

**QUALITY OF LIFE AND SYMPTOM SELF-MANAGEMENT
OF PATIENTS WITH BIPOLAR DISORDER**



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Thesis
Entitled

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OF PATIENTS WITH BIPOLAR DISORDER**

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QUALITY OF LIFE AND SYMPTOM SELF-MANAGEMENT OF PATIENTS WITH BIPOLAR DISORDER

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ABSTRACT

This study is descriptive research describing quality of life and symptom self-management of patients with bipolar disorder. The sample was 100 patients with bipolar disorder in the partial remission phase. (≤ 10 on the Young Mania Rating Scale (YMRS), ≤ 11 on the Montgomery Asberg Depression Rating Scale (MADRS)). The samples were outpatients at Siriraj Hospital and Ramathibodi Hospital. They were selected by purposive sampling method. The research instrument was an interview questionnaire consisting of questions concerning demographic information, Short form 36 Health Survey (Ware, 1993) for the measurement of quality of life and The Moller-Murphy Symptom Management Assessment Tool (Murphy & Moller, 1993) for the measurement of symptom self-management. Data were analyzed by using percentage, means and standard deviation.

The results revealed that the two highest mean scores of quality of life were physical functioning ($M=96.70$, $SD=1.65$) and social functioning ($M=94.37$, $SD=1.02$). The two lowest mean scores of quality of life were role-emotional ($M=58.33$, $SD=1.46$) and general health ($M=61.81$, $SD=2.85$). The overall frequency and perceived efficacy of symptom self-management was at a fairly low level. The strategy of symptom self-management most frequently used was distraction ($M=1.73$, $SD=.37$) and most perceived efficacy was help-seeking ($M=2.15$, $SD=.26$).

The results recommended that health care providers in the hospital should be take the data of quality of life into account when planning holistic care for patients with bipolar disorder and should encourage symptom self-management in patients with bipolar disorder.

KEY WORDS : QUALITY OF LIFE/ SYMPTOM SELF-MANAGEMENT/
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113 P.

คุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว
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บทคัดย่อ

การศึกษานี้เป็นวิจัยเชิงพรรณนา เพื่อศึกษาคุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว กลุ่มตัวอย่างเป็นผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว ซึ่งอยู่ในระยะ partial remission ประเมินภาวะ remission โดยใช้แบบวัด Young Mania Rating Scale (YMRS) ที่คะแนนน้อยกว่าหรือเท่ากับ 10 และใช้แบบวัด Montgomery Asberg Depression Rating Scale (MADRS) ที่คะแนนน้อยกว่าหรือเท่ากับ 11 โดยมารับการรักษาที่ตึกผู้ป่วยนอก แผนกจิตเวช โรงพยาบาลศิริราชและโรงพยาบาลรามารับดี คัดเลือกกลุ่มตัวอย่างแบบเจาะจงจำนวน 100 ราย เก็บข้อมูลโดยการสัมภาษณ์ในระหว่างเดือนกรกฎาคม - สิงหาคม พ.ศ. 2549 เครื่องมือที่ใช้คือ แบบบันทึกข้อมูลส่วนบุคคล แบบวัดคุณภาพชีวิตของ Ware (1993) และแบบสัมภาษณ์การจัดการกับอาการด้วยตนเองของ Murphy & Moller (1993) วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา โดยการแจกแจงความถี่ ร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน

ผลการศึกษาพบว่า กลุ่มตัวอย่างมีคะแนนเฉลี่ยคุณภาพชีวิตสูงสุดในด้านการทำหน้าที่ทางร่างกาย ($M=96.70$, $SD=1.65$) รองลงมาคือด้านการทำหน้าที่ทางสังคม ($M=94.37$, $SD=1.02$) และมีคะแนนคุณภาพชีวิตต่ำสุดในด้านการถูกจำกัดบทบาทอันเนื่องจากปัญหาทางอารมณ์ ($M=58.33$, $SD=1.46$) รองลงมาคือด้านสุขภาพทั่วไป ($M=61.81$, $SD=2.85$) และพบคะแนนเฉลี่ยโดยรวมของความถี่และรับรู้ประสิทธิผลในการจัดการกับอาการด้วยตนเองอยู่ในระดับค่อนข้างต่ำ โดยกลุ่มตัวอย่างนิยมใช้วิธีด้านการเบี่ยงเบนมากที่สุด ($M=1.73$, $SD=.37$) และรับรู้ประสิทธิผลของวิธีด้านการแสวงหาความช่วยเหลือมากที่สุด ($M=2.15$, $SD=.26$)

