 11 | 12.5 |
| Single | 4 | 4.5 |
| Educational level | | |
| No formal education | 2 | 2.3 |
| Elementary school | 54 | 61.4 |
| Junior high school | 16 | 18.2 |
| Senior high school | 10 | 11.4 |
| Graduate | 6 | 6.8 |
| Occupation | | |
| Housewife | 37 | 42.0 |
| Farmer | 12 | 13.6 |
| Unemployed | 11 | 12.5 |
| Trader | 10 | 11.4 |
| Retired | 7 | 8.0 |
| Laborer | 5 | 5.7 |
| Government employee | 3 | 3.4 |
| Private employee | 3 | 3.4 |
| Income per month (Indonesian Rupiahs) | | |
| None | 8 | 9.1 |
| < 500,000 | 44 | 50.0 |
| 500,000 - 1000,000 | 24 | 27.3 |
| 1,000,000 - 2,000,000 | 5 | 5.7 |
| > 2,000,000 | 7 | 8.0 |

Table 1 (continued)

| Demographic Characteristics | N | % |
|---|----|------|
| Income satisfaction | | |
| Inadequate | 61 | 69.3 |
| Adequate | 22 | 25.0 |
| More than adequate | 5 | 5.7 |
| Number of family members living in a household (M = 4.38, SD = 2.50, Min = 2, Max = 20) | | |
| 2 - 4 | 60 | 68.2 |
| 5 - 8 | 24 | 27.3 |
| > 8 | 4 | 4.5 |

Table 2 presents the data of health characteristics related to the mentally ill member. Data showed that the mentally ill members' age was approximately 30 years old (M=30.44, SD = 9.03). Nearly half (46.6%) of the subjects were middle aged (25-34 years old), and the majority of them (70.5%) were male. The average number of hospitalization was 2 times during illness (M = 1.98, SD = 1.87). All of them (100%) visited a doctor every month. The mentally ill member's behavior making the subjects worried the most was violent behavior (61.4%). Severity of the disease was perceived at a moderate level by nearly half of the subjects (45.5%).

Table 2

Frequency and Percentage of the Subjects Classified by Health Characteristics Related to the Mentally Ill Member (N=88)

| Health Characteristics Related to the Mentally Ill Member | N | % |
|--|----|------|
| Age (M=30.44, SD=9.03, Min=13, Max=55) | | |
| 13 - 18 | 5 | 5.7 |
| 19 - 24 | 17 | 19.3 |
| 25 - 34 | 41 | 46.6 |
| 35 - 55 | 25 | 28.4 |
| Gender | | |
| Male | 62 | 70.5 |
| Female | 26 | 29.5 |
| Frequency of hospitalization (M = 1.98, SD = 1.87, Min = 0, Max = 10) | | |
| Never | 12 | 13.6 |
| 1 - 2 | 57 | 64.8 |
| 3 - 5 | 14 | 15.9 |
| 6 - 10 | 5 | 5.7 |
| Frequency of visiting a doctor | | |
| Every month | 88 | 100 |
| Severity of the disease perceived by the family caregivers | | |
| Mild | 12 | 13.6 |
| Moderate | 40 | 45.5 |
| Severe | 36 | 40.9 |
| The mentally ill member's behavior making the family caregivers worried the most | | |
| Violent | 54 | 61.4 |
| Hallucination | 11 | 12.5 |
| Anger | 6 | 6.8 |
| Withdrawal | 4 | 4.5 |
| Loafing around | 4 | 4.5 |
| No behavior making worried the most | 9 | 10.2 |

Table 3 presents the data related to caregiving. The findings show that more than half (51.1%) of the subjects were mothers. They had provided care for about seven years ($M = 6.90$, $SD = 5.54$) and more than ninety percent of the subjects (90.9%) spent day and night for providing care each day. Most of the subjects (89.8%) did not have other ill family members that need to be taken care of. The majority of the subjects (76.1%) did not suffer from chronic diseases. More than half of the subjects (61.4%) had significant others who help them in caring for the mentally ill member including relatives (21.6%), a husband or wife (21.6%), and children (18.2%).

Table 3

Frequency and Percentage of the Subjects Classified by Caregiving (N=88)

| Caregiving | N | % |
|--|----|------|
| Relationship with the mentally ill member | | |
| Mother | 45 | 51.1 |
| Father | 17 | 19.3 |
| Relatives | 17 | 19.3 |
| Wife | 7 | 8.0 |
| Husband | 1 | 1.1 |
| Daughter | 1 | 1.1 |
| Duration of providing care (years) ($M = 6.90$, $SD = 5.54$, $Min = 1$, $Max = 30$) | | |
| 1 - 5 | 47 | 53.4 |
| 6 - 10 | 27 | 30.7 |
| 11 - 15 | 8 | 9.1 |
| > 15 | 6 | 6.8 |

Table 3 (continued)

| Caregiving | N | % |
|---|----|------|
| Time spent each day | | |
| Day time | 8 | 9.1 |
| Day and night time | 80 | 90.9 |
| Other ill family members that need to be taken care of | | |
| No | 79 | 89.8 |
| Yes | 9 | 10.2 |
| Chronic disease suffered by family caregivers | | |
| Yes | 21 | 23.9 |
| No | 67 | 76.1 |
| Significant others who help family caregivers | | |
| Yes | 54 | 61.4 |
| Relatives | 19 | 1.6 |
| Husband or wife | 19 | 1.6 |
| Children | 16 | 8.2 |
| No | 34 | 38.6 |

Social support of family caregivers caring for persons with schizophrenia

The mean score of the overall social support was interpreted at a moderate level ($M = 1.67$, $SD = .50$). All social support dimensions were interpreted at a moderate level including emotional support ($M = 1.95$, $SD = .75$), appraisal support ($M = 1.95$, $SD = .66$), informational support ($M = 1.59$, $SD = .48$), and instrumental support ($M = 1.42$, $SD = .65$) (Table 4).

Table 4

Mean, Standard Deviation, and Level Classified by Overall Social Support and Dimensions of Social Support (N=88)

| Social Support | Mean | SD | Level |
|----------------|------|-----|----------|
| Overall | 1.67 | .50 | Moderate |
| Dimensions | | | |
| Emotional | 1.95 | .75 | Moderate |
| Appraisal | 1.95 | .66 | Moderate |
| Informational | 1.59 | .48 | Moderate |
| Instrumental | 1.42 | .65 | Moderate |

Table 5 presents the frequency and percentage of the subjects according to the level of overall social support. More than fifty percent of the subjects (64.8%) perceived social support at a moderate level and more than twenty percent of the subjects (23.9%) perceived social support at a high level. More than ten percent of the subjects (11.4%) perceived social support at a low level.

Table 5

Frequency and Percentage of the Subjects Classified by Level of Overall Social Support (N=88)

| Level of Social Support | N | % |
|-------------------------|----|------|
| Low (0-1.00) | 10 | 11.4 |
| Moderate (1.01 – 2.00) | 57 | 64.8 |
| High (2.01-3.00) | 21 | 23.9 |

Table 6 shows the top five social supports that were ‘sometimes’ and ‘often’ perceived by the subjects. The ranking of the social support items that were ‘sometimes’ and ‘often’ perceived by the subjects from the highest to the lowest were: “my family or relatives ‘sometimes’ and ‘often’ prayed for me to get blessing from God due to doing noble duties in caring for the mentally ill member” (88.6%), “my relatives or my neighbors ‘sometimes’ and ‘often’ told me that I was tested by God with having the mentally ill member” (80.7%), “my family or relatives ‘sometimes’ and ‘often’ concerned with my problems in regard to caring for the mentally ill member” (75%), “my relatives or friends ‘sometimes’ and ‘often’ gave me suggestions to deal with problems while caring for the mentally ill member” (70.5%), “I ‘sometimes’ and ‘often’ had difficulties to get a loan to fulfill needs of the mentally ill member” (68.2%).

Table 6

Percentage of the Subjects with the Top Five of Social Support Items that 'Sometimes' and 'Often' Perceived by the Subjects (N=88)

| Social Support Items | Sometimes | Often | Total % |
|---|-----------|-------|---------|
| | % | % | |
| 1. My family or relatives prayed for me to get blessing from God due to doing noble duties in caring for the mentally ill member (Em) | 26.1 | 62.5 | 88.6 |
| 2. My relatives or my neighbors told me that I was tested by God with having the mentally ill member (Ap) | 47.7 | 32.0 | 80.7 |
| 3. My family or relatives concerned with my problems in regard to caring for the mentally ill member (Em) | 44.3 | 30.7 | 75.0 |
| 4. My relatives or friends gave me suggestions to deal with problems while caring for the mentally ill member (Inf) | 45.5 | 25.0 | 70.5 |
| 5. I had difficulties to get a loan to fulfill needs of the mentally ill member (Ins)* | 32.0 | 35.2 | 68.2 |

Note. Em = emotional support, Ap = appraisal support, Inf = informational support, Ins = instrumental support, * negative statements.

Table 7 shows the percentage of subjects with the top five social support items that were 'never' and 'seldom' perceived by the subjects. The ranking of the social support items that were 'never' and 'seldom' perceived by the subjects from the highest to the lowest were: "my family 'never' and 'seldom' created conflict with me in regard to caring for the mentally ill member (78.5%), "my family or my relatives 'never' and 'seldom' blamed me by telling me that I did not care well for the

mentally ill member” (76.9%), “in emergency situation, my relatives ‘never’ and ‘seldom’ provided transportation to take the mentally ill member to a hospital” (71.6%), “my neighbors ‘never’ and ‘seldom’ isolated me because I had the mentally ill member ” (67%), “my family or my relatives ‘never’ and ‘seldom’ accompanied the mentally ill member for medical check-ups when I was sick or busy” (60.4%).

Table 7

Percentage of the Subjects with the Top Five of Social Support Items that ‘Never’ and ‘Seldom’ Perceived by the Subjects (N=88)

| Social Support Items | Never | Seldom | Total % |
|---|-------|--------|---------|
| | % | % | |
| 1. My family created conflict with me in regard to caring for the mentally ill member (Ins)* | 58.0 | 20.5 | 78.5 |
| 2. My family or my relatives blamed me by telling me that I did not care well for the mentally ill member (Ap)* | 61.4 | 15.9 | 76.9 |
| 3. In emergency situation, my relatives provided transportation to take the mentally ill member to a hospital (Ins) | 58.0 | 13.6 | 71.6 |
| 4. My neighbors isolated me because I had the mentally ill member (Em)* | 45.5 | 20.5 | 67.0 |
| 5. My family or my relatives accompanied the mentally ill member for medical check-ups when I was sick or busy (Inst) | 45.6 | 14.8 | 60.4 |

Note. Em = emotional support, Ap = appraisal support, Inf = informational support, Ins = instrumental support, * negative statements.

Coping of family caregivers caring for persons with schizophrenia

Table 8 presents the mean, standard deviations, and frequency of using coping strategies. Optimistic coping was the most often coping strategy used by the subjects ($M = 2.3$, $SD = .34$), followed by self-reliant coping ($M = 1.95$; $SD = .36$), confrontative coping ($M = 1.74$; $SD = .50$), and supportant coping ($M = 1.74$; $SD = .45$). Emotive coping was the least coping strategy used by the subjects ($M = 1.14$; $SD = .50$), followed by palliative coping ($M = 1.53$; $SD = .33$), and evasive coping ($M = 1.58$; $SD = .41$), and fatalistic coping ($M = 1.62$; $SD = .56$). Based on categorization of coping used, optimistic coping was interpreted as “often used” and the other coping were interpreted as “sometimes used”.

Table 8

Mean, Standard Deviations, and Frequency of Using Coping Strategies (N=88)

| Coping Strategies | Mean | SD | Frequency of Using |
|-------------------|------|-----|--------------------|
| 1. Optimistic | 2.03 | .34 | Often |
| 2. Self-Reliant | 1.95 | .36 | Sometimes |
| 3. Confrontative | 1.74 | .59 | Sometimes |
| 4. Supportant | 1.74 | .45 | Sometimes |
| 5. Fatalistic | 1.62 | .56 | Sometimes |
| 6. Evasive | 1.58 | .41 | Sometimes |
| 7. Palliative | 1.53 | .33 | Sometimes |
| 8. Emotive | 1.14 | .50 | Sometimes |

Table 9 shows the top ten coping items that 'sometimes' and 'often used' by the subjects. Five of the highest percentages were at "prayed or put your trust in God" (100%), "told to yourself that you could handle anything no matter how hard" (97.7%), "tried to keep your life as normal as possible and not let the problem interfere" (96.6%), "tried to see the good side of the situation" (95.5%), "wished that the problem will go away" (95.5%).

Table 9

Percentage of the Subjects with the Top Ten Coping Items that 'Sometimes' and 'Often Used' by the Subjects (N=88)

| Coping Items | Sometimes | Often | Total % |
|---|-----------|-------|---------|
| | % | % | |
| 1. Prayed or put your trust in God (Su) | 5.7 | 94.3 | 100 |
| 2. Told to yourself that you could handle anything no matter how hard (Se) | 51.1 | 46.6 | 97.7 |
| 3. Tried to keep your life as normal as possible and not let the problem interfere (Op) | 26.1 | 70.5 | 96.6 |
| 4. Tried to see the good side of the situation (Op) | 58.0 | 38.6 | 96.6 |
| 5. Wished that the problem will go away (Ev) | 18.2 | 77.3 | 95.5 |
| 6. Tried to keep your feelings under control (Se) | 44.3 | 48.9 | 93.2 |
| 7. Hoped that things would get better(Op) | 38.6 | 54.5 | 93.1 |
| 8. Tried to think positively (Op) | 56.8 | 34.1 | 90.9 |
| 9. Used relaxation techniques: meditate (dzikir) (Pa) | 36.4 | 54.4 | 90.9 |
| 10. Accepted the situation because very little could be done (Fa) | 17.0 | 72.7 | 89.7 |

Note. Op = optimistic, Fa = fatalistic, Su = supportant, Pa = palliative, Se = self-reliant, Ev = evasive.

Burden of family caregivers caring for persons with schizophrenia

Table 10 shows the mean score, standard deviation, and the level of burden. The mean score of the overall burden was interpreted at a moderate level ($M = 2.43$, $SD = .81$). The mean score of burden dimension interpreted at a severe level was financial ($M = 3.03$, $SD = 1.16$). The mean score of the burden dimensions interpreted at a moderate level were burden in relationship ($M = 2.89$, $SD = .77$), emotional well being ($M = 2.58$, $SD = .91$), and loss of control over one's life ($M = 2.01$, $SD = .84$). The mean score of the burden dimension that was interpreted at a mild level was social and family life ($M = 1.58$, $SD = .91$).

Table 10

Mean, Standard Deviation, and Level Classified by Overall of Burden and Dimensions of Burden (N=88)

| Burden | Mean | SD | Level |
|---------------------------------|------|------|----------|
| Overall | 2.43 | .81 | Moderate |
| Dimension | | | |
| Financial | 3.03 | 1.16 | Severe |
| Burden in the relationship | 2.89 | .77 | Moderate |
| Emotional well being | 2.58 | .91 | Moderate |
| Loss of control over one's life | 2.01 | .84 | Moderate |
| Social and family life | 1.58 | .91 | Mild |

Table 11 shows the frequency and percentage of the subjects classified by the level of overall burden. From 88 subjects, 43.2% of the subjects perceived their burden at a moderate level, 36.4% of the subjects perceived their burden at a mild

level, 13.6% of the subjects perceived their burden at little level, and only 6.8% of the subjects perceived burden at severe level.

Table 11

Frequency and Percentage of the Subjects Classified by Level of Overall Burden (N=88)

| Level of Burden | Frequency | Percentage |
|------------------------|-----------|------------|
| Little (0-1.00) | 12 | 13.6 |
| Mild (1.01 – 2.00) | 32 | 36.4 |
| Moderate (2.01 – 3.00) | 38 | 43.2 |
| Severe (3.01 – 4.00) | 6 | 6.8 |

Table 12 presents the top five burden items that ‘quite frequently’ and ‘nearly always’ are felt by the subjects. The ranking of burden items from the highest to the lowest were “you feel that your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on?” (75%), you feel your relative is dependent on you” (73.8%), “you are afraid what the future holds for your relative” (72.8%), “overall, you feel the burden of caring for your relative” (62.5%), and “you feel that you don’t have enough money to take care of your relative in addition to the rest of your expenses” (60.2%).

Table 12

Percentage of the Subjects with the Top Five of the Burden Items that 'Quite Frequently' and 'Nearly Always' Perceived by the Subjects (N=88)

| Burden Items | Quite | Nearly | Total % |
|--|------------|--------|---------|
| | Frequently | Always | |
| | % | % | |
| 1. You feel that your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on (Re) | 5.7 | 69.3 | 75.0 |
| 2. You feel your relative is dependent on you (Re) | 13.6 | 60.2 | 73.8 |
| 3. You are afraid what the future hold for your relative (Em) | 8.0 | 64.8 | 72.8 |
| 4. Overall, you feel burden in caring for your relative (Em) | 19.3 | 43.2 | 62.5 |
| 5. You feel that you don't have enough money to take care of your relative in addition to the rest of your expenses (Fi) | 4.5 | 55.7 | 60.2 |

Note. Re = burden in relationships, Em = emotional well being, Fi = financial.