ผลการศึกษาเสนอแนะว่า บุคลากรทีมสุขภาพในโรงพยาบาลควรนำข้อมูลคุณภาพชีวิตที่ได้ไปวางแผนให้การดูแลผู้ป่วยแบบองค์รวม และควรมีการศึกษาถึงวิธีการส่งเสริมให้ผู้ป่วยสามารถจัดการกับอาการด้วยตนเองให้มีประสิทธิภาพยิ่งขึ้น

CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
LIST OF TABLES	viii
CHAPTER	
I INTRODUCTION	1
- Background and Significance of the Study	1
- Research Questions	4
- Objective of the Study	4
- Conceptual Framework	5
- Scope of the Study	8
- Definition of Terms	8
- Expected Benefits of the Study	10
II LITERATURE REVIEW	11
2.1 Bipolar Disorder	12
- Characteristics and causes of bipolar disorder	12
- Progression of bipolar disorder	17
- Treatment of bipolar disorder	21
- Impacts of bipolar disorder on the patients	25
2.2 Quality of Life	27
- Meanings of quality of life	27
- Quality of life of patients with bipolar disorder	30
- Assessment of quality of life	32
2.3 Self-management and symptom self-management	36
- Self-management	36
- Symptom self-management	40
- Assessment of symptom self-management	42

CONTENTS (continued)

	Page
2.4 Conclusion	44
III METHODOLOGY	45
- Population and Sample of the Study	45
- Research Instrument	47
- Validity and Reliability	51
- Data Collection	52
- Protection of Human Subjects	54
- Data Analysis	54
IV RESULT	55
V DISCUSSION	63
VI CONCLUSION	71
REFERENCES	74
APPENDIX	87
BIOGRAPHY	113

LIST OF TABLES

Table	Page
1. Demographic characteristics of the samples.	56
2. Mean and standard deviation of manic and depressive symptoms scores of patients with bipolar disorder.	59
3. Mean and standard deviation of quality of life scores, categorized by dimensions of quality of life.	60
4. Mean and standard deviation of symptom self-management scores regarding the frequency of use, categorized by symptom management strategies.	61
5. Mean and standard deviation of perceived efficacy of symptom self-management scores, categorized by symptom management strategies.	62
A. Mean and standard deviation from the highest scores to the lowest scores of symptom self-management scores and percentage of using symptom self-management strategy, categorized by the dimension.	104
B. Mean and standard deviation of perceived efficacy of symptom self-management scores and percentage of perceived efficacy of symptom self-management strategy, categorized by the dimension.	107

CHAPTER I

INTRODUCTION

Background and Significance of the Study

At present, the prevalence of bipolar disorder is approximately 2.8 – 6.5 percent of the world population (Bauer & Pfenning, 2005). In the year 2000, the World Health Organization predicted that bipolar disorder would be one of the first five illnesses that cause the loss of a person's livelihood (Yatham, Lecrubier, Fieve, Davis, Harris, & Krishnan, 2004). According to the Department of Mental Health, the numbers of patients with bipolar disorder in Thailand in 2004 was 24,976, made up of 10,526 males and 14,450 females, as reported in the record of new patients receiving medical care at 17 hospitals affiliated with the department (Department of Mental Health, 2005). Statistical records from Srithanya Hospital show that the number of patients with bipolar disorder in 2002, 2003, and 2004 was 1,908, 2079, and 3,776, respectively (Srithanya Hospital, 2002; 2004; 2005). Further records from Somdet Chao Phraya Hospital report the number of patients with bipolar disorder in outpatient and inpatient departments from 2002 to 2004 at 4,541, 4,968, and 6,531 respectively (Somdet Chao Phraya Hospital, 2002; 2003; 2004). Referring to these records, it is evident that the number of patients with bipolar disorder has been increasing continuously.

Bipolar disorder is characterized by emotional disorders, with mood swings from mania to depression. The manic symptoms can be categorized into three major groups: emotional, behavioral, and mental symptoms. Emotional symptoms include an overly euphoric mood, over excitement, and an uninhibited expression of emotion or desire with extreme irritability in response to interference from other people. For behavioral symptoms, the patients are highly productive but ineffective, have a decreased need for sleep, become extremely sociable and talkative, talk rapidly, go on spending sprees, and have an increased sexual drive. For mental symptoms, the

patients may present with delusions of grandeur, impaired judgment, and denial (Lortrakool & Sudnitch, 1996). The symptoms during the depressive episode include feeling sad and bored, loss of interest, loss of appetite, insomnia, tiredness, loss of concentration, feeling worthlessness, and having suicidal tendencies (Ruangtrakool, 2002). It was found that about 10 – 15 percent of people with bipolar disorder commit suicide. The suicidal tendencies and suicidal attempts usually occur during the depressive phase or during a mixed bipolar phase. The patients may have an aggressive behavior such as attacking their children or their spouse while having severe symptoms. Other problems may also appear, in addition to mental illness, such as poor school and work performance, and alcohol or drug abuse (Ruangtrakool, 2002). These problems affect family relationships, as well as the patients' relationship with other people. Patients with bipolar disorder also lose the ability to respond to their basic needs thus they are unable to perform their social and family roles, including having an occupation to earn income for themselves and their family. The illness, therefore, has detrimental impacts on society and the country (Sapcharoen, 1999).

It has been found that bipolar disorder has a frequent relapse of symptoms, as more than 90 percent of people who show symptoms for the first time will suffer a relapse of symptoms for a second time (Muller-Oerlinghausen, Berghofer, & Bauer, 2002). Approximately 40 – 50 percent of the patients will have a relapse of their illness within two years of the first sign of symptoms (Kaplan & Sadock, 1997). Moreover, about 40 percent of the patients will have a recurrence of their illness more than 10 times in their lifetime (Kaplan & Sadock, 1997). The average period for a manic episode resulting from bipolar disorder is about 6 months (Gelder, Mayou, & Cowen, 2001). Significant factors that contribute to the recurrence of illness and hospitalization are poor self-care and severity of symptoms during hospitalization (Lyon, O'Mahoney, Miller, Neme, Kabat, & Miller, 1997). It was further found that 84 – 98 percent of patients with manic symptoms do not experience a relapse after having medical treatment for 6 and 24 months. However, only 38 percent can function as usual (Tohen, et al., 2000). Therefore, it is evident that most patients lose their ability to perform various functions such as work, housework, free time activities, social activities, and family relations (Fagiolini, Kupfer, Masalehdan, Scott, Houck, & Frank,

2005). These losses of functioning do not only affect the quality of life, but also increase the risk of a relapse.

Bipolar disorder, therefore, has a substantial impact on the patients' quality of life. It is found that the quality of life of patients with bipolar disorder is significantly lower when compared with patients affected by other depressive disorders (Yatham et al., 2004), patients with schizophrenia (Atkinson, Zibin, & Chuang, 1997; Rousso, et al., 1997) or patients with chronic physical illness such as backache (Arnold, 2000). The comparison of quality of life among patients with bipolar disorder in various phases shows that patients with Bipolar Disorder II have a lower quality of life than those with Bipolar Disorder I in terms of social functioning and mental health (Cooke, Robb, Young, & Joffe, 1996). It is also found that a depressive episode has an effect on the patients' quality of life more than a manic episode (MacQueen, Young, Robb, Marriott, Cooke, & Joffe, 2000). Moreover, patients in manic phase have lower quality of life than those in euthymic phase (Vojta, Kinosian, Glick, Altshuler, & Bauer, 2001). A study shows that patients with bipolar disorder have a lower quality of life than patients with unipolar depression (Yatham, 2004). Patients need to present with mild symptoms for the information to be reliable. Patients with bipolar disorder in remission have mild symptoms, which do not meet the lower-end of the diagnostic criteria (Lortrakool & Sudnitch, 1996) and those who have mild or moderate symptoms use self-reporting instruments of quality of life to explain the consistency of their symptoms (Altman, 1998). Nevertheless, they still have some symptoms and need medical treatment and proper management of those symptoms.