Table 13 presents the top five of the burden items that 'never' and 'rarely' felt by the subjects. The ranking of the burden items from the highest to the lowest were "you 'never' and 'rarely' feel that your relative currently affects your relationships with other family members or friends in a negative ways" (84.1%), "you 'never' and 'rarely' feel uncomfortable about having friends over because of your relative" (65.9%), "you 'never' and 'rarely' wish that you could leave the care of your relative to someone else" (62.5%), "you 'never' and 'rarely' feel embarrassed over

your relative's behavior" (54.6%), "you 'never' and 'rarely' feel your health has suffered because of your involvement with your relative" (48.9%).

Table 13

Percentage of the Subjects with the Top Five of the Burden Items that 'Never' and 'Rare' Perceived by the Subjects (N=88)

| Burden Items | Never | Rarely | Total % |
|--|-------|--------|---------|
| | % | % | |
| 1. You feel that your relative currently affects your relationships with other family members or friends in a negative ways (So) | 68.2 | 15.9 | 84.1 |
| 2. You feel uncomfortable about having friends over because of your relative (So) | 47.7 | 18.2 | 65.9 |
| 3. You wish that you could leave the care of your relative to someone else (Lo) | 47.7 | 14.8 | 62.5 |
| 4. You feel embarrassed over your relative's behavior (Em) | 45.5 | 9.1 | 54.6 |
| 5. You feel your health has suffered because of your involvement with your relative (Lo) | 34.4 | 14.8 | 48.9 |

Note. Lo = loss of control over one's life, Em = emotional well being, So = social and family life.

Relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia

The relationship between social support, coping, and burden was examined using Pearson's product-moment correlation coefficient because these variables met assumption for this statistic. Table 14 presents the bivariate correlation analysis using Pearson's product-moment correlation coefficient (r).

In terms of the correlation between social support and coping, the results showed that there were significant positive correlations between social support and confrontative coping ($r = .68, p < .01$), optimistic coping ($r = .42, p < .01$), and supportant coping ($r = .46, p < .01$). However, social support was significantly and negatively correlated with evasive coping ($r = -.52, p < .01$) and fatalistic coping ($r = -.41, p < .05$). In contrast, findings showed that there were no significant correlations between social support and emotive ($r = -.12; p > .05$), palliative ($r = .03, p > .05$), and self-reliant coping ($r = -.10, p > .05$).

In terms of correlation between coping and burden, a positive correlation was found between evasive coping, fatalistic coping, emotive coping and burden ($r = .50, r = .57, r = .38; p < .01$). However, confrontative, optimistic, supportant coping was significantly and negatively correlated with burden ($r = -.40, r = -.31, r = -.36; p < .01$). Result also found that there were no significant correlation between burden and palliative ($r = .14, p > .05$), and self-reliant coping ($r = .18, p > .05$).

In terms of correlation between social support and burden, there was a significant negative correlation between social support and burden. The findings showed that social support significantly and negatively correlated with burden ($r = -.50, p < .01$).

Table 14

Correlation among Social Support, Coping, and Burden Using Pearson's Product-Moment Correlation Coefficient (r) (N=88)

| Variables | Correlation (r) | |
|----------------|-----------------|--------|
| | Social Support | Burden |
| Coping | | |
| Confrontative | .68** | -.40** |
| Evasive | -.52** | .50** |
| Optimistic | .42** | -.31** |
| Fatalistic | -.41* | .57** |
| Emotive | -.12 | .38** |
| Palliative | .03 | .14 |
| Supportant | .46** | -.36** |
| Self-reliant | -.10 | .18 |
| Social Support | 1.00 | -.50** |

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

Additional data analysis of factors contributing to social support, coping, and burden of family caregivers caring for persons with schizophrenia

The researcher conducted the additional data analysis in order to have a better understanding on the variables of the study and to determine whether the following factors may contribute to social support, coping and burden: marital status, relationship with the mentally ill member, severity of the disease perceived by the subjects, educational level, the mentally ill member's behavior making the family caregivers worried the most. The findings can be seen in the appendix (Appendix C: Table C11 to C17).

Discussion

The discussion focuses on six main topics. These were 1) social support of family caregivers caring for persons with schizophrenia; 2) coping of family caregivers caring for persons with schizophrenia; 3) burden of family caregivers caring for persons with schizophrenia; 4) relationship between social support and coping of family caregivers caring for persons with schizophrenia, 5) relationship between coping and burden of family caregivers caring for persons with schizophrenia, and 6) relationship between social support and burden of family caregivers caring for persons with schizophrenia.

Social support of family caregivers caring for persons with schizophrenia

The findings of the study showed that the overall social support perceived by family caregivers caring for persons with schizophrenia was at a moderate level (Table 4). This is inconsistent with the findings of a previous study conducted by Kristofferzon, Lofmark, and Carlson (2005) in Sweden. They found that the 74 women and 97 men with myocardial infarction who participated in their study perceived social support, including emotional and instrumental support, to be at a low level.

In the present study, the subjects perceived social support to be at a moderate level, which may be due to, firstly, most support came from the family. In the present study, 61.4% of the subjects had close relative (relatives, spouse, and children) who helped them in caring for the mentally ill member (Table 3). Additional

findings also showed that there were significant differences in perceived social support between married and single subjects ($t = -2.31, p < .05$); married subjects perceived social support higher than single subjects (Appendix C: Table C11).

Support from family probably contributed to the subjects' positive perception of social support. Cohen and Syme (1985) stated that family support is stable over a long time period. Moreover, support from family is usually given voluntarily rather than grudgingly, something which is also perceived positively. These findings are supported by those from a study conducted by Pi-Ming, Wierenga, and Su-Chuan (2009) on 91 primary caregivers of hospitalized cancer patients in Taiwan. They found that family support had a positive effect on the caregivers. A lack of family support resulted in a significant, negative impact on the caregivers' health.

Secondly, there was a good relationship between the subjects and their supporters. In the present study, the subjects seemed to have good relationships with their families. The data showed that 78.5% the subjects' families 'never' and 'seldom' created conflict in regard to caring for the mentally ill member (Table 7). This might be because the Sundanese people believe in "*silih asah, silih asih, silih asuh*" as a value. This phrase means that people should love, guide, and care for each other. These values can result in an intimate, harmonious, and peaceful environment (Suryani, n.d.). In addition, 68.2% of the subjects were women (Table 1). Women tend to develop interpersonal relationships which are intimate, empathic, and expressive (Kaptein & Weinman, 2004). Antonucci, as cited in Hupcey (1998), stated that support was perceived as positive if there were no conflicts between the recipient and the supporter. This finding is in line with the results of a study conducted by Ying

(in press). Ying found that marital conflict and parent-in-law conflict resulted in low social support, which in turn resulted in predicted antenatal depressive symptoms.

However, the caregivers had some needs which were not fulfilled.

These may have been a counterbalancing factor affecting the level of overall social support found in this present study. It was found that more than sixty percent of the subjects (68.2%) 'sometimes' and 'often' had difficulties to get a loan to fulfill needs of the mentally ill member, 71.6% of the subjects perceived that their relatives 'never' and 'seldom' provided transportation to take the mentally ill member to a hospital in an emergency situation, and 60.4% of the subjects perceived that their relatives 'never' and 'seldom' accompanied the mentally ill member for medical check-ups when family caregiver was sick or busy (Table 6 and 7). The timing in providing support, such as during emergency situations, affected the quality of perceived social support because different types of support were needed in the different situations (Hupcey, 1998). When persons with schizophrenia relapse, their family caregivers may need more money or transportation assistance, and they may need someone else to accompany the patient to the hospital when they are sick. Support will be perceived negatively if it does not fulfill the needs of the recipient (Cutrona and Russell as cited in Hupcey, 1998). This is in line with a study conducted by Fridriksdottir et al. (2010) on 223 people who had a family member with cancer. The results showed that about 40% of the subjects considered 12 out of their 20 needs to be unmet. This resulted in the subjects experiencing anxiety.

Social support dimensions include emotional support, appraisal support, informational support, and instrumental support; all were perceived at a moderate level by the family caregivers caring for persons with schizophrenia (Table

4). This was inconsistent with the findings of a previous study by Chii, Hsing-Yi, Pin, and Hsiu (2009), which was conducted on 301 Taiwanese family caregivers who were caring for an incapable family member at home. The researchers found that informational support was the most frequently used type of support, followed by instrumental support; emotional support was used the least.

The moderate level for all the dimensions of social support (emotional support, appraisal support, informational support, and instrumental support) found in the present study might be due to the Sundanese positive beliefs in social life. Sundanese family caregivers usually have close relationships with their family members. In a sociocultural context, Sundanese families live as an extended family; many relatives live along with a nuclear family in one household (Widjaya as cited in Zevalkink, Riksen-Walraven, & Lieshout, 1999). The data showed that the subjects had about four family members living in a household (Table 1) and 61.4% of the subjects had close relative (relatives, spouse, and children) who helped them in caring for the mentally ill member (Table 3). In terms of social relationships, Sundanese people believe that every relationship should be based on "*silih asih, silih asah, silih asuh*," which means that people should care for, love, and guide each other (Suryani, n.d.). In the present study showed that 88.6% of the subjects had family who 'sometimes' and 'often' prayed for the subjects to get blessing from God due to doing noble duties in caring for the mentally ill member, the subjects' family or relatives 'sometimes' and 'often' concerned with the subjects' problems in regard to caring for the person with schizophrenia (75%), the subjects' relatives or friends 'sometimes' and 'often' gave suggestions to deal with problems while caring for the mentally ill member (70%) (Table 6). The results also showed that 78.5% of the subjects had

family who 'never' and 'seldom' created conflict with the subjects in regard to caring for the mentally ill member, the subjects' family or relatives 'never' and 'seldom' blamed the subjects by telling that the subjects did not care well for the mentally ill member (76.9%), the subjects' neighbors 'never' and 'seldom' isolated the subjects because they had the mentally ill member (67%) (Table 7). This is consistent with the results of a study conducted by Vanaleesin, Suttharangsee, and Hatthakit (2007) on Muslim people in a southern province of Thailand who were caring for persons with schizophrenia. The researchers found that the definitions of caring, based on 13 key informants and 19 general informants, were the following: love and concern, an obligation of family members, a caregiving role provided by Allah, and a test of patience set by Allah.

Although some factors benefited the patients' perceptions of social support, a lack of financial support from their relatives and a lack of disease-related information from healthcare providers were probably two counterbalancing factors. Hence, the perceived level of social support was only found to be at a moderate level. Other factors may have contributed as well. Firstly, 50% of the subjects had income less than 500,000 rupiahs per month and 69.3% of the subjects felt inadequate with their income (Table 1). Sundanese households with stable incomes are rare (Suhamiharja as cited in Zevalkink et al., 1999). Cohen and Shyme (1985) stated that a person who experiences a stressful event may not be able to provide support for others. Therefore, low occupational status and low income were two influences on the level of family support, particularly financial support. The data in the present study showed that 68.2% of the subjects 'sometimes' and 'often' had difficulties to get a loan to fulfill needs of the mentally ill member, their relatives 'never' and 'seldom'

provided transportation to deliver the mentally ill member to the hospital in an emergency situation (71.6%), their relatives 'never' and 'seldom' accompanied the mentally ill member for medical check-up when the subjects were sick or busy (60.4%) (Tables 6 and 7). These findings are similar to findings in a study conducted by Grandon, Jenaro, and Lemos (2008). They did a study on 106 caregivers caring for persons with schizophrenia in a medium-income area in South America. The results showed that the caregivers received little support.

Next, lack of disease-related information provided by healthcare providers, such as nurses and physicians, was another counterbalancing factor resulting in the moderate level of social support found in this study. The lack of information related to the disease was probably due to the fact that all the subjects visited a doctor only once a month (Table 2). In addition, in Indonesia, mental health services, psychiatrists, and nurses are still limited. There are 33 state mental hospitals with 8150 beds in over 24 provinces. They serve 202 million people, the ratio of psychiatrists to mentally ill persons is 1:1400, and the ratio of psychiatric nurses to mentally ill persons is 1:114. Certainly, mental health care for the Indonesian people is inadequate (Indonesian Department of Health and Social Welfare, 2001). This limits the amount of information that can be provided by healthcare providers, particularly nurses. This finding is consistent with the results of a study conducted by Shioh-Jing, Cooke, Moyle, and Debra (2010) on the caregivers of schizophrenic adolescents in Taiwan. The findings showed that the family caregivers reported unmet information needs.

In conclusion, social support in this present study was perceived to be at a moderate level. Contributing factors of this finding might have included family

support and strong relationships, but unmet needs of family caregivers were considered as a counterbalance factors. The social dimensions of appraisal, emotional support, informational support, and instrumental support were also perceived to be at moderate levels. Contributing factor of these findings was positive beliefs in social life, however, lack of financial support from family and lack of disease-related information from healthcare providers were considered as counterbalancing factor.

Coping of family caregivers caring for persons with schizophrenia

Based on the findings of this study, the coping strategy that was most often used by the family caregivers was optimistic coping (maintaining positive thinking or positive attitudes about a problem) ($M = 2.03$, $SD = .34$) (Table 8). This is inconsistent with the results of a study conducted by Lindqvist, Carlsson, and Sjoden (2000) on 1200 Swedish subjects (600 men and 600 women). That study found that the most frequently used coping method was confrontative coping. Another study was done by Paster, Brandwein, and Walsh (2009) in New Jersey to compare the coping strategies used by 50 parents of children with disabilities and 62 parents of children without disabilities. Their study noted that “seeking social support” and “escaping avoidance” were significantly higher for the parents of children with disabilities than for the parents of children without disabilities.

The possible reasons that optimistic coping was the strategy most often used in the present study include caring beliefs, the availability of positive support, and the subjects’ good health conditions. Firstly, the optimistic coping strategy often used by the subjects in this study might be due to nothing being able to be done to modify the stressful situation. In this present study, the family caregivers had

provided care for an average of seven years (Table 3). This means that the patients had not been newly diagnosed with schizophrenia. On average, the patients were hospitalized around two times ($M = 1.98$; $SD = 1.87$) and visited a doctor every month (100%). Additionally, the severity of the patients' disease was perceived to be at a moderate level by the family caregivers (45.5%) (Table 2). Based on Lazarus and Folkman's (1984) theory, optimistic coping includes coping strategies which are emotionally focused. Such strategies are most likely to be used when a person has appraised a situation and found that nothing can be done to modify harmful, threatening, or challenging environmental conditions.

Secondly, the optimistic coping strategy often used by the subjects in this study might be due to the Sundanese values and Muslim beliefs of the subjects. The data showed that 51.1% of the subjects were mothers (Table 3), 92% were Sundanese, and 98.9% were Muslim (Table 1). Concerning caring, Sundanese people believe that parents, particularly mothers, are responsible for caring for their children voluntarily (Suryani, n.d). In addition, Niehof (1998) stated that Indonesian women believe that a women's natural destiny is to be a mother and wife who provides care for her family. Muslims believe that being sick is a part of life, a test of patience from their God, and atonement for their sins; hence, they have a responsibility to search for appropriate treatments. Thus, Islam encourages Muslim people to think positively, viewing illness as a mechanism the body uses to cleanse itself of physical, emotional, and mental illness (Rassool, 2000). These beliefs result in positive thinking in the face of problems. This is also in line with a study conducted by Vanaleesin, Suttharangsee, & Hatthakit (2007), which took an Islamic perspective regarding family caregivers caring for persons with schizophrenia in southern Thailand. They found that the

family caregivers believed that the success or failure of the schizophrenia treatment was determined by Allah. They also believed that the meaning of caring included love and concern, an obligation of family members, a caregiving role ascribed by Allah, and a test of patience set by Allah.

Thirdly, the frequency with which optimistic coping was used by the subjects in this study might have been due to their perception of the availability of positive support from social networks. The findings showed that 64.8% of the subjects perceived social support to be at a moderate level (Table 5). The possible beneficial effects of positive social support are a reduction in uncertainty and worry, the ability to share problems, and the ability to share advice or suggestions. In these ways, positive social support can positively shape a subject's thoughts regarding his or her problems. The researcher found that optimists had higher relationship satisfaction than pessimists, and that this difference was due to their perceptions of the relative supportiveness of their partners (Abend & William, as cited in Carver, Scheir, & Segerstrom, 2010).

Thirdly, the good health condition of the subjects might have contributed to their use of optimistic coping. The researcher found that 76.1% of the subjects did not have a chronic disease (Table 2). The good health condition of the subjects may have influenced their thinking regarding their caring efforts, as they had a strong capability to provide care. This is consistent with Mengdan, Lambert, and Lambert's (2007) finding that physical health is the best predictor of a caregiver's coping patterns. People, who are sick, tired, or in poor physical health have less energy to expend on coping strategies than healthy people (Lazarus & Folkman, 1984).

The findings of this study showed that the subjects sometimes used self-reliant coping, confrontative coping, supportant coping, fatalistic coping, evasive coping, palliative coping, and emotive coping (Table 8). The unstable condition of the persons with schizophrenia might have contributed to this finding. The persons with schizophrenia in this study were in the maintenance and recovery phases. They were sometimes stable but could relapse at any time. The results showed that most of the mentally ill members (65.8%) had been hospitalized about two times during sick (Table 2). Because of this situation, the subjects may have developed various coping strategies to deal with the stressful changes they faced. Problem-focused coping may have been used by the subjects when their patient's condition was stable, but emotive coping perhaps came into play during disease relapse (Lazarus & Folkman, 1984). The present study showed that the mentally ill member's behavior making the subjects worried the most was violent (61.4%) (Table 2). This finding is consistent with the results of a study done by Xuan-Yi, Sun, Fan-Ko, Wen-Jiuan, & Chow-Mei (2008). They collected data, using in-depth interviews, on ten subjects who lived with persons with schizophrenia in Taiwan. The study found that the most common coping strategies used by the subjects were psychological coping (including cognitive, behavioral, and emotional coping) and social coping (including religious, social, and professional support elements).

In the present study, the three coping strategies most often used after optimistic coping were self-reliant coping, confrontative coping, and supportant coping. This is inconsistent with a study conducted by Lindqvist et al. (2000) on 1200 Swedes (600 men and 600 women). They study found that the coping strategies most frequently used were confrontative coping, optimistic coping, and self-reliant coping.

In the present study indicated that self-reliant coping (depending on oneself to deal with a problem) was often employed, though less than optimistic coping. Firstly, this might be due to the lack of available resources. As mention before, in Indonesia, mental health care services, psychiatrists, and psychiatric nurses are still limited. In other word, the ratio between psychiatrist, psychiatric nurses, and patients are imbalance. Certainly, the public's mental health care needs are not entirely fulfilled (Indonesian Department of Health and Social Welfare, 2001). Therefore, the subjects tended to solve their problem by themselves.

Secondly, the subjects may have lacked support from family members due to poor economic conditions. Many Sundanese families are living below the poverty line, particularly after the economic crisis which occurred in Indonesia in 1996. Households with a stable income and permanent job contracts are rare among Sundanese families (Chase-Lansdale & Owen, Gecas, Greenberger, O'Neill, & Nagel, as cited in Zevalkink et al., 1999). Family members who experience stressful events may not be able to provide support for others (Cohen & Syme, 1985). However, Sundanese and Muslim beliefs about caring helped to motivate the subjects to solve their problems related to caring. Therefore, the lack of resources tended to cause the subjects to solve their problems by themselves.

Lastly, caregivers perceived that their mentally ill member expected the family caregiver to take care of him or her as if the family caregiver were the only one he or she could depend on (Table 12). Therefore, the subjects did their best to remedy any care-related problems. This was a finding in a study conducted by Ortega and Alegria (2002) among Puerto Ricans living in low income areas who were selected by random sampling. Their aim was to examine the relationship between

self-reliance and five mental healthcare services: mental health care, general health services, specialty care, psychotropic medication, and retention in mental health care. The results showed that 62% of Puerto Ricans reported having a self-reliant attitude and that 13% had used mental health care. There was a negative relationship between each of the five mental health care services and the subjects' degree of self-reliance.

The present study found that confrontative coping (constructive problem-solving, facing up to and confronting the problem) was the third most often used strategy, after optimistic and self-reliant coping. Confrontative coping in the present study might be related to long period of caring. In this study, the subjects had provided care for an average of seven years (Table 3). The long period of caring gave the subjects the opportunity to learn to manage threatening situations (Lazarus & Folkman, 1984).

The present study found that supportant coping (using a support system to cope, whether it be personal, professional, or spiritual) was the fourth most common coping strategy used, after optimistic, self-reliant, and confrontative coping. All of the subjects sought religious support; the data showed that all of the subjects prayed or put their trust in God (Table 9). The degree of supportant coping used by the subjects might be related to their Muslim beliefs because 98.9% of the subjects were Muslim (Table 1). Muslim beliefs are important for the Sudanese people and contribute to their daily lives (Niehof, 1989). Since childhood their parents had exposed their children to Islamic education, such as by reading them the holy Qur'an. These beliefs influenced the subjects' appraisal of caring. They may have believed that seeking support from God would empower them. Hence, the subjects have coped by putting their trust in God. A literature review conducted by Baldacchino and

Draper (2000) showed that a relationship with God can help a person to cope with their problems because the relationship gives them meaning, purpose, and hope.

Interestingly, evasive coping (doing things to avoid confronting a problem), palliative coping (doing things to make oneself feel better, such as eating, drinking, or taking medication), and emotive coping (relying on expressing or releasing emotions in order to relieve stress) were the strategies least often used by the subjects (Table 8). This is inconsistent with the findings in a study conducted by Lindqvist et al. (2000) on 1200 Swedes. Their study found that the three least-used strategies were emotive coping, supportant coping, and palliative coping.

The reason why the subjects in this study rarely used evasive coping, palliative coping, and emotive coping might be because the persons with schizophrenia in this study were quite stable. The subjects had been providing care to them for an average of seven years (Table 3). The persons with schizophrenia were in the maintenance and recovery phases, so they were generally stable, even though relapse could have occurred at anytime due to exacerbation of symptoms (Bostrom & Boyd, 2005). Data showed that the mentally ill member usually visited the doctor every month, and the subjects perceived that the mentally ill members' disease was at a moderate level (Table 3). Because the persons with schizophrenia were in a stable condition, their condition may have been appraised as "low threat" by the subjects, thus reducing their reliance on emotional coping strategies, such as evasive coping, palliative coping, and emotive coping. This assertion is supported by a study conducted by Christman et al. (2007) that examined the association between the uncertainty of an illness and the use of coping strategies to address emotional distress

following myocardial infarction. The results showed that uncertainty influenced the amount of emotional distress, and thus the use of emotive coping.

In conclusion, optimistic coping was the most frequently used strategy by the subjects, followed by self-reliant coping, confrontative coping, and supportant coping. The three coping strategies which were least often used were evasive coping, palliative coping, and emotive coping. Some factors related to these findings included their beliefs, the amount of support available, the subjects' health conditions, the lack of resources, the long period of caring, and the stability of the person with schizophrenia.

Burden of family caregivers caring for persons with schizophrenia

Burden in this study was categorized as being at a moderate level (Table 10). This was not consistent with the findings in other studies on caregivers who were caring for persons with schizophrenia, as subjects in those studies experienced greater burden (Caqueo-Urizar & Gutierrez-Maldonado, 2006; Grandon et al., 2008; Juvang, Lambert, & Lambert, 2007; Lim & Ahn, 2003; Roick et al., 2007; Shu-Ying, Chiao-Li, Yi-Ching, For-Wey, & Chun-Jen, 2008; Wai-Tong, Chan, & Morrissey, 2007).

The reason why burden in this study was at a moderate level might be because the caregivers had provided care for long periods (seven years), and they had close relatives (relatives, spouse, and children) who helped them (Table 3). During those years, the family caregivers usually performed such care duties as giving patients medication, helping them with their daily activities, and accompanying them on medical checkups. This means the caregivers had to spend a lot of money and time

to care for their patients (Caqueo-Urizar & Gutierrez-Maldonado, 2006). In addition, the caregivers also had to face some dangerous behaviors from persons with schizophrenia (Roick, Heider, Toumi, & Angermeyer, 2006). Violent behavior was the mentally ill member's behavior making the subjects worried the most. (61.4%) (Table 2). In addition, the data showed that 75% of the subjects felt that the mentally ill members were dependent on them (Table 12). This dependence, over a long time period, might have the effect of limiting the time, energy, and attention the caregiver. This is consistent with a study conducted by Fujino and Okamura (2009) on 30 patients and 30 caregivers in Japan. The results of that study showed that a patient's disability results in dependence, and is associated with caregiver burden. Another study found that daily time spent caregiving was related to burden (Chii et al., 2009; Juvang et al., 2007).

However, close relatives who help the subjects in caring for persons with schizophrenia might counterbalance the moderate level of burden in this present study. The data showed that the average number of family members living in a household was four (Table 1), and that 61.4% of the subjects had a close relative (relatives, spouse, and children) who helped them (Table 3). This allowed the subjects take a break and socialize to relax. This is congruent with a study conducted by Ling-Ling, Hai-Gwo, Chun-Houh, Chen-Hsin, and Wu (2008). They found that the primary caregivers of persons with schizophrenia needed assistance with patient care (77.6%), information (66.1%), social support (68.2%), and burden reduction (27.2%).

The financial dimension of burden was perceived to be at a severe level (Table 10). This might be because the subjects had low income, in general. The present study showed that 50% of the subjects had an income of less than 500,000

rupiahs per month, and 69.3% of the subjects perceived that this income was inadequate (Table 1). Compared to the West Java Province minimum wage in 2011, which was approximately 732,000 rupiahs per month (Indonesian Ministry of Labor and Transmigration as cited in *Upah minimum propinsi [UMP] 2011 naik*, 2011), the subjects' income was fairly low. Moreover, in Indonesia, the economic crisis in 1996 affected approximately 39 to 49 million Indonesian people who were living below the poverty line (Widiana, as cited in Hancock, 2001). Thus, a lack of financial resources might have influenced the subjects' coping options. The subjects may not have been able to access professional assistance easily, which could have increased their likelihood of coping ineffectively (Lazarus & Folkman, 1984). The present study also showed that 60.2% of the subjects 'quite frequently' and 'nearly always' did not have enough money to take care of the mentally ill member (Table 12). The study found that income was significantly correlated with burden due to the fact that the family caregivers had to provide care to persons with schizophrenia and yet also had to find a way to generate income to support themselves and their (Andren & Elmstahl, 2006), as well as pay for patient expenses (Caqueo-Urizar & Gutierrez-Maldonado, 2006) and deal with other financial and employment problems (Looman, O'Conner, Ferski, & Hildenbrand, 2009).

In this present study, the burden dimensions (including relationship burden, emotional well-being, and loss of control over one's life) were ranked at a moderate level (Table 10). The mentally ill members' condition might have contributed to this moderate level. In this study, the persons with schizophrenia were still dependent on their family caregiver. The data showed that the subjects felt that their patients were dependent on them (73.8%), and that the subjects felt that their

patients expected the subjects to take care of them, as if the subjects were the only one they could depend on (75%). This patient dependence on the family caregiver impacted the feelings of the caregivers, causing them to worry about their patient's future. Data showed 72.8% of the subjects were afraid what the future hold for their mentally ill member (Table 12). These findings were supported by a study conducted by Fujino and Okamura (2009), which aimed to identify the factors affecting the burden of family caregivers in Japan. The results of the study showed that the patients' degree of disability in daily life and community functioning was associated with caregiver burden. Another study conducted by Juvang, Lambert, and Lambert (2007) found that when caregivers become older, they worry about who will care for their ill family member in the future.

However, positive caring beliefs might have counterbalanced the negatives, resulting in the moderate burden level, as found for the relationships dimension, emotional well-being dimension, and loss of control over one's life dimension. Sundanese people believe that the family has to care for an ill family member. They also believe that when people help others, particularly in the case of a mother helping her children, the help should be given voluntarily (Suryani, n.d.). The findings showed that 62.5% of the subjects 'never' and 'rarely' left the care to someone else (Table 13). These beliefs helped the subjects to cope effectively when caring for their persons with schizophrenia, thus lowering their burden.

Lastly, it was found in the present study that burden dimensions related to social and family life were perceived to be at a mild level. This finding is inconsistent with a study conducted by Lee and Sung (as cited in Janevic & Connell, 2001). They found that Korean caregivers experienced more social burden than

American caregivers; this was because the Korean caregivers experienced higher levels of social burden related to embarrassment (Youn, as cited in Janevic & Connell, 2001).

In the present study, 84.1% of the subjects perceived that their mentally ill members 'never' and 'rarely' affect the subjects' relationships with other family members or friends and 65.9% of the subjects 'never' and 'rarely' felt uncomfortable about having friends over (Table 13). It might be that the subjects had positive support from family and social circles. The data showed that the average number of family members living in each household was four (Table 1) and that 61.4% of the subjects had close relatives (relatives, spouse, and children) who helped them (Table 3). Therefore, the subjects could still take part in social activities. This is congruent with a study conducted by Ling-Ling et al. (2008). They found that the primary caregivers of persons with schizophrenia needed assistance with patient care (77.6%), information (66.1%), social support (68.2%), and burden release (27.2%). In addition, although mental illness is still considered to be a stigma in the Sundanese community, over a long time period, patients can come to be accepted socially. In other words, neighbors and friends can learn to understand the condition of persons with schizophrenia. The in the present study found that the subjects' neighbors 'never' or 'seldom' (67%) isolated the subjects because of their mentally ill patient (Table 7), and that the subjects' neighbors 'sometimes' or 'often' (80.7%) stated that the subjects were being tested by God (Table 6). Horikoshi-Roe (1979) found that most mentally ill people in Sundanese communities live with their families, and villagers can tolerate the unusual behaviors of these people.

In summary, in this study, burden was felt to a moderate degree by the subjects. Financial burdens were severe, while the burdens relating to relationships, emotional well-being, and loss of control over one's life were all at a moderate level. However, social and family life dimensions were at a mild level. Factors contributing to burden included amount of support, duration of caregiving, lack of financial resources, the patient's condition, positive beliefs about caring, and positive support from family and social circles.

Relationship between social support and coping of family caregivers caring for persons with schizophrenia

The hypothesis of this study was that there is a relationship between social support and coping. The findings of this study partially confirmed this hypothesis. The results showed that there were significant, positive correlations between perceived social support and confrontative coping ($r = .68, p < .01$), optimistic coping ($r = .42, p < .01$), and supportant coping ($r = .46, p < .01$). These findings are consistent with those of a previous study by Tak and McCubbin (2002) on 92 families which had a child under the age 12 who had been diagnosed with congenital heart disease (CHD). The results in their study indicated that perceived social support was positively correlated with effective parental coping.

The results also showed that social support was negatively correlated with evasive coping ($r = -.52, p < .01$) and fatalistic coping ($r = -.40, p < .01$) (Table 14). These findings are consistent with findings from a study conducted by Lopez-Martinez, Esteve-Zarazaga, and Ramirez-Maestre (2008) on 117 patients with chronic

pain in Spain. That study found the negative correlation between passive coping and perceived social support.

Theoretically, when a person faces a stressful situation, she or he will appraise what can be done to deal with the problems, which coping options are available, the probability that the coping options will solve the problems, and the probability of successfully applying a particular strategy. In this study, giving care to persons with schizophrenia was appraised as a stressful situation by the family caregivers. The family caregivers perceived social support to be a way to cope with problems or stressful situations, so the availability of this support helped to solve their caregiving problems. Based on this appraisal, the family caregivers might have tried to cope with their situation by seeking support, solving problems, or maintaining positive thinking. Through social support, they might share problems and receive empathy and positive feedback. Based on their appraisals, they made an effort to deal with their situation by using emotion-focused coping strategies to make cognitive changes. These included positive thinking and problem-focused coping, such as confrontative coping and supportant coping (Lazarus & Folkman, 1984). Therefore, high social support was associated most often with optimistic coping, confrontative coping, and supportant coping. However, lack of social support was most often associated with fatalistic coping and evasive coping.

In this study, social support was significantly and positively associated with confrontative coping, optimistic coping, and supportant coping. This might be because of the subjects' appraisal of their problems and the positive function of social support. The subjects might have appraised caring for a schizophrenic person as a stressful situation, but one that could be modified because the patient was stable and

the subjects had social support which allowed them to share their difficulties. Next, the subjects appraised how well their social support helped them to deal with problems. The data in the present study showed that the subjects (88.6%) perceived that their family or relatives 'sometimes' and 'often' prayed for them in order to get blessing from God due to their noble duty in caring for the mentally ill member, 75% of the subjects perceived that their relatives or family 'sometimes' and 'often' concerned with their problems in regards to care for the mentally ill member, 70.5% of the subjects perceived that their relatives or friends 'sometimes' and 'often' gave suggestions to deal with problems while caring for the mentally ill member (Table 6).

These findings might be due to Sundanese cultural beliefs and Muslim beliefs. In the present study, 98.9% of the subjects were Muslim (Table 1) and 100% of the subjects stated that they prayed or put their trust in God (Table 9). Most of the subjects (92%) were Sundanese (Table 1) and 61.4% had a family which helped them in caring for their mentally ill relation (Table 3). Sundanese people believe that all relationships should be based on "*silih asih, silih asah, silih asuh.*" This phrase means that people should care for, love, and guide each other (Suryani, n.d.). Muslims believe that every Muslim is a family member who should be helped. These perceptions tended to cause the subjects to use such coping strategies as seeking support, keeping an optimistic attitude, and solving problems. Social support helps a person to share his or her problems, receive sympathy, and receive helpful suggestions. This enables the subject to confront a difficult situation, face up to problems, use constructive problem solving, and maintain positive thinking (Suls, as cited in Lazarus & Folkman, 1984). The literature review of a study conducted by

Baldacchino and Draper (2000) showed that a relationship with God helped people to cope with their problems because it gave them meaning, purpose, and hope.

In this study, social support was significantly, negatively associated with fatalistic coping and evasive coping. This might be because of the subjects' appraisal and the subjects' unmet needs. The subjects might have appraised caring for a schizophrenic person as a stressful situation, but one which could not be modified because of the danger of relapse. They may also have perceived low social support in sharing their difficulties. The data in the present study found that frequency of hospitalization of the mentally ill member was at average two times (Table 2), that 68.2% of the subjects perceived that they 'sometimes' and 'often' had difficulties to get a loan to fulfill the needs of the mentally ill member (Table 6), 71.6% of the subjects perceived that in an emergency situation their relatives 'never' and 'seldom' provided transportation to deliver the mentally ill member to a hospital, 60.4% of the subjects perceived that their family or relatives 'never' and 'seldom' accompanied the mentally ill member to check-up on their illness when they were sick or busy (Table 7). Another factor might be because their families generally lacked financial stability. It was found that 50% of the subjects had an income of less than 500,000 rupiahs per month, and that they felt their income was inadequate (69.3%). Cohen and Syme (1985) stated that a person who experiences a stressful event may not be able to provide support to others. Therefore, the subjects may have preferred to avoid their problems (evasive coping) and take a pessimistic or hopeless attitude towards them (fatalistic coping). This would be in line with a study by Grant et al. (2006). They found that greater social support was associated with lower depression.