Self-management is a process of self-control and symptom monitoring on the basis of cognition and learning from previous experiences (Kanfer & Goelick, 1991). Self-management of patients with chronic illnesses involves perception, response, monitoring and prevention of symptoms, drug use, management of emergency state, dietary control, exercise, smoking control, stress management, interaction with health team, information management, adaptation to work, interpersonal relations, and psychosocial response to their illness and emotion (Clark, Becker, Janz, Lorig, Rakowski, & Anderson, 1991). Self management can prevent a recurrence of illness in psychotic patients (Steven & Sin, 2005). It is mostly focused on the management of symptoms more than other aspects (Pollack, 1996). According to Murphy and Moller

(1993), symptom monitoring and symptom self-management are significant factors for the prevention of recurring illnesses. Cutler (2001) found that a patient's ability to self-manage their symptoms after they are discharged from hospital can prevent re-admission. Kennedy, Schepp, & O'Connor, (2000) found an association between symptom self-management behavior and efficacy in symptom self-management with a statistical significance ($r = .798, p < .01$).

The researcher of this study is interested in the quality of life and symptom self-management of patients with bipolar disorder in remission. This study aims to investigate two components of symptom self-management comprising of symptom self-management behavior and efficacy of symptom self-management. The purpose of this research is to examine the quality of life of patients with bipolar disorder and to enhance knowledge and understanding about symptom self-management behavior and the efficacy of symptom self-management.

Research Questions

1. What is the quality of life of patients with bipolar disorder?
2. How is symptom self-management behavior and perceived efficacy in symptom self-management of patients with bipolar disorder?

Objectives of the Study

1. To investigate the quality of life of patients with bipolar disorder.
2. To study symptom self-management and perceived efficacy in symptom self-management of patients with bipolar disorder.

Conceptual Framework

This study of quality of life and symptom self-management of patients with bipolar disorder was based on Ware's concept of quality of life (Ware, 1993) and self-management concept proposed by Kanfer (1980, 1991) is also applied to explain the process of self-symptom management in patients with bipolar disorder.

According to Ware's concept of health-related quality of life (HRQOL), quality of life reflects physical and mental health, role and function, and well-being. The health-related quality of life (HRQOL) in the health domain can be assessed in four different aspects comprising 1) behavioral function, 2) perceived well-being, 3) social and role disability, and 4) general health perception. The behavioral function is usually measured from health limitations and/or bodily pain, social participation, and activity performance, which are noticeable and tangible; for instance, walking or doing daily activities. Perceived well-being is an internal factor and has individual characteristics thus it cannot be observed from behavior only. Therefore, perceived well-being is measured with the assessment of size and number of feelings toward mental health, pain, and vitality (energy and exhaustion). Personal perception of general health consists of the assessment of present health and impacts from symptoms of illness, including other symptoms that are not measurable with the aforementioned assessments.

Thus, quality of life, according to Ware, is constituted with eight domains, as listed below (Ware, 1993).

1. Physical functioning, referring to physical health condition that limits activity performance.
2. Role limitation due to physical problems or role-physical, referring to general roles that are limited due to physical health conditions that are an obstacle to working or doing housework.
3. Role limitation due to emotional problems or role-emotional, referring to the emotional state that affects one's performance of daily activities.
4. Social role limitation due to physical and emotional problems (social-function), referring to physical or emotional conditions that lead to limitations in participating in social activities.