However, in this study, social support was not significantly associated with emotive coping, palliative coping, or self-reliant coping ($r = -.12$, $r = .03$, $r = -.10$; $p > .05$) (Table 14). This means that no matter how the subjects perceived social support, the emotive, palliative, and self-reliant coping strategies were not factors.

In the present study, social support was not significantly correlated with emotive coping, palliative coping, or self-reliant coping. This might be due to the cultural and social lives of the subjects. Firstly, palliative coping involves an attempt to reduce tension by doing things, such as smoking, drinking, taking medication, relaxing, keeping busy, or distracting oneself by doing enjoyable activities. Smoking, drinking, and taking medication to reduce tension are not common strategies used by Sundanese people, particularly middle-aged women. However, relaxing (dzikir), keeping busy, or performing routine activities are all quite common. Secondly, being self-reliant meant that a person depended on himself or herself to deal with problems. Emotive coping involves worrying, releasing emotion, being impulsive, and engaging in self-blaming. Culturally, Sundanese people are not open about their personal problems or their emotions and feelings. They usually feel hesitant or ashamed to talk about their problems with others, although social support is available for them and they generally appear outwardly calm when facing problems (Suryani, n.d.). The caregivers tried to solve problems by themselves, such as financial problems, especially when they lacked social support. The caregivers also believed that their patient expected to be cared for by them (Table 12), so the caregivers made an effort to solve their problems. Therefore, no matter how the subjects perceived social support, emotive, palliative, and self-reliant coping were not affected.

In summary, perceived social support was positively correlated with confrontative coping, optimistic coping, and supportant coping. Social support was negatively correlated with evasive coping and fatalistic coping. Social support was correlated with both emotion-focused and problem-focused coping. It helped the subjects to share problems and receive empathy, which may be the reason why the subjects used confrontative coping, supportant coping, and optimistic coping more than evasive coping and fatalistic coping.

Relationship between coping and burden of family caregivers caring for persons with schizophrenia

The hypothesis of this study was that there is a relationship between coping and burden. The findings of the study partially confirmed this hypothesis. The findings showed that confrontative coping, optimistic coping, and supportant coping were all significantly, negatively correlated with burden ($r = -.40$, $r = -.31$, $r = -.36$; $p < .01$), respectively. Evasive coping, fatalistic coping, and emotive coping were all significantly, positively correlated with burden ($r = .50$, $r = .57$, $r = .38$; $p < .01$), respectively (Table 14). These findings are consistent with those from a study conducted by Mengdan et al. (2007) in which the differences between parental burden and parental coping for Chinese parents of children with mental illnesses were examined. These researchers found that there was a negative correlation between parental coping and parental burden. The parents who maintained a functional family life, kept optimistic, preserved their social support resources and self-esteem, and understood medical conditions experienced fewer burdens than those who did not. Another study found that 28 spouses of schizophrenic patients in Germany used

problem-solving coping strategies, such as information seeking and crisis planning to release their burdens (Jungabauer & Angermeyer, 2003).

According to Lazarus and Folkman (1984), when a person faces a stressful situation, she or he will make an effort to manage the situation after he or she appraises what can be done to deal with the problems involved. In this study, caring for persons with schizophrenia was appraised as a stressful situation by the family caregivers. Therefore, they tried to cope with this situation in order to regulate their emotions (emotion-focused coping strategies) or relieve the problem (problem-focused coping strategies). Emotion-focused coping strategies were used when the family caregiver appraised that nothing could be done to modify the stressful situation. These coping strategies included evasive coping, fatalistic coping, emotive coping, palliative coping, and optimistic coping. Problem-focused coping strategies were used when the caregivers appraised a stressful situation as a challenge. Problem-focused coping strategies often involve defining the problem, developing alternative solutions, weighing the costs and benefits, choosing among them, and acting. Problem-focused coping strategies included confrontative and supportant coping. The effectiveness of a strategy is determined only by its results over a long time period. Coping is effective if it can allow the user to manage problems and reduce negative emotions and feelings that result in physical and emotional well being (Lazarus and Folkman, 1984). Therefore, confrontative coping, optimistic coping, and supportant coping were associated with lower burden in this study, as these coping strategies allowed the subjects to think positively and solve their problems by seeking support and dealing with the problems. However, evasive coping, fatalistic coping, and emotive coping were associated with severe burden because these coping strategies

only allowed the subjects to regulate their negative emotional feelings for short time, and did not help them to solve their problems permanently.

In this present study, confrontative coping, optimistic coping, and supportant coping were significantly, negatively correlated with burden. This was probably because of the effective outcomes of these coping strategies. The effectiveness of coping strategies depends on the appraisal toward a stressful situation that was influenced by beliefs in caring. Most of the subjects in this study were Sundanese (92%) and Muslim (98.9%) (Table 1). Sundanese beliefs in caring include the importance of providing good care for their children (Nichof, 1998). Additionally, Muslims believe that a disease is a test from God (Rassool, 2000). These beliefs influenced the effectiveness of the coping choices of the subjects, such as optimistic coping and problem solving. These coping strategies were effective in reducing burden because they helped to regulate the subjects' negative emotional feelings and better enabled the subjects to deal with problems (Lazarus and Folkman, 1984). This was in line with a study conducted by Ramirez-Maestre, Esteve, and Lopez (2008). They found that high levels of threat appraisal were associated with extensive passive coping and low levels of active coping, along with reportedly low levels of daily functioning. Another study done by Dysyik, Natvig, Eikeland, and Lindstrom (2005) found that pain was appraised as a challenge, resulted in the use of problem focus coping to manage this situation.

On the other hand, the present study findings revealed that evasive coping, fatalistic coping, and emotive coping were used, and were significantly, positively correlated with burden. This may have been due to the ineffective coping outcomes of these coping strategies. In the use of these ineffective coping strategies

was influenced by the subjects' appraisal of stressful situations, while these appraisals were influenced by their schizophrenic person's conditions. When the persons with schizophrenia suffered a relapse, the subjects may have appraised the situation to be threatening. The present study showed that the mentally ill member's behavior making the subjects worried the most was violent behavior (61.4%) (Table 2). When the subjects appraised a situation as threatening, it may have resulted in negative emotional feelings, such as worry. In order to reduce these negative emotional feelings, the subjects may have used evasive coping (doing things to avoid confronting the problem), emotive coping (rely on expressing or releasing emotions to try to relieve stress) or palliative coping (doing things to make oneself feel better, such as eating, drinking, or taking medication). These coping strategies might have been effective in regulating negative feelings for a while, but when used over long time periods, they may ultimately have proven ineffective because the problems still existed (Lazarus & Folkman, 1984). Therefore, when the subjects used more evasive coping, emotive coping, or palliative coping strategies, their burden may also have increased. These findings were consistent with a study conducted by Magliano et al. (2000). Their study demonstrated that significant, positive correlations existed between avoidance coping and objective and subjective burden, as well as between resignation coping and objective and subjective burden.

The present study showed that there was no significant correlation between burden and palliative coping or self-reliant coping ($r = .14$, $r = .18$; $p > .05$), respectively (Table 14). This finding was inconsistent with a study conducted by Ortega and Alegria (2002), they found that high self reliance was correlated with a low propensity to seek support from mental health care professional.

In the present study, palliative coping and self-reliant coping were not significantly correlated with burden. This might be due to the influence that culture had on the subjects' social lives. Palliative coping involved reducing tension by doing things, such as smoking, drinking, taking medication, relaxing, keeping busy, or distracting oneself with doing enjoyable activities. Relaxing (dzikir), keeping busy, and doing something were routine for the subjects. However, smoking, drinking, taking medication to reduce tension is not common in Sundanese culture, particularly for middle aged women. Secondly, self-reliant coping in this study involved depending on oneself to deal with problems. This might also have been influenced by culture. Culturally, Sundanese people do not like to talk about their private problems. They usually feel hesitant or ashamed to discuss their problems with others, even though social support is available for them. Moreover, self-reliant coping was not correlated with burden. This might be because the subjects knew that some caregivers' problems or burdens cannot be changed, despite any efforts on their part. It is very rare to permanently cure schizophrenia, even though the disease itself is treatable. Therefore, some caregiving burden will always exist.

In conclusion, negative correlation were found between burden and confrontative coping, optimistic coping, and supportant coping. There were positive correlations between burden and evasive coping, fatalistic coping, and emotive coping. The effectiveness of each coping strategy, the subjects' beliefs in caring, and the condition of the person with schizophrenia might have contributed to the findings.

Relationship between social support and burden of family caregivers caring for persons with schizophrenia

The hypothesis of this study stated that there is a negative relationship between social support and burden of family caregivers caring for persons with schizophrenia. The findings confirmed this hypothesis. The study findings showed that social support was significantly, negatively correlated with burden ($r = -.50, p < .01$) (Table 14). This means that the higher perceived social support, the fewer burdens felt. This is consistent with findings in other studies, where perceived social support was also significantly, negatively correlated with the level of caregiver burden (Chii et al., 2009; Magliano et al., 2000; Wai-Tong et al., 2007).

Based on Lazarus and Folkman (1984), the act of caring for persons with schizophrenia in this study was appraised to be a stressful situation by the family caregivers. Family caregivers perceived social support as a resource to help them cope with problems or stressful situations. They probably thought that the availability of social support would solve their problems. Based on this appraisal, family caregivers might have decided to use problem-focused coping strategies, such as support seeking and problem solving, or emotional focused coping strategies, such as optimistic coping. This might be because social support helped the family caregivers to share problems, receive empathy, and receive positive feedback through social support. The effectiveness of a strategy is determined only by its effectiveness in helping a person to deal with problems over a long period of time. A coping strategy is effective if it can help a person to manage problems, and regulate his or her negative emotional feelings, and achieve physical and emotional well being. Because optimistic coping, supportant coping, and confrontative coping can help a person to deal with problems

and regulate negative emotional feelings, these were used by the subjects, and indeed help them to reduce their burden (Lazarus & Folkman, 1984).

In this the present study, social support was significantly, negatively correlated with burden. This might be because social support enables the subjects reduce their burden through effective coping strategies. In this study, the act of caring for persons with schizophrenia was perceived to be a stressful situation by the subjects, but they appraised this situation as a challenge. Therefore, the subjects might have appraised the availability of support from their family and God as something which could help them to solve this problem. The data showed that 98.9% of the subjects were Muslim (Table 1) and 61.4% of the subjects had close relatives (relatives, spouse, and children) who helped them in caring for their mentally ill (Table 3). The subjects also tried to cope with their situation by seeking support from God, such as prayed or put trust in God; keep optimistic, such as tried to see the good side of the situation, hoped that things would get better, and tried to think positively (Table 9). These coping strategies motivated the subjects to solve their problems and maintain positive feelings, which may have resulted in decreasing their burdens. This is supported by a study conducted by Grant et al. (2006) on 52 caregivers of stroke survivors. They found that social support was associated with lower level of caregiver depression, better problem-solving strategies, and higher levels of well-being.

In conclusion, the present study demonstrated that social support is negatively correlated with burden. Social support facilitated the family caregivers in coping. The fact that they sought support from God and kept optimistic may have contributed to the fact that there were fewer burdens on the family caregivers than there otherwise would have been.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

This chapter describes conclusion of the study. The main topics in this chapter include a summary of the study, strengths and limitations of the study, and implications and recommendations.

Summary of the Study

The descriptive correlation study was designed to examine the relationships among social support, coping, and burden of family caregivers caring for persons with schizophrenia. Data were collected at the outpatient department of West Java Province Mental Hospital, Indonesia from October to December 2010. The researcher recruited 88 of the family caregivers caring for persons with schizophrenia using purposive sampling technique. Data were collected with self-report questionnaires, then were analyzed with descriptive statistic and Person's product moment correlation coefficient, except for two dimensions of burden: social and family life dimension and financial dimension used Spearman's rho.

The results showed that the majority of the subjects were female, on average age 52 years old, and married. Almost all of them were Sundanese and Muslim. More than forty percent of the subjects had an education at elementary school level, were a housewife, and had an income less than 500,000 rupiahs per month with an average four people living in a household. The majority of the subjects felt inadequate with their income. In terms of health related to the mentally ill

member, the majority of the persons with schizophrenia were male on average 30 years old. The average number of hospitalizations was two times during their sickness and all the subjects visited the physician every month. More than forty percent of the subjects perceived disease severity at a moderate level. The mentally ill member's behavior making the subjects worried the most is violent behavior. In terms of caregiving, most of the subjects were mothers with the average number of years of providing care at about seven years and providing full day care each day. The majority of the subjects only cared for the mentally ill member and the subjects did not suffer from chronic disease. Most of them had a significant other who helps in caring, such as relatives, children, or their spouse.

Overall social support including its dimensions: emotional support, informational support, instrumental support, and appraisal support were perceived at a moderate level by the family caregivers. The most coping strategy often used was optimistic coping, followed by self-reliant coping, confrontative coping, and supportant coping. Evasive coping is the coping strategy used least followed by palliative coping, and emotive coping. Overall burden was at a moderate level. According to the burden dimensions, financial dimension was at a severe level. However, social and family life dimension was at a mild level. Burden in the relationship, emotional well being, and loss of control over one's life dimension, were at a moderate level.

The lastly, social support significantly and positively correlated with confrontative coping, optimistic coping, and supportant coping. Social support significantly and negatively correlated with evasive and fatalistic coping. Evasive coping, fatalistic coping, and emotive coping significantly and positively correlated

with burden. Confrontative coping, supportant coping, and optimistic coping significantly and positively correlated with burden. Social support significantly and negatively correlated with burden.

Strengths and Limitations

This study has strengths and limitations. The setting, West Java Mental Hospital, was the strength of the study. This hospital was the top referral mental hospital in West Java Province, so the study sample from this hospital can be representative of family caregivers in West Java Province.

However, the instruments were considered as limitations for this study. Firstly, the instruments are self-reported, so the subjects possibly tended to answer the questions in the middle score range. Secondly, the PSSQ was developed by the researcher, but the items mostly asked family, relatives, and neighbours as a support person for family caregiver. In addition, there were a few number of items for the appraisal dimension and there were some subscales with a low reliability. Therefore, there is a need for further study in social support concept.

Implications and Recommendations

Nursing practice

The findings of the study can be information for nurses while providing care. Social support and coping are important for family caregivers to reduce their burden load. The nurse can promote family caregivers caring for persons with schizophrenia to use both problem-focused coping strategies (confrontative

coping: confront the problems and supportant coping: using support system, such as personal, professional, or spiritual to deal with burden) and emotional-focused coping strategies such as optimistic coping: positive thinking toward problems in order to help decrease the burden. In addition, nurses can provide emotional, informational, instrumental, and appraisal support that are appropriate to the family caregivers' needs. Nurse also can be a person who mediates family to provide support for caregivers. Therefore, nurses' understanding toward social support, coping strategies, and burden of family caregivers caring for persons with schizophrenia based on their beliefs, value, educational level, and economic status are crucial as knowledge in doing assessment, planning, and providing intervention.

Nursing education

The findings of the study can be a consideration for nursing education. The content of basic nursing related to caring for the family with a schizophrenic person should incorporate coping, social support, and burden with regard to local population's values and beliefs.

Nursing research

The findings of the study can be basic information for further study. For further replication study, it is recommended to collect data by using other strategies, such as interviews because it can help researchers to get more detail leading to more understanding of the study. In addition, there is a need to modify the social support questionnaire to include other supporters and re-test for its reliability.

REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorder: DSM-IV-TR* (4th ed.). Arlington, VA: American Psychiatric Publishing.
- Anderson, P. D., Williams, I. C., & Gibson, B. E. (2002). Issues of race, ethnicity, and culture in caregiving research: A 20-year review (1980-2000). *The Gerontologist, 4*, 237-272.
- Andren, S., & Elmstahl, S. (2007). Relationship between income, subjective health, and caregiver burden in caregivers of people with dementia in group living care: A cross-sectional community-based study. *International Journal of Nursing Studies, 44*, 435-446.
- Azar, M., & Badr, L. K. (2010). Predictors of coping in patients of children with an intellectual disability: Comparison between Lebanese mothers and fathers. *Journal of Pediatric Nursing, 25*, 46-56.
- Baldacchino, D., & Draper, P. (2000). Spiritual coping strategies: A review of the nursing research literature. *Journal of Advanced Nursing, 34*, 833-841.
- Braithwaite, V. (1992). Caregiving burden: Making the concept scientifically useful and police relevant. *Research on Aging, 14*(1), 3-27.
- Bostrom, A. C., & Boyd, M. A. (2005). Schizophrenia. In M. A. Boyd (Ed.), *Psychiatric nursing: Contemporary practice* (3rd. ed., pp. 265-310). Philadelphia, PA: Lippincott Williams & Wilkins.
- Caqueo-Urizar, A., & Gutierrez-Maldonado, J. (2006). Burden of care in families of patients with schizophrenia. *Quality of Life Research, 15*, 719-724.

- Caqueo-Urizar, A., Gutierrez-Maldonado, J., & Miranda-Castillo, C. (2009). Quality of life in caregivers of patients with schizophrenia: A literature review. *Health and Quality of Life Outcomes, 7*(84), 1-5.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review, 30*, 879-889.
- Chii, J. C., Hsing-Yi, C., Pin, C., & Hsiu, H. W. (2009). Social support and caregiving circumstances as predictors of caregiver burden in Taiwan. *Archives of Gerontology and Geriatrics, 48*, 419-424.
- Chiung-Yu, H., Sousa, V. D., Chun-Chin, T., & Mei-Yi, H. (2008). Social support and adaptation of Taiwanese adults with mental illness. *Journal of Clinical Nursing, 17*, 1795-1802.
- Chou, K. R. (2000). Caregiver burden: A concept analysis. *Journal of Pediatric Nursing, 15*, 398-399.
- Christman, N. J., McConnell, E. A., Pfeiffer, C., Webster, K. K., Schmitt, M., and Ries, J. (2007). Uncertainty, coping, and distress following myocardial infarction: Transition from hospital to home [Abstract]. *Research in Nursing & Health, 11*(2), 71-82.
- Clement-Stone, S., Eigsti, D. G., & McGuire, S. L. (1995). *Comprehensive community health nursing: Family aggregate and community practice* (4th ed.). St. Louis, MO: Mosby.
- Cohen, S., & Hoberman, H. (1983). Positive events and social support as buffer of life change stress. *Journal Applied Social Psychology, 13*, 99-125.

- Cohen, S., & Syme, S. L. (1985). Issues in the study and application of social support. In S. Cohen, & S. L. Syme (Eds.), *Social support and health* (pp. 3-22). San Francisco: Academic Press.
- Dick, D. G., Short, R., & Vitaliano, P. P., (1999). Predictor of burden and infectious illness in schizophrenia caregivers. *Psychosomatic Medicine*, *61*, 411-419.
- Denham, S. (2003). *Family health: A framework for nursing*. Philadelphia, PA: F. A. Davis.
- Dunkel-Schetter, C., Folkman, S., & Lazarus, R. S. (1987). Correlates of social support receipt. *Journal of Personality and Social Psychology*, *53*(1), 71-80.
- Dysvik, E., Natvig, G. K., Eikeland, O-J. Lindstrom, T. C. (2005). Coping with chronic pain. *International Journal of Nursing Studies*, *42*, 297-305.
- Fridriksdottir, N., Gudmundsdottir, G., Halfdanardottir, S. I., Jonsdottir, A., Magnusdottir, H., Olafsdottir, K. L. et al. (2010). Unmet needs, quality of life, and symptoms of anxiety and depression among family members of cancer patients [Abstract]. *European Journal of Oncology Nursing*, *14*(1), 1-62.
- Fujino, N., & Okamura, H. (2009). Factors affecting the sense of burden felt by family members caring for patients with mental illness. *Archives of Psychiatric Nursing*, *23*, 128-137.
- Galagher, S. K., & Mechanic, D. (1996). Living with the mentally ill: Effects on the health and functioning of other household members. *Social Science Medicine*, *42*, 1961-1971.
- Grad, J., & Sainbury, P. (1966). Problem of caring for the mentally ill at home. *Proceeding of the Royal Society of Medicine*, *59*(1), 20-23.

- Grandon, P., Jenaro, C., & Lemos, S. (2008). Primary caregivers of schizophrenia outpatients: Burden and predictor variables. *Psychiatry Research, 158*, 335-343.
- Grant, J. S., Elliott, T. R., Weaver, M., Glandon, G. L., Raper, J. L., and Giger, J. N. (2006). Social support, social problem-solving, abilities, and adjustment of family caregivers of stroke survivors. *Archives of Physical Medicine and Rehabilitation, 87*, 343-350.
- Hancock, P. (2001). Rural women earning income in Indonesian factories: The impact of gender relations. *Gender and Development, 9(1)*, 18-24.
- Havens, B. (1999). *Home based and long term care*. Geneva: World Health Organization.
- Helgeson, V. S. (2003). Social support and quality of life. *Quality of Life Research, 12(suppl.1)*, 25-31.
- Hidayat, R. S. (2002). *Women in Indonesia: Between ethnicity and religiosity*. Seminar conducted at the meeting of Women in Asia: Issues and Concerns, Chennai.
- Hilton, A., & Skrutkowski, M. (2002). Translating instruments into other languages: Development and testing process. *Cancer Nursing, 25(1)*, 1-7.
- Hoening, J., & Hamilton, M. W. (1966). The schizophrenic patient in the community and his effect in the household. *International Journal of Social Psychiatry, 12*, 165-176.
- Horikoshi-Roe, H. (1979). Mental illness as a cultural phenomenon: Public tolerance and therapeutic process among the muslim Sundanese in West Java. *Indonesia, 28*, 121-138.

House, J. S., & Khan, R. L. (1985). Measures and concepts of social support. In S. Cohen & S. L. Syme (Eds.), *Social support and health* (pp. 83-108). San Francisco: Academic Press.

House, J. S., Robbin, C., & Metzner, H. (2002). The association of social relationship and activities with mortality: Prospective evidence from the Tecumseh community health study. *American Journal of Epidemiology*, *116*, 123-140.

Hupcey, J. E. (1998). Clarifying the social support theory-research linkage. *Journal of Advanced Nursing*, *27*, 1231-1241.

Indonesia Department of Health and Social Welfare. (2001). *National mental health policy*. Retrieved July 28, 2009, from http://www.searo.who.int/LinkFiles/On-going_projects_Indo_MHP-2001.pdf.

Ivarson, A. B., Sidenvall, B., & Carlsson, M. (2004). The factor structure of the burden assessment scale and the perceived burden of caregivers for individuals with severe mental disorder. *Scandinavian Journal of Caring Sciences*, *18*, 396-401.

Jalowiec, A. (2010, November 5). Overview of Jalowiec coping scale. Message posted to Ref-Links electronic mailing list, archived at <http://id.mc765.mail.yahoo.com>

Jalowiec, A. (2003). The Jalowiec coping scale. In C. F. Waltz, L. S. Jenkins., & O. L. Strickland (Eds), *Measurement of nursing outcomes: Self care and coping* (2nd ed., pp. 71-87). New York, NY: Springer.

Janevic, M. R., & Connell, C. M. (2001). Racial, ethnic, and cultural differences in the dementia caregiving experience: Recent findings. *The Gerontologist*, *41*, 334-347.

- Jungbaueur, J., & Angermeyer, M. C. (2003). Coping strategies in spouses of schizophrenic patients [Abstract]. *Psychotherapie, Psychosomatik, Medizinische Psychologie*, 53, 295-301.
- Juvang, L., Lambert C. E., & Lambert, V. A. (2007). Predictors of family caregiver's burden and quality of life when providing care for a family member with schizophrenia in the people's republic of China. *Nursing and Health Sciences*, 9, 192-198.
- Kaptein, A. A., & Weinman, J. (Eds.). (2004). *Health psychology*. Victoria: Blackwell Publishing.
- Keil, R. M. K. (2004). Coping and stress: A conceptual analysis. *Journal of Advanced Nursing*, 45, 659-665.
- Keogh, E., & Eccleston, C. (2006). Sex differences in adolescent chronic pain and pain-related coping. *Pain*, 123, 275-284.
- Knight, B. G., Fox, L. S., & Chih-Ping, C. (2000). Factors structure of the burden interview. *Journal of Clinical Geropsychology*, 6, 249-258.
- Kristofferzon, M. L., Loffmark, R., & Carisson, M. (2005). Perceived coping, social support, and quality of life 1 month after myocardial infarction: A comparison between Swedish women and men. *Heart & Lung*, 34, 39-50.
- Lazarus, R., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lieberman, J. A., Stroup, T. S., & Perkins, D. O. (2006). *The American psychiatric publishing textbook of schizophrenia*. Arlington, VA: American Psychiatric Publishing.

- Lim, Y. M., & Ahn, Y-H. (2003). Burden of family with schizophrenia patients in Korea. *Applied Nursing Research, 16*, 110-117.
- Linsey, A. M. (1997). Social support: Conceptualization and measurement instruments. In M. Frank-Stromborg & S. J. Olsen, *Instruments for clinical health-care research* (2nd ed., pp. 149-169). London: Jones & Bartlett.
- Ling-Ling, Y., Hai-Gwo, H., Chun-Huoh, C., Chen-Hsin, C., & Wu. (2008). Caregivers of patients with schizophrenia. *Journal of the Formosan Medical Association, 107*, 644-652.
- Lindqvist, R., Carlsson, M., & Sjoden, P. (2000). Coping strategies and styles assessed by the Jalowiec Coping Scale in a random sample of the Swedish population. *Scandinavian Journal of Caring Sciences, 14*, 147-154.
- Looman, W. S., O'Conner, S. K. von, Ferski, G. J., & Hildenbrand, D. A. (2009). Employment problems in families of children with special health care needs: Implication for research and practice. *Journal of Pediatric Care, 23*, 117-125.
- Lopez-Martinez, A. E., Esteva-Zarazaga, R., & Ramirez-Maestra, C. (2008). Perceived social support and coping responses are independent variables explaining pain adjustment among chronic pain patients. *The Journal of Pain, 9*, 373-379.
- Magliano, L., Fadden, G., Economou, M., Held, T., Xavier, M., Guarneri, M., et al. (2000). Family burden and coping strategies in schizophrenia: 1 year follow up data from the BIOMED I study. *Social Psychiatry and Psychiatric Epidemiology, 35*, 109-115.
- Magliano, L., Marasco, C., Fiorillo, A., Malangone, C., Guarneri, M., Maj, M., et al. (2002). The impact of professional and social network support on the burden

of families of patients with schizophrenia in Italia. *Acta Psychiatrica Scandinavica*, 106, 291-298.

Mengdan, L., Lamber C.E, & Lambert V. A. (2007). Caregiver burden and coping pattern of Chinese parents of a child with mental illness. *International Journal Mental Health Nursing*, 16, 86-95.

Mental Health Research Association. (2006). *What is schizophrenia?*. Retrieved July 28, 2009, from <http://www.schizophrenia.com>.

Moller, M. D. (2005). Neurobiological responses and schizophrenia and psychotic disorder. In G. W. Stuart, & M. T. Laraia (Eds.), *Principles and practice of psychiatric nursing* (pp. 386-415). St. Louis, MO: Mosby.

Moller-Leimkuhler, A. M., & Obermeier, M. (2008). Predicting caregiver burden in first admission psychiatric patients. *European Archives of Psychiatry and Clinical Neuroscience*, 258, 406-413.

Montgomery, R. J. V. (n.d.). *Using and interpreting the Montgomery Borgotta caregiver burden scale*. Retrieved December 12, 2010, from [http://www4.edu/hbssw/pdf/burden Scale.pdf](http://www4.edu/hbssw/pdf/burden%20Scale.pdf).

Montgomery. R. J. V., Gonyea, J. G., & Hooyman, N. R. (1985). Caregiving and the experience of subjective and objective burden. *Family Relation*, 34, 19-26.

Munro, B. H. (2001). *Statistical methods for health care research* (4th ed.). Philadelphia, PA: Lippincott William & Wilkins.

Niehof, A. (1998). The changing lives of Indonesian women: Contained emancipation under pressure. *Leiden*, 2, 236-258.

Nursing Department of West Java Province Mental Hospital. (2009). *Annual data report*. Cimahi: Author.

- Okasha, A. (2007). The individual versus the family: An Islamic and traditional societies perspective. In J. Cox., A. V. Campbell, & B. Fulford (Eds.), *Medicine of the person* (pp. 110-124). Philadelphia, PA: Jessica Kingsley.
- Ortega, A. N., & Alegria, M. (2002). Self-reliance, mental health need, and the use of mental health care among Island Puerto Ricans. *Mental Health Services Research, 4*, 131-140.
- Panzarella, C., Alloy, L. B., & Whitehouse, W. G. (2006). Expanded hopelessness theory of depression: On the mechanisms by which social support protects against depression. *Cognitive Therapy and Research, 30*, 307-333.
- Paster, A., Bradwein, D., & Walsh, J. (2009). A comparison of coping strategies used by parents of children with disabilities and parents of children without disabilities. *Research in Developmental Disabilities, 30*, 1337-1342.
- Perlick, D. A., Rosenheck, R. A., Kaczynski, R., Swartz, M. S., Canive, J. M., & Lieberman, J. A. (2006). Components and correlates of family burden in schizophrenia. *Psychiatric Services, 57*, 1117-1125.
- Pi-Ming, Y., Wierenga, M., E., & Su-Chuan, Y. (2009). Influences of psychological well-being, quality of caregiver-patient relationship, and family support on the health of family caregivers for cancer patients in Taiwan. *Asian Nursing Research, 3*, 154-166.
- Platt, S. (1985). Measuring the burden of psychiatric illness on the family: An evaluation of some rating scales. *Psychology Medicine, 15*, 383-393.
- Polit, D. F., & Beck, C. T. (2008). *Nursing research: Generating and assessing evidence for nursing practice* (8th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

- Pompili, M., Lester, D., Grisпинi, A., Innamorati, M., Calandro, F., Iliceto, P., et al. (2009). Completed suicide in schizophrenia: Evidence from a case-control study. *Psychiatry Research, 167*, 251-257.
-
- Rafiyah, I., & Suttharangsee, W. (2011). Review: Burden on family caregivers caring for patients with schizophrenia and its related factors. *Nurse Media Journal of Nursing, 1(1)*, 29-41.
- Ramirez-Maestro, C., Esteva, R., & Lopez, A. E. (2008). Cognitive appraisal and coping in chronic pain patients. *European Journal of Pain, 12*, 749-756.
- Rassool, G. H. (2000). The crescent and Islam: Healing, nursing, and the spiritual dimension. Some considerations towards an understanding of the Islamic perspectives on caring. *Journal of Advanced Nursing, 32*, 1476-1484.
- Reinhard, S. C., Gubman, G. D., Horwitz, A. P., & Minsky, S. (1994). Burden assessment scale for seriously mentally ill [Abstract]. *Evaluation and Program Planning, 17*, 261-269.
- Roick, C., Heider, D., Bebbinton, P. E., Angermeyer, M. C., Azorin, J. M., Brugha, T. S., et al. (2007). Burden on caregivers of people with schizophrenia: Comparison between Germany and Britain. *British Journal of Psychiatry, 190*, 333-338.
- Roick, C., Heider, D., Toumi, M., & Angermeyer, M. C. (2006). The impact of caregiver's characteristics, patient's conditions and regional differences on family burden in schizophrenia: A longitudinal analysis. *Acta Psychiatrica Scandinavica, 114*, 363-374.
- Sarwono, S., W. (n.d). *Indonesia*. Retrieved January 27, 2011, from http://sarlito.hyperphp.com/docs/indonesian_families.pdf.

- Schneider, M., Steele, R., Cadell, S., & Hemsworth, D. (2010). Differences on psychosocial outcomes between male and female caregivers of children with life-limiting illness. *Journal of Pediatric Nursing, 30*, 1-14.
- Sefasi, A., Crumlish, N, Samalani, P, Kinsella, A, & O'Callaghan, E. (2008). A little knowledge: Caregiver burden in schizophrenia in Malawi. *Social Psychiatry and Psychiatric Epidemiology, 42*, 160-164.
- Setsuko, H., Goro, T., Hiroyuki, I., Minoru, U., & Yasuyuki, O. (2008). Burden and coping strategies in mothers of patients with schizophrenia in Japan. *Psychiatry and Clinical Neurosciences, 62*, 256-263.
- Sharer, V. W., & Ryan-Wenger N. M. (1995). A longitudinal study of age and gender differences of stressor and coping strategies in school-aged children. *Journal of Pediatric Health Care, 9*, 123-130.
- Shiow-Jing, W., Cooke, M., Moyle, W., & Creedy, D. (2010). Health education needs of family caregivers supporting an adolescent relative with schizophrenia or a mood disorder in Taiwan. *Archives of Psychiatric Nursing, 24*, 418-428.
- Shu-Ying, H., Chiao-Li, K. K., Yi-Ching, S., For-Wey, L., & Chun-Jen, H. (2008). Exploring the burden of the primary family caregivers of schizophrenia patients in Taiwan. *Psychiatry and Clinical Neurosciences, 62*, 508–514.
- Spurlock, W. R. (2005). Spiritual well being and caregiver burden in Alzheimer's caregivers. *Geriatric Nursing, 26*, 154-61.
- Suryani, E. (n.d). *Pandangan hidup orang sunda* (Sundanese philosophy). Retrieved January, 18, 2011, from http://resources.unpad.ac.id/unpad-content/uploads/publikasi_dosen/Adat&PandanganHidupOrangSunda.pdf.

- Tak, Y. R., & McCubbin, M. (2002). Family stress, perceived social support, and coping following the diagnosis of a child's congenital heart disease. *Journal of Advanced Nursing, 39*, 190-198.
- Tang, V. W. K., Leung, S. K., & Lam, L. C-W. (2008). Clinical correlates of the caregiving experience for Chinese caregivers of patients with schizophrenia. *Social Psychiatry and Psychiatric Epidemiology, 43*, 720-726.
- Taub, A., Andreoli, S. B., & Bertolucci, P. H. (2004). Dementia caregiver burden: Reliability of the Brazilian version of the Zarit caregiver burden interview. *Cadernos de Saude Publica, 20*, 372-376.
- Townsend, M. C. (2006). *Psychiatric Mental Health Nursing: Concept of care in evidence based practice* (5th ed). Philadelphia, PA: F. A. Davis.
- Upah minimum propinsi (UMP) 2011 naik (Province minimum wage 2011 increases). (2011). Retrieved May 2, 2011, from <http://www.gajimu.com/main/Gaji-Minimum/ump-2011>.
- Vanaleesin, S., Suttharangsee, W., & Hatthakit. U. (2007). Cultural aspects of care for muslim schizophrenic patients: An ethnonursing study. *Songklanagarind Medical Journal, 25*, 361-370.
- Valle, R., Yamada, A. M., & Barrio, C. (2004). Ethnic differences in social network helping-seeking strategies among Latino and Euro-American dementia caregivers. *Aging & Mental Health, 8*, 535-543.
- Vivera, J., Hubbard, A., Vesely, A., & Papezova, H. (2005). Violent behaviour in schizophrenia. *British Journal of Psychiatry, 187*, 426-430.