5. Bodily pain, referring to physical pain from health conditions, such as headache, joint pain, and muscular pain. Bodily pains disturb normal body functioning.

6. Mental health, referring to anxious and depressive feelings, or calm, comfortable and happy feelings.

7. Vitality, referring to the sense of being active and powerful enough to do anything or it may be the feeling of tiredness and exhaustion.

8. General health perception, referring to the perception of one's health as being as healthy as a normal person or still being ill.

The quality of life of patients with bipolar disorder is severely impaired. In comparison with normal people and patients with chronic physical illness, such as people with backache, patients with bipolar disorder have a significantly lower quality of life (Arnold, Witzeman, Swank, McElroy, & Keck, 2000). When compared with patients with other psychotic illness, such as patients with depressive disorder (Yatham, et al., 2004) and patients with schizophrenia (Atkinson, et al., 1997; Rousso, et al., 1997), the quality of life of patients with bipolar disorder is also lower. A study reports that the quality of life of patients with bipolar disorder is associated with the severity of symptoms: when the symptoms are more severe, the patient's quality of life is increasingly impaired (Chand, Mattoo, & Sharan, 2004). Patients with bipolar disorder experiencing a depressive episode, in particular, have a significantly lower quality of life (Yatham, et al., 2004).

Patients with bipolar disorder in remission have milder symptoms that do not meet the lower-end of the diagnostic criteria (Lortrakool & Sudnitch, 1996). However, these patients still have some symptoms, either manic or depressive, and they need symptom management to enable themselves to have a livelihood and live with other people in the society. Self-management is a preventive action or any therapeutic activities for health care (Tobin, Reynold, Holroyd, & Creer, 1986). It aims to promote self-control (Thoresen & Mahoney, 1974). The final target of self-management is to decrease the morbidity and mortality rate, and improve the quality of life (Tobin et al., 1986). The outcome of self-management can be classified into categories, from no presence of physical symptoms or physical changes; self-management behavior;

severity of illness; general health, including physical, psychological and social functioning; and perceived self-efficacy (Tobin et al., 1986).

Kanfer (1980, 1991) proposes that self-management is the process of self-control that requires attentive monitoring of one's behavioral changes, based on information from the cognitive process and learning from past experience. The obtained information is applied to self-appraisal of and decision-making about the response or the behavior that could lead to expected outcomes. Self-management is a significant process that helps patients learn to modify their behaviors in response to environmental stimulation and in reducing the severity of symptoms. Inaccurate self-appraisal will lead to inappropriate decisions about responsive behaviors, resulting in ineffective self-management or symptom control. Nevertheless, provision of support may help a person to conduct appropriate behavior and achieve the expected outcomes; as a result, the person will continue to behave in that manner and have increased self-control. Murphy and Moller (1993) classified the behavior that patients conduct to manage early symptoms before the relapse of illness into six domains comprising: 1) distraction, such as watching television, listening to music, talking with friends or working; 2) fighting back, such as shouting at a non-existent voice, ignoring disturbing thoughts, talking to one's self or having positive thinking; 3) help-seeking, such as talking to doctors, nurses or family members or receiving care from clinics at mental health care centers; 4) attempts to feel better, such as taking medication, having food, meditating, taking a shower or using herbal medicines; 5) isolation, such as sleeping, staying at home or abiding the symptoms; and 6) escape behavior, such as smoking cigarettes, drinking alcohol or using addictive substances.

Self-management in patients with a chronic illness requires the following three key components to achieve a desired outcome: 1. self-control learning, 2. belief in self-efficacy to improve health behavior (increased expectancies in self-efficacy), and 3. setting environmental conditions to promote self-control in patients with chronic illnesses (Tobin et al., 1986). These components derive from formal and informal learning; for instance, from health professionals' advice and health education, reading and listening to information, and learning from experience. Symptom self-management refers to the behavior that is modified to control symptoms in patients with bipolar disorder. Action in symptom self-management includes compliance with

medical treatment, avoidance of symptom stimuli and interpersonal interaction (Murphy & Moller, 1993). The purposes