- Wai-Tong, C., Chan, S., W., C. & Morrisey, J. (2007). The perceived burden among Chinese family caregivers of people with schizophrenia. *Journal of Clinical Nursing, 16*, 1151-1161.
- Watkins, K. W., Shifren, K., Park, D. C., & Morrell, R. W. (1998). Age, pain, coping with rheumatoid arthritis. *Pain, 82*, 217-228.
- Wegmann, J. A. (1997). Measuring coping. In M. Frank-Stromborg & S. J. Olsen (Eds.), *Instruments for clinical health-care research* (2nd ed., pp. 177-188). London: Jones and Bartlett.
- World Health Organization. (1998). *Schizophrenia and public health*. Geneva: WHO.
- Xuan-Yi, H., Sun, Fan-Ko, S., Wen-Jiuan, Y., & Chow-Mei, F. (2008). The coping experiences of carers who live with someone who has schizophrenia. *Journal of Clinical Nursing, 17*, 817-827.
- Ying, L. (in press). A longitudinal study of family conflicts, social support, and antenatal depressive symptoms among Chinese women. *Archives of Psychiatric Nursing*.
- Zarit, S. H. (2010, July 29). Scaling and scoring of the Zarit burden Interview. Message posted to Ref-Links electronic mailing list, archived at <http://id.mc765.mail.yahoo.com>.
- Zevalkink, J., Riksen-Walraven, J. M., & Lieshout, C. F. M. Van. (1999). Attachment in Indonesian caregiving context. *Social Development, 8(1)*, 21-40.

APPENDIXES

APPENDIX A

INFORMED CONSENT FORM

My name is **Imas Rafiyah**. I am an educator nurse in the Faculty of Nursing, Padjadjaran University of Indonesia who is studying in a Master Degree of Nursing Science in the Faculty of Nursing, Prince of Songkla University, Thailand.

Now, I am conducting a study about **social support, coping, and burden of family caregivers caring for persons with schizophrenia**. This study is expected to contribute improving the quality of care of family caregivers caring for persons with schizophrenia and provide useful information for future research related to this area. This study has been approved by the Institutional Review Board of Prince of Songkla University, Thailand and also has been granted permission by the West Java Province Mental Hospital.

Based on the criteria of the sample which has been determined, you as a family caregiver need to meet the following requirements to be eligible for this study: who aged at least 18 years old, lives with the person being cared for, has provided full time assistance voluntarily for at least six months, and is able to communicate in Indonesian language. There is neither cost nor payment for your participation. In addition, the study procedures will not induce risk or harm. You are only expected to respond to the questions about your personal information, coping strategy used, perceived social support, and the burden felt while caring for persons with schizophrenia. It should take approximately 30-60 minutes to complete the questionnaires.

All information and your responses in this study will remain confidential and anonymous, and will only be accessible by the researcher, research advisor and research committee. Your name or any identifying information will not be used in the reports.

Your participation in this study is voluntarily. Signing your name on the consent form or returning the forms indicate that you understand what is involved and your consent to participate in this study. You have the right to withdraw from participating in this study at any time. Your decision will not influence the health service provided or medical treatment.

Lastly, if you have any questions, suggestions, or cannot participate in this study, you can contact me directly. Thank you for your kind cooperation.

Cimahi,

Participant

Researcher

(.....)

(Imas Rafiyah)

If you have any inquiries, please contact:

Researcher : Imas Rafiyah

Office Address : Faculty of Nursing, Padjadjaran University, Indonesia
Jl. Raya Bandung-Sumedang KM 21 Jatinangor, Sumedang, Indonesia
Telp. (+62)(022)7795596, fax: (022) 7795596
Mobile phone: (+62)824343305

School Address : Master of Nursing Science Program, Faculty of Nursing,
Prince of Songkla University, Hat Yai, Thailand
Telp : (074) 213060 extension 5209

Advisor : Assoc. Prof. Dr. Wandee Suttharangsee.
Office Address : Departemnt of Psychitric Nursing, Faculty of Nursing,
Prince of Songkla University, Hat Yai, Thailand
Telp: 0897385050

Co-advisor : Dr. Hathairat Sangchan
Office Address : Department of Surgical Nursing, Faculty of Nursing,
Prince of Songkla University, Hat Yai, Thailand
Telp: 0818975223

APPENDIX B
INSTRUMENTS

Part 1: Demographic Data Form

Code:

Date :

Please answer these questions by marking (√) in the space available or filling in the blank space that is appropriate for you.

I. Demographic characteristics

1. Age :years
2. Gender : 1 man 2 woman
3. Ethnic : 1 Sundanese 2Javanese 3Other.....
4. Address:
5. Religion : 1 Islam 2 Christian 3other.....
6. Marital status : 1 single 2 married 3 widow/widower
7. Educational level:

| | | |
|--|---------------------------------------|---|
| 1 <input type="checkbox"/> no formal education | 2 <input type="checkbox"/> elementary | 3 <input type="checkbox"/> junior high school |
| 4 <input type="checkbox"/> senior high school | 5 <input type="checkbox"/> graduate | |
8. Occupation:

| | | |
|---|--|---------------------------------------|
| 1 <input type="checkbox"/> no occupation | 2 <input type="checkbox"/> government employee | |
| 3 <input type="checkbox"/> private employee | 4 <input type="checkbox"/> farmer | 5 <input type="checkbox"/> trader |
| 6 <input type="checkbox"/> housewife | 7 <input type="checkbox"/> retired | 8 <input type="checkbox"/> other..... |
9. Income per month:

| | | |
|---|---|--|
| 1 <input type="checkbox"/> none | 2 <input type="checkbox"/> <500,000 | |
| 3 <input type="checkbox"/> Rp 500,000-1,000,000 | 4 <input type="checkbox"/> Rp 1,000,000-2,000,000 | |
| 5 <input type="checkbox"/> > Rp 2,000,000 | | |
10. Income satisfaction:

| | | |
|---|-------------------------------------|--|
| 1 <input type="checkbox"/> more than adequate | 2 <input type="checkbox"/> adequate | 3 <input type="checkbox"/> in adequate |
|---|-------------------------------------|--|
11. How many family members live in your household:persons

II. Health characteristics related to a mentally ill member

1. The mentally ill member's age:years
2. The mentally ill member's gender: male female
3. Frequency of hospitalization during illness:times
4. Frequency of visiting a doctor:
 - every week every month other.....
5. Severity of the disease perceived by you:
 - mild moderate severe
6. The mentally ill member's behavior making you worried the most:
 - violent hallucination
 - withdrawal no behavior making worry
 - aggressive loafing around other.....

III. Caregiving

1. Your relationship with the mentally ill member:
 - father mother husband
 - wife relatives children others.....
2. Duration providing care:.....years
3. Time spent each day for caring:
 - half day time full day time day time and night time
4. Other ill family members that need to be taken care of:
 - no yes, how many:persons, diagnosis.....
5. Do you have a chronic disease? :
 - yes: (Hypertension Asthma Diabetes other.....)
 - no
6. Significant others who help you in caring for the mentally ill member:
 - children relative friends
 - no one husband/wife other.....

Part 2: Perceived Social Support Questionnaire (PSSQ)

Direction:

The following is a reading of statements which reflect how you perceive social support that you receive while caring for the mentally ill member. Then, please circle (O) or (X) a number from 0 (never) to 3 (often) in the column that is most close to you.

| Statements | Dimension | Never | Seldom | Sometimes | Often |
|--|-----------|-------|--------|-----------|-------|
| 1. My relatives visited me when I got into trouble in caring for the mentally ill member | Em | 0 | 1 | 2 | 3 |
| 2. My neighbors isolated me because I had the mentally ill member* | Em | 3 | 2 | 1 | 0 |
| 3. My family listened to my express feelings in regard to caring for the mentally ill member | Em | 0 | 1 | 2 | 3 |
| 4. My family or relatives prayed for me to get blessing from God due to doing noble duties in caring for the mentally ill member | Em | 0 | 1 | 2 | 3 |
| 5. My family or relatives concerned with my problems in regard to caring for the mentally ill member | Em | 0 | 1 | 2 | 3 |
| 6. Nobody gives me direction how to overcome behaviors of the mentally ill member * | Inf | 3 | 2 | 1 | 0 |
| 7. My relatives or friends gave me suggestions to deal with problems while caring for the mentally ill member | Inf | 0 | 1 | 2 | 3 |
| 8. My relatives or my friends give me information about financial aid, such as health insurance | Inf | 0 | 1 | 2 | 3 |
| 9. Nobody gives me information related to mental illness (such as causes, signs and symptoms of schizophrenia)* | Inf | 3 | 2 | 1 | 0 |
| 10. My family or my relatives accompanied the mentally ill member for medical check-ups when I was sick or busy | Ins | 0 | 1 | 2 | 3 |
| 11. In emergency situations, my relatives provided transportation to take the mentally ill member to a hospital | Ins | 0 | 1 | 2 | 3 |

Note. Em = emotional, Inf = information, Ins = Instrumental, Ap = appraisal, * negative statements.

Part 2: Perceived Social Support Questionnaire (PSSQ)(continued)

| Statements | Dimension | Never | Seldom | Sometimes | Often |
|---|-----------|-------|--------|-----------|-------|
| 12. I got help when the mentally ill member suddenly showed aggressive behavior | Ins | 0 | 1 | 2 | 3 |
| 13. I had difficulties to get a loan to fulfill needs of the mentally ill member * | Ins | 3 | 2 | 1 | 0 |
| 14. My family or relatives gave little money to fulfill needs of the mentally ill member | Ins | 0 | 1 | 2 | 3 |
| 15. My relatives helped me in caregiving for the mentally ill member | Ins | 0 | 1 | 2 | 3 |
| 16. My family took care of the mentally ill member when I needed a break | Ins | 0 | 1 | 2 | 3 |
| 17. My family created conflict with me in regard to caring for the mentally ill member * | Ins | 3 | 2 | 1 | 0 |
| 18. My family or my relatives were proud of my effort while caring for the mentally ill member | Ap | 0 | 1 | 2 | 3 |
| 19. My family or my relatives blamed me by telling that I did not care well for the mentally ill member * | Ap | 3 | 2 | 1 | 0 |
| 20. My relatives or my neighbors told me that I was tested by God with having the mentally ill member | Ap | 0 | 1 | 2 | 3 |

Note. Em = emotional, Inf = information, Ins = Instrumental, Ap =appraisal, * negative statements.

Part 3: Revised Jalowiec Coping Scale (JCS)

Direction:

Please circle a number from 0 (=never used) to 3(=often used) to show how often you use the following ways to cope with stressful situation regarding caring for the mentally ill member. Then, circle (O) or (X) in the column that most close to you.

| Statements | Dimension | Never | Seldom | Sometimes | Often |
|--|-----------|-------|--------|-----------|-------|
| 1. Worried about the problem | Em | 0 | 1 | 2 | 3 |
| 2. Hoped that things would get better | Op | 0 | 1 | 2 | 3 |
| 3. Ate or smoke more than usual | Pa | 0 | 1 | 2 | 3 |
| 4. Thought out different ways to handle the situation | Co | 0 | 1 | 2 | 3 |
| 5. Told yourself that things could be much worse | Op | 0 | 1 | 2 | 3 |
| 6. Exercise or did some physical activity | Pa | 0 | 1 | 2 | 3 |
| 7. Tried to get away from the problem for a while | Ev | 0 | 1 | 2 | 3 |
| 8. Got mad and let off steam | Em | 0 | 1 | 2 | 3 |
| 9. Expected the worst that could happen | Fa | 0 | 1 | 2 | 3 |
| 10. Tried to put problem out of your mind and think of something else | Ev | 0 | 1 | 2 | 3 |
| 11. Talked the problem over with family or friends | Su | 0 | 1 | 2 | 3 |
| 12. Accepted that situation because very little could be done | Fa | 0 | 1 | 2 | 3 |
| 13. Tried to look at the problem objectively and see all sides | Co | 0 | 1 | 2 | 3 |
| 14. Daydreamed about a better life | Ev | 0 | 1 | 2 | 3 |
| 15. Talked the problem over with a professional person (such as doctor, nurses, counselor) | Su | 0 | 1 | 2 | 3 |
| 16. Tried to keep the situation under control | Co | 0 | 1 | 2 | 3 |
| 17. Prayed or put your trust in god | Su | 0 | 1 | 2 | 3 |
| 18. Tried to get out of the situation | Ev | 0 | 1 | 2 | 3 |
| 19. Kept your feeling to yourself | Se | 0 | 1 | 2 | 3 |
| 20. Told yourself that the problem was someone else's fault | Ev | 0 | 1 | 2 | 3 |
| 21. Waited to see what would happen | Ev | 0 | 1 | 2 | 3 |
| 22. Wanted to be alone to think things out | Se | 0 | 1 | 2 | 3 |
| 23. Resign yourself to the situation because things looked hopeless | Fa | 0 | 1 | 2 | 3 |

Note. Co = Confrontative, Ev = evasive, Op = optimistic, Fa = fatalistic, Em=emotive, Pa = palliative, Su = supportant, Se = self-reliant.

Part 3: Revised Jalowiec Coping Scale (JCS) (continued)

| | Statements | Dimension | Never | Seldom | Sometimes | Often |
|-----|---|-----------|-------|--------|-----------|-------|
| 24. | Took out your tensions on someone else | Em | 0 | 1 | 2 | 3 |
| 25. | Tried to change the situation | Co | 0 | 1 | 2 | 3 |
| 26. | Used relaxation technique, such as dzikir | Pa | 0 | 1 | 2 | 3 |
| 27. | Tried to find out more about the problem. | Co | 0 | 1 | 2 | 3 |
| 28. | Slept more than usual | Ev | 0 | 1 | 2 | 3 |
| 29. | Tried to handle things one step at a time | Co | 0 | 1 | 2 | 3 |
| 30. | Tried to keep your life as normal as possible and not let the problem interfere | Op | 0 | 1 | 2 | 3 |
| 31. | Thought about how you had handled other problems in the past | Se | 0 | 1 | 2 | 3 |
| 32. | Told yourself not to worry because everything would work out fine | Op | 0 | 1 | 2 | 3 |
| 33. | Tried to work out a compromise | Co | 0 | 1 | 2 | 3 |
| 34. | Took a drink to make yourself feel better | Pa | 0 | 1 | 2 | 3 |
| 35. | Let time take care of the problem | Ev | 0 | 1 | 2 | 3 |
| 36. | Tried to distract yourself by doing something that you enjoy | Pa | 0 | 1 | 2 | 3 |
| 37. | Told yourself that you could handle anything no matter how hard | Se | 0 | 1 | 2 | 3 |
| 38. | Set up a plan of action | Co | 0 | 1 | 2 | 3 |
| 39. | Tried to keep a sense of humor | Op | 0 | 1 | 2 | 3 |
| 40. | Put off facing up to the problem | Ev | 0 | 1 | 2 | 3 |
| 41. | Tried to keep your feeling under control | Se | 0 | 1 | 2 | 3 |
| 42. | Talked the problem over with someone who had been in a similar situation | Su | 0 | 1 | 2 | 3 |
| 43. | Practiced in your mind what had to be done | Co | 0 | 1 | 2 | 3 |
| 44. | Tried to keep busy | Pa | 0 | 1 | 2 | 3 |
| 45. | Learned something new in order to deal with the problem better | Co | 0 | 1 | 2 | 3 |
| 46. | Did something impulsive or risky that you would not usually do | Em | 0 | 1 | 2 | 3 |
| 47. | Thought about the good things in your life | Op | 0 | 1 | 2 | 3 |

Note. Co = Confrontative, Ev = evasive, Op = optimistic, Fa = fatalistic, Em = emotive, Pa = palliative, Su = supportant, Se = self-reliant.

Part 3: Revised Jalowiec Coping Scale (JCS) (continued)

| | Statements | Dimension | Never | Seldom | Sometimes | Often |
|-----|--|-----------|-------|--------|-----------|-------|
| 48. | Tried to ignore or avoid the problem | Ev | 0 | 1 | 2 | 3 |
| 49. | Compared yourself with other people who were in the same situation | Op | 0 | 1 | 2 | 3 |
| 50. | Tried to think positively | Op | 0 | 1 | 2 | 3 |
| 51. | Blamed yourself for getting into such a situation | Em | 0 | 1 | 2 | 3 |
| 52. | Preferred to work things out yourself | Se | 0 | 1 | 2 | 3 |
| 53. | Took medication to reduce tension | Pa | 0 | 1 | 2 | 3 |
| 54. | Tried to see the good side of the situation | Op | 0 | 1 | 2 | 3 |
| 55. | Told yourself that this problem was really not that important | Ev | 0 | 1 | 2 | 3 |
| 56. | Avoided being with people | Ev | 0 | 1 | 2 | 3 |
| 57. | Tried to improve yourself in some way so you could handle the situation better | Se | 0 | 1 | 2 | 3 |
| 58. | Wished that the problem would go away | Ev | 0 | 1 | 2 | 3 |
| 59. | Dependent on others to help you out | Su | 0 | 1 | 2 | 3 |
| 60. | Told yourself that you were just having some bad luck | Fa | 0 | 1 | 2 | 3 |

Note. Co = Confrontative, Ev = evasive, Op = optimistic, Fa = fatalistic, Em = emotive, Pa = palliative, Su = supportant, Se = self-reliant.

If there are any other things you did to handle the stress mentioned at the beginning, that are not this list, please write those coping strategies in the space below. Then circle how often you have used each coping strategies.

| No | Statements | Never | Seldom | Sometimes | Often |
|----|------------|-------|--------|-----------|-------|
| | | | | | |

Part 4: Zarit Burden Interview (ZBI)

Direction:

The following is a reading of statements which reflect how a family caregiver feels when taking care for a person with schizophrenia. After each statement, indicate how often you feel that way; never, rarely, sometimes, quite frequently, or nearly always. There are no right or wrong answers.

| Statements | Dimension | Never | Rarely | Sometimes | Quite frequently | Nearly always |
|---|-----------|-------|--------|-----------|------------------|---------------|
| 1. Do you feel that your relative asks more help than he/she needs? | Re | 0 | 1 | 2 | 3 | 4 |
| 2. Do you feel that because of the time you spend with your relative you don't have enough time for yourself? | Re | 0 | 1 | 2 | 3 | 4 |
| 3. Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work? | Em | 0 | 1 | 2 | 3 | 4 |
| 4. Do you feel embarrassed over your relative's behavior? | Em | 0 | 1 | 2 | 3 | 4 |
| 5. Do you feel angry when you are around your relative? | Em | 0 | 1 | 2 | 3 | 4 |
| 6. Do you feel that your relative currently affects your relationships with other family members or friends in a negative ways? | So | 0 | 1 | 2 | 3 | 4 |
| 7. Are you afraid what the future hold for your relative? | Em | 0 | 1 | 2 | 3 | 4 |
| 8. Do you feel your relative is dependent on you? | Re | 0 | 1 | 2 | 3 | 4 |
| 9. Do you feel strained when you are around your relative? | Em | 0 | 1 | 2 | 3 | 4 |
| 10. Do you feel your health has suffered because of your involvement with your relative? | Lo | 0 | 1 | 2 | 3 | 4 |

Note. Re = burden in the relationship, Em = emotional well being, So = social and family life, Fi = financial, Lo = Loss of control over one's life.

Part 4: Zarit Burden Interview (ZBI) (continued)

| | Statements | Dimension | Never | Rarely | Sometimes | Quite frequently | Nearly always |
|-----|---|-----------|-------|--------|-----------|------------------|---------------|
| 11. | Do you feel that you don't have as much privacy as you would like, because of your relative? | So | 0 | 1 | 2 | 3 | 4 |
| 12. | Do you feel that your social life has suffered because you are caring for your relative? | So | 0 | 1 | 2 | 3 | 4 |
| 13. | Do you feel uncomfortable about having friends over, because of relative? | So | 0 | 1 | 2 | 3 | 4 |
| 14. | Do you feel that your relative seems to expect you to take care of him/her, as if you were the only one he/she could depend on? | Re | 0 | 1 | 2 | 3 | 4 |
| 15. | Do you feel that you don't have enough money to take care for your relative, in addition to the rest of your expenses? | Fi | 0 | 1 | 2 | 3 | 4 |
| 16. | Do you feel that you will be unable to take care of your relative much longer? | Lo | 0 | 1 | 2 | 3 | 4 |
| 17. | Do you feel you have lost control of your life since your relative's illness? | Lo | 0 | 1 | 2 | 3 | 4 |
| 18. | Do you wish you could just leave the care of your relative to someone else? | Lo | 0 | 1 | 2 | 3 | 4 |
| 19. | Do you feel uncertain about what to do about your relative? | Em | 0 | 1 | 2 | 3 | 4 |
| 20. | Do you feel you should be doing more for your relative? | Re | 0 | 1 | 2 | 3 | 4 |
| 21. | Do you feel you could do a better job in caring for your relative? | Re | 0 | 1 | 2 | 3 | 4 |
| 22. | Overall, how burdened do you feel in caring for your relative? | Em | 0 | 1 | 2 | 3 | 4 |

Note. Re = burden in the relationship, Em = emotional well being, So = social and family life, Fi = financial, Lo = Loss of control over one's life.

APPENDIX C

TABLES

Perceived Social Support Questionnaire (PSSQ)

Table C1

Distribution of Percentage of Social Support (N = 88)

| Social Support Items | Dimension | Percentage | | | |
|--|-----------|------------|--------|-----------|-------|
| | | Never | Seldom | Sometimes | Often |
| 1. My relatives visited me when I got into trouble in caring for the mentally ill member | Em | 22.7 | 17.0 | 34.1 | 26.1 |
| 2. My neighbors isolated me because I had the mentally ill member* | Em | 45.5 | 20.5 | 22.7 | 11.4 |
| 3. My family listened to my express feelings in regard to caring for the mentally ill member | Em | 14.8 | 18.2 | 47.7 | 19.3 |
| 4. My family or relatives prayed for me to get blessing from God due to doing noble duties in caring for the mentally ill member | Em | 5.7 | 5.7 | 26.1 | 62.5 |
| 5. My family or relatives concerned with my problems in regard to caring for the mentally ill member | Em | 11.4 | 13.6 | 44.3 | 30.7 |
| 6. Nobody gave me direction how to overcome behaviors of the mentally ill member * | Inf | 20.5 | 21.6 | 44.3 | 13.6 |
| 7. My relatives or friends gave me suggestions to deal with problems while caring for the mentally ill member | Inf | 15.9 | 13.6 | 45.5 | 25.0 |
| 8. My relatives or my friends give me information about financial aid, such as health insurance | Inf | 17.0 | 25.0 | 43.2 | 14.8 |
| 9. Nobody gives me information related to mental illness (such as causes, signs and symptoms of schizophrenia)* | Inf | 20.5 | 23.9 | 42.0 | 13.6 |
| 10. My family or my relatives accompanied the mentally ill member for medical check-ups when I was sick or busy | Ins | 46.6 | 14.8 | 22.7 | 15.9 |

Note. Em = emotional, Inf = information, Ins = Instrumental, Ap = Appraisal, *negative statements.

Table C1 (continued)

| Social Support Items | Dimension | Percentage | | | |
|---|-----------|------------|--------|-----------|-------|
| | | Never | Seldom | Sometimes | Often |
| 11. In emergency situations, my relatives provided transportation to take the mentally ill member to a hospital | Ins | 58.0 | 13.6 | 13.6 | 14.8 |
| 12. I got help when the mentally ill member suddenly showed aggressive behavior | Ins | 17.0 | 18.2 | 34.1 | 30.7 |
| 13. I had difficulties to get a loan to fulfill needs of the mentally ill member * | Ins | 23.9 | 8.0 | 33.0 | 35.2 |
| 14. My family or relatives gave little money to fulfill needs of the mentally ill member | Ins | 39.8 | 21.6 | 28.4 | 10.2 |
| 15. My relatives helped me in caregiving for the mentally ill member | Ins | 28.4 | 13.6 | 31.8 | 26.1 |
| 16. My family took care of the mentally ill member when I needed a break | Ins | 27.3 | 19.3 | 33.0 | 20.5 |
| 17. My family created conflict with me in regard to caring for the mentally ill member * | Ins | 58.0 | 20.5 | 18.2 | 3.4 |
| 18. My family or my relatives were proud of my effort while caring for the mentally ill member | Ap | 31.8 | 17.0 | 25.0 | 26.1 |
| 19. My family or my relatives blamed me by telling that I did not care well for the mentally ill member * | Ap | 61.4 | 15.9 | 20.5 | 2.3 |
| 20. My relatives or my neighbors told me that I was tested by God with having the mentally ill member | Ap | 33.0 | 47.7 | 11.4 | 8.0 |

Note. Em = emotional, Inf = information, Ins = Instrumental, Ap = Appraisal, *negative statements.

Revised Jalowiec Coping Scale (JCS)

Table C2

Distribution of Percentage of Coping Strategies (N = 88)

| Coping Items | Dimension | Percentage | | | |
|--|-----------|------------|--------|-----------|-------|
| | | Never | Seldom | Sometimes | Often |
| 1. Worried about the problem | Em | 10.2 | 5.7 | 52.3 | 31.8 |
| 2. Hoped that things would get better | Op | 3.4 | 3.4 | 38.6 | 54.5 |
| 3. Ate or smoke more than usual | Pa | 60.2 | 11.4 | 19.3 | 9.1 |
| 4. Thought out different ways to handle the situation | Co | 10.2 | 22.7 | 42.0 | 25.0 |
| 5. Told yourself that things could be much worse | Op | 20.5 | 8.0 | 55.7 | 15.9 |
| 6. Exercise or did some physical activity | Pa | 12.5 | 10.2 | 52.3 | 25.0 |
| 7. Tried to get away from the problem for a while | Ev | 15.9 | 5.7 | 48.9 | 29.5 |
| 8. Got mad and let off steam | Em | 27.3 | 23.9 | 43.2 | 5.7 |
| 9. Expected the worst that could happen | Fa | 58.2 | 19.3 | 54.5 | 8.0 |
| 10. Tried to put problem out of your mind and think of something else | Ev | 9.1 | 11.4 | 38.6 | 40.9 |
| 11. Talked the problem over with family or friends | Su | 17.0 | 15.9 | 34.1 | 33.0 |
| 12. Accepted that situation because very little could be done | Fa | 5.7 | 4.5 | 17.0 | 72.7 |
| 13. Tried to look at the problem objectively and see all sides | Co | 3.4 | 23.9 | 48.9 | 23.9 |
| 14. Daydreamed about a better life | Ev | 17.0 | 14.8 | 53.4 | 14.8 |
| 15. Talked the problem over with a professional person (such as doctor, nurses, counselor) | Su | 12.5 | 35.2 | 30.7 | 21.6 |
| 16. Tried to keep the situation under control | Co | 3.4 | 40.9 | 31.8 | 23.9 |
| 17. Prayed or put your trust in god | Su | - | - | 5.7 | 94.3 |
| 18. Tried to get out of the situation | Ev | 15.9 | 5.7 | 50.0 | 28.4 |
| 19. Kept your feeling to yourself | Se | 15.9 | 26.1 | 37.5 | 20.5 |
| 20. Told yourself that the problem was someone else's fault | Ev | 76.1 | 8.0 | 14.8 | 1.1 |
| 21. Waited to see what would happen | Ev | 25.0 | 8.0 | 23.9 | 43.2 |
| 22. Wanted to be alone to think things out | Se | 23.9 | 10.2 | 48.9 | 17.0 |

Note. Co = Confrontative, Ev = evasive, Op = optimistic, Fa = fatalistic, Em = emotive, Pa = palliative, Su = supportant, Se = self-reliant.

Table C2 (continued)

| Coping Items | Dimension | Percentage | | | |
|---|-----------|------------|--------|-----------|-------|
| | | Never | Seldom | Sometimes | Often |
| 23. Resign yourself to the situation because things looked hopeless | Fa | 38.6 | 15.9 | 37.5 | 8.0 |
| 24. Took out your tensions on someone else | Em | 46.6 | 14.8 | 13.6 | 25.0 |
| 25. Tried to change the situation | Co | 9.1 | 37.5 | 33.0 | 20.5 |
| 26. Used relaxation technique, such as dzikir | Pa | 4.5 | 4.5 | 36.4 | 54.5 |
| 27. Tried to find out more about the problem. | Co | 10.2 | 28.4 | 36.4 | 25.0 |
| 28. Slept more than usual | Ev | 35.2 | 36.4 | 22.7 | 5.7 |
| 29. Tried to handle things one step at a time | Co | 9.1 | 44.3 | 21.6 | 25.0 |
| 30. Tried to keep your life as normal as possible and not let the problem interfere | Op | 1.1 | 2.3 | 26.1 | 70.5 |
| 31. Thought about how you had handled other problems in the past | Se | 5.7 | 19.3 | 52.3 | 22.7 |
| 32. Told yourself not to worry because everything would work out fine | Op | 5.7 | 14.8 | 51.1 | 28.4 |
| 33. Tried to work out a compromise | Co | 3.4 | 17.0 | 37.5 | 42.0 |
| 34. Took a drink to make yourself feel better | Pa | 95.5 | 3.4 | | 1.1 |
| 35. Let time take care of the problem | Ev | 9.1 | 8.0 | 30.7 | 52.3 |
| 36. Tried to distract yourself by doing something that you enjoy | Pa | 3.4 | 9.1 | 58.0 | 29.5 |
| 37. Told yourself that you could handle anything no matter how hard | Se | 1.1 | 1.1 | 51.1 | 46.6 |
| 38. Set up a plan of action | Co | 30.7 | 37.5 | 9.1 | 22.7 |
| 39. Tried to keep a sense of humor | Op | 2.3 | 18.2 | 55.7 | 23.9 |
| 40. Put off facing up to the problem | Ev | 33.0 | 29.5 | 31.8 | 5.7 |
| 41. Tried to keep your feeling under control | Se | 1.1 | 5.7 | 44.3 | 48.9 |
| 42. Talked the problem over with someone who had been in a similar situation | Su | 20.5 | 25.0 | 38.6 | 15.9 |
| 43. Practiced in your mind what had to be done | Co | 5.7 | 13.6 | 46.6 | 34.1 |
| 44. Tried to keep busy | Pa | 5.7 | 9.1 | 50.0 | 35.2 |
| 45. Learned something new in order to deal with the problem better | Co | 25.0 | 30.7 | 23.9 | 20.5 |

Note. Co = Confrontative, Ev = evasive, Op = optimistic, Fa = fatalistic, Em = emotive, Pa = palliative, Su = supportant, Se = self-reliant.

Table C2 (continued)

| Coping Items | Dimension | Percentage | | | |
|--|-----------|------------|--------|-----------|-------|
| | | Never | Seldom | Sometimes | Often |
| 46. Did something impulsive or risky that you would not usually do | Em | 83.0 | 11.4 | 5.7 | |
| 47. Thought about the good things in your life | Op | 6.8 | 26.1 | 40.9 | 26.1 |
| 48. Tried to ignore or avoid the problem | Ev | 43.2 | 21.6 | 31.8 | 3.4 |
| 49. Compared yourself with other people who were in the same situation | Op | 38.6 | 28.4 | 26.1 | 6.8 |
| 50. Tried to think positively | Op | 2.3 | 6.8 | 56.8 | 34.1 |
| 51. Blamed yourself for getting into such a situation | Em | 45.5 | 14.8 | 35.2 | 4.5 |
| 52. Preferred to work things out yourself | Se | 6.8 | 15.9 | 29.5 | 47.7 |
| 53. Took medication to reduce tension | Pa | 30.7 | 20.5 | 40.9 | 8.0 |
| 54. Tried to see the good side of the situation | Op | 2.3 | 1.1 | 58.0 | 38.6 |
| 55. Told yourself that this problem was really not that important | Ev | 15.9 | 9.1 | 30.7 | 44.3 |
| 56. Avoided being with people | Ev | 56.8 | 23.9 | 12.5 | 6.8 |
| 57. Tried to improve yourself in some way so you could handle the situation better | Se | 19.3 | 36.4 | 21.6 | 22.7 |
| 58. Wished that the problem would go away | Ev | 2.3 | 2.3 | 18.2 | 77.3 |
| 59. Dependent on others to help you out | Su | 48.9 | 23.9 | 25.0 | 2.3 |
| 60. Told yourself that you were just having some bad luck | Fa | 28.4 | 26.1 | 38.6 | 6.8 |

Note. Co = Confrontative, Ev = evasive, Op = optimistic, Fa = fatalistic, Em = emotive, Pa = palliative, Su = supportant, Se = self-reliant.

Zarit Burden Interview

Table C3

Distribution of Percentage of Burden (N = 88)

| Burden Items | Dimension | Percentage | | | | |
|---|-----------|------------|--------|-----------|------------------|---------------|
| | | Never | Rarely | Sometimes | Quite frequently | Nearly always |
| 1. Do you feel that your relative asks more help than he/she needs? | Re | 12.5 | 21.6 | 33.0 | 11.4 | 21.6 |
| 2. Do you feel that because of the time you spend with your relative you don't have enough time for yourself? | Re | 11.4 | 15.9 | 39.8 | 18.2 | 14.8 |
| 3. Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work? | Em | 20.5 | 13.6 | 31.8 | 18.2 | 15.9 |
| 4. Do you feel embarrassed over your relative's behavior? | Em | 45.5 | 9.1 | 33.0 | 8.0 | 4.5 |
| 5. Do you feel angry when you are around your relative? | Em | 15.9 | 8.0 | 44.3 | 5.7 | 26.1 |
| 6. Do you feel that your relative currently affects your relationships with other family members or friends in a negative ways? | So | 68.2 | 15.9 | 9.1 | 2.3 | 4.5 |
| 7. Are you afraid what the future hold for your relative? | Em | 10.2 | - | 17.0 | 8.0 | 64.8 |
| 8. Do you feel your relative is dependent on you? | Re | 6.8 | 4.5 | 14.8 | 13.6 | 60.2 |
| 9. Do you feel strained when you are around your relative? | Em | 26.1 | 4.5 | 36.4 | 14.8 | 18.2 |
| 10. Do you feel your health has suffered because of your involvement with your relative? | Lo | 34.1 | 14.8 | 34.1 | 9.1 | 8.0 |
| 11. Do you feel that you don't have as much privacy as you would like because of your relative? | So | 21.6 | 26.1 | 38.6 | 5.7 | 8.0 |

Note. Re = burden in the relationship, Em = emotional well being, So = social and family life, Fi = financial, Lo = Loss of control over one's life.

Table 3 (continued)

| Burden Items | Dimension | Percentage | | | | |
|---|-----------|------------|--------|-----------|------------------|---------------|
| | | Never | Rarely | Sometimes | Quite frequently | Nearly always |
| 12. Do you feel that your social life has suffered because you are caring for your relative? | So | 33.0 | 14.8 | 37.5 | 8.0 | 6.8 |
| 13. Do you feel uncomfortable about having friends over, because of relative? | So | 47.7 | 18.2 | 19.3 | 10.2 | 4.5 |
| 14. Do you feel that your relative seems to expect you to take care of him/her, as if you were the only one he/she could depend on? | Re | 12.5 | 4.5 | 8.0 | 5.7 | 69.3 |
| 15. Do you feel that you don't have enough money to take care for your relative, in addition to the rest of your expenses? | Fi | 9.1 | 3.4 | 27.3 | 4.5 | 55.7 |
| 16. Do you feel that you will be unable to take care of your relative much longer? | Lo | 18.2 | 9.1 | 28.4 | 21.6 | 22.7 |
| 17. Do you feel you have lost control of your life since your relative's illness? | Lo | 20.5 | 18.2 | 42.0 | 5.7 | 13.6 |
| 18. Do you wish you could just leave the care of your relative to someone else? | Lo | 47.7 | 14.8 | 28.4 | 4.5 | 4.5 |
| 19. Do you feel uncertain about what to do about your relative? | Em | 26.1 | 22.7 | 36.4 | 9.1 | 5.7 |
| 20. Do you feel you should be doing more for your relative? | Re | 12.5 | 21.6 | 33.0 | 11.4 | 21.6 |
| 21. Do you feel you could do a better job in caring for your relative? | Re | 2.3 | 8.0 | 58.0 | 19.3 | 12.5 |
| 22. Overall, how burdened do you feel in caring for your relative? | Em | 10.2 | 4.5 | 22.7 | 19.3 | 43.2 |

Note. Re = burden in the relationship, Em = emotional well being, So = social and family life, Fi = financial, Lo = Loss of control over one's life.

Table C4

Minimum, Maximum, Mean, and Standard Deviation of Social Support (N=88)

| Social Support | Possible Score | Min | Max | Mean | SD |
|----------------|----------------|-----|-----|-------|-------|
| Instrumental | 0 – 15 | 2 | 22 | 11.36 | 5.18 |
| Emotional | 0 – 12 | 0 | 15 | 9.75 | 3.75 |
| Informational | 0 – 24 | 2 | 12 | 6.35 | 1.93 |
| Appraisal | 0 – 3 | 0 | 9 | 5.88 | 1.98 |
| Overall | 0 – 60 | 12 | 57 | 33.34 | 10.07 |

Table C5

Minimum, Maximum, Mean, and Standard Deviation of Coping Strategies (N=88)

| Coping Strategies | Possible score | Min | Max | Mean | SD |
|-------------------|----------------|-----|-----|-------|------|
| Evasive | 0 – 39 | 8 | 33 | 20.60 | 5.36 |
| Optimistic | 0 – 27 | 10 | 27 | 18.24 | 3.10 |
| Confrontative | 0 – 30 | 6 | 30 | 17.45 | 5.95 |
| Self-Reliant | 0 – 21 | 8 | 21 | 13.64 | 2.50 |
| Palliative | 0 – 21 | 5 | 16 | 10.69 | 2.29 |
| Supportant | 0 – 15 | 4 | 14 | 8.69 | 2.25 |
| Fatalistic | 0 – 12 | 0 | 10 | 6.48 | 2.24 |
| Emotive | 0 – 15 | 0 | 12 | 5.72 | 2.52 |

Table C6

Minimum, Maximum, Mean, and Standard Deviation of Burden (N=88)

| Burden | Possible score | Min | Max | Mean | SD |
|---------------------------------|----------------|-----|-----|-------|-------|
| Burden in the relationship | 0 – 24 | 4 | 22 | 14.88 | 3.98 |
| Emotional well being | 0 – 28 | 0 | 28 | 14.68 | 6.68 |
| Social and family life | 0 – 16 | 0 | 16 | 4.58 | 3.61 |
| financial | 0 – 4 | 0 | 4 | 2.94 | 1.34 |
| Loss of control over one's life | 0 – 16 | 0 | 16 | 6.41 | 3.79 |
| Overall | 0 – 88 | 5 | 85 | 43.49 | 16.48 |

Table C7

Skewness and Standard Error of Skewness of Social Support, Coping, and Burden (N= 88)

| Variables | Skewness | SE Skewness | Skewness/SE Skewness |
|---------------------------------|----------|-------------|----------------------|
| Social support | -.02 | .26 | 0.09 |
| Emotional | -.58 | .26 | 2.25 |
| Informational | -.01 | .26 | 0.06 |
| Instrumental | .18 | .26 | 0.68 |
| Appraisal | -.02 | .26 | 0.08 |
| Coping | | | |
| Confrontative | .46 | .26 | 1.78 |
| Evasive | -.18 | .26 | 0.69 |
| Optimistic | .57 | .26 | 2.23 |
| Fatalistic | -.63 | .26 | 2.43 |
| Emotive | .21 | .26 | 0.00 |
| Palliative | .05 | .26 | 0.18 |
| Supportant | .01 | .26 | 0.03 |
| Self-reliant | .43 | .26 | 0.00 |
| Burden | -.03 | .26 | 0.12 |
| Burden in the relationship | -.64 | .26 | 2.48 |
| Emotional well being | -.38 | .26 | 1.46 |
| Social and family life | .90 | .26 | 3.52 |
| Financial | -.92 | .26 | 3.56 |
| Loss of control over one's life | .24 | .26 | 0.00 |

Relationship between Social Support, Coping, and Burden

Table C8

Correlation between Social Support and Coping Using Pearson's Product-Moment Correlation Coefficient (r) ($N=88$)

| Variable | Social Support | | | | |
|---------------|----------------|------|--------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 |
| Coping | | | | | |
| Confrontative | .72** | .03 | .55** | .58** | .68** |
| Evasive | -.45** | -.13 | -.47** | -.42** | -.52** |
| Optimistic | .44** | .05 | .31** | .43** | .42** |
| Fatalistic | .38** | -.07 | -.34 | -.24 | -.41 |
| Emotive | -.06 | .03 | -.19 | -.06 | -.12 |
| Palliative | .03 | .03 | .06 | -.07 | .03 |
| Supportant | .47** | .14 | .37** | .34** | .46** |
| Self reliant | -.22 | -.11 | -.17 | -.04 | -.10 |

Note. * $p < .05$, ** $p < .01$; 1 = emotional support, 2 = informational support, 3 = instrumental support, 4 = appraisal support, 5 = loss control over one's life

Table C9

Correlation between Coping and Burden Using Pearson's Product-Moment Correlation Coefficient (r) and Spearman's Rho (r_s) ($N=88$)

| Variable | Burden | | | | | |
|---------------|--------|--------|-------------|-------------|--------|--------|
| | 1 | 2 | 3 (r_s) | 4 (r_s) | 5 | 6 |
| Confrontative | -.29** | -.50** | -.22* | -.44** | -.32** | -.40** |
| Evasive | .36** | .48** | .34** | .50** | .43** | .50** |
| Optimistic | -.36** | -.36** | -.21* | -.17 | -.17 | -.31** |
| Fatalistic | .42** | .56** | .35** | .45** | .53 | .57** |
| Emotive | .18 | .40** | .37** | .23* | .31** | .38** |
| Palliative | .08 | .11 | .10 | .27** | .15 | .14 |
| Supportant | -.26* | -.40** | -.29** | -.32** | -.25* | -.36** |
| Self reliant | .14 | .08 | .25 | .12 | .17 | .18 |

Note. * $p < .05$, ** $p < .01$; 1 = burden in the relationship, 2 = emotional well being, 3 = social and family life, 4 = financial, 5 = loss control over one's life, 6 = overall burden.

Table C10

Correlation between Social Support and Burden Using Pearson's Product-Moment Correlation Coefficient (r) and Spearman's Rho (r_s) ($N=88$)

| Variable | Burden | | | | | |
|----------------|--------|--------|-------------|-------------|--------|--------|
| | 1 | 2 | 3 (r_s) | 4 (r_s) | 5 | 6 |
| Emotional | -.30** | -.51** | -.41** | -.43** | .39** | -.47** |
| Informational | .00 | .04 | -.01 | -.01 | -.00 | .02 |
| Instrumental | -.35** | -.48** | -.34** | -.34** | -.41** | -.47** |
| Appraisal | -.31 | -.45** | -.34** | -.38** | -.38** | -.45** |
| Social Support | -.35** | -.51** | -.41** | -.44** | -.43** | -.50** |

Note. * $p < .05$, ** $p < .01$; 1 = burden in the relationship, 2 = emotional well being, 3 = social and family life, 4 = financial, 5 = loss control over one's life, 6 = overall burden.

Additional Data Analysis

Table C11

t-test for Examining the Differences of the Means Between Marital Status and Social Support (N= 88)

| Marital Status | N | Social support | | t | p |
|----------------|----|----------------|-------|-------|-----|
| | | M | SD | | |
| Married | 73 | 34.44 | 9.67 | -2.31 | .02 |
| Single | 15 | 28.00 | 10.60 | | |

Table C12

ANOVA Test for Examining the Differences of the Means between Relationship with the Mentally Ill Member and Optimistic Coping (N= 88)

| Relationship with the Mentally Ill Member | N | Optimistic Coping | | | p |
|---|----|-------------------|-------|-------|------|
| | | M | SD | F | |
| Mother | 45 | 24.50 | 12.52 | 25.05 | 0.00 |
| Father | 17 | 39.82 | 12.54 | | |
| Relative & others | 26 | 53.89 | 14.14 | | |

Table 13

Post Hoc Test: LSD for Examining the Differences of the Means within Groups of Relationship with the Mentally Ill Member

| Relationship with the Mentally Ill Member | | Mean Difference | SE | p |
|---|-------------------|-----------------|-----|-----|
| Father | Mother | .87 | .80 | .28 |
| | Relative & others | -.23 | .87 | .01 |
| Mother | Father | -.87 | .80 | .28 |
| | Relative & others | .69 | .69 | .00 |
| Relative & others | Father | .87 | .87 | .01 |
| | Mother | .69 | .69 | .00 |

Table C14

ANOVA Test for Examining the Differences of the Means between Severity of the Disease Perceived by the Subjects and Burden (N= 88)

| Severity of the Disease Perceived by the Subjects | N | Burden | | | F | p |
|--|----|--------|-------|--|-------|------|
| | | M | SD | | | |
| Mild | 12 | 24.50 | 12.52 | | 25.05 | 0.00 |
| Moderate | 40 | 39.82 | 12.54 | | | |
| Severe | 36 | 53.89 | 14.14 | | | |

Table 15

Post Hoc Test: LSD for Examining the Differences of the Means within Groups of Severity of the Disease Perceived by the Subjects

| Severity of the Disease Perceived by the Subjects | | Mean Difference | SE | p |
|---|----------|-----------------|------|------|
| Mild | Moderate | -15.32 | 4.35 | .001 |
| | Severe | -29.38 | 4.40 | .00 |
| Moderate | Mild | 15.32 | 4.35 | .001 |
| | Severe | -14.06 | 3.04 | .00 |
| Severe | Mild | 29.39 | 4.41 | .00 |
| | moderate | 14.06 | 3.04 | .00 |

Table C16

Kruskal-Wallis Test for Examining the Differences between Educational Level and Burden (N= 88)

| Educational Level | N | Burden | | |
|--------------------|----|-----------|-------|------|
| | | Mean Rank | H | P |
| No- elementary | 56 | 51.55 | 15.99 | .001 |
| Junior high school | 16 | 31.19 | | |
| Senior high school | 10 | 40.30 | | |
| Graduate | 6 | 21.17 | | |

Table C17

Chi-Square Test for Examining the Differences between the Mentally Ill Member's Behavior Making the Subjects Worried the Most and Burden (N=88)

| The Mentally Ill Member's Behavior Making the Subjects Worried the Most | N | Burden | | | | X ² | P |
|--|----|--------|----|----|---|----------------|-----|
| | | 1 | 2 | 3 | 4 | | |
| Yes | 79 | 11 | 25 | 37 | 6 | 7.85 | .05 |
| No | 9 | 1 | 7 | 1 | 0 | | |

APPENDIX D
LIST OF EXPERTS

List of experts for content validity

| Experts | Workplace |
|--|--|
| 1. Asst. Prof. Dr. Umaporn Boonyasopun | Faculty of Nursing Prince of Songkla University, Thailand |
| 2. Kusman Ibrahim, Ph.D, RN | Faculty of Nursing Padjadjaran University, Indonesia |
| 3. Suryani, S.Kp, MHSc. | Faculty of Nursing Padjadjaran University, Indonesia |
| 4. Aat Sriati, S.Kp, M.Kes | Faculty of Nursing Padjadjaran University, Indonesia |
| 5. Iyus Yosep, S.Kp, M.Kes | Faculty of Nursing Padjadjaran University, Indonesia |

APPENDIX E

PERMISSION OF THE INSTRUMENTS

Revised Jalowiec Coping Scale (JCS)

Re: the JCS instrument

Tuesday, August 10, 2010 20:06

From: "Anne Jalowiec" ajalowiec@yahoo.com

To: "imas rafiyah" <ners_imas@yahoo.com>

Dear Ms Rafiyah:

Thank you for your interest in the Jalowiec Coping Scale (JCS). The usual fee for permission to use the JCS and to obtain the JCS packet of materials is \$75 (in US dollars); however for students with financial problems, I can reduce the fee to \$25.

Along with a copy of the scale, the JCS packet contains the following materials: a description of the JCS, a list of which items belong to which subscales (for coding and scoring the instrument), directions for scoring the JCS, reliability and validity data on the JCS, and a JCS bibliography.

Therefore, if you would like to use the JCS in your project, please send a check for \$25 (in US dollars) made out to my name (Anne Jalowiec) to the following address:

Dr Anne Jalowiec
346 North Deer Mountain Road
Florissant, Colorado 80816
USA

As soon as I receive your check, I will email the JCS packet to you.
If you have any questions, please email me at: ajalowiec@yahoo.com.

Sincerely,
Dr Anne Jalowiec, RN, PhD

Re: the JCS instrument

Friday, November 5, 2010, 7:29 PM

From: Anne Jalowiec ajalowiec@yahoo.com

To: "imas rafiyah" <ners_imas@yahoo.com>

Dear Ms Rafiyah:

Thank you for letting me know. I will pick up the Western Union money transfer next week.
Attached is the JCS packet as 6 pdf files.
Good luck with your research.

Dr Jalowiec

Zarit Burden Interview (ZBI)

RE: 18550_ZBI
Thursday, July 29, 2010 03:14
From: "Lyra Lavazais" <llavazais@mapigroup.com>
To: "imas rafiyah" <ners_imas@yahoo.com>
1 File (224KB)

Dear Imas,

Thank you for your interest in the ZBI and for the scanned copy of the user agreement. Please be reminded that the original copy must be returned to us by regular mail to my address below. As per your request, I am sorry to inform you that we do not have versions specifically for Indonesia. If you are interested in performing the translation by your own means, we may grant you the permission to do so. For this purpose, I invite you to complete the attaché Translation agreement. Upon receipt of this document, I will be happy to send you the original US English version of the ZBI with the linguistic validation guidelines to help you with the translation process. Please tell me if you intend to do so. If you don't have time to do a translation, I will be happy to send you only the US English version. I hope this finds you well. If you have questions, please don't hesitate to get back to me directly.

Kind regards,

Lyra LAVAZAIS
Information Resources Unit Assistant, MAPI RESEARCH TRUST
27 rue de la Villette |69003 Lyon | France
Tel: +33 (0) 4 72 13 65 75 | Fax: +33 (0) 4 72 13 66 82 | llavazais@mapigroup.com | www.mapi-trust.org | www.groupemapi.com | www.proqolid.org | www.mapi-prolabels.org

RE: 18550_ZBI_US English version sent
Thursday, July 29, 2010 06:09
From: "Lyra Lavazais" <llavazais@mapigroup.com>
Kepada: "imas rafiyah" <ners_imas@yahoo.com>

Hello Imas,

Here therefore is the US English version of the ZBI. I hope this finds you well.
Wishing you all the best,

Lyra LAVAZAIS

VITAE

Name Mrs. Imas Rafiyah

Student ID 5210420042

Educational Attainment

| Degree | Name of Institution | Year of Graduation |
|---------------------|-----------------------------------|--------------------|
| Bachelor of Nursing | Padjadjaran University, Indonesia | 2000 |

Scholarship Awards during Enrolment

Scholarship for Master Degree (2009-2011) funded by Directorate of Higher Education, the Ministry of Education, Republic of Indonesia

Work – Position and Address

| | |
|----------------|--|
| 2000 – 2001 | Lecturer at Academy of Nursing PPNI Bandung, Indonesia Jl. Pasteur No. 21, Bandung, Jawa Barat, Indonesia |
| 2001 – Present | Lecturer at Faculty of Nursing, Padjadjaran University, Indonesia Jl. Raya Bandung-Sumedang Km 21, Jatinangor, Sumedang Jawa Barat, Indonesia |

List of Publication and Proceeding

- Rafiyah, I., & Suttharangsee, W. (2011). Review: Burden on family caregivers caring for patients with schizophrenia and its related factors. *Nurse Media Journal of Nursing*, 1(1), 29-41.
- Rafiyah, I., & Suttharangsee, W., & Sangchan, H. (in press). Social support and coping of Indonesian family caregivers caring for persons with schizophrenia. *Nurse Media Journal of Nursing*.
- Rafiyah, I., & Suttharangsee, W., & Sangchan, H. (in press). Coping and burden of Indonesian family caregivers caring for persons with schizophrenia. *Songklanagarind Medical Journal*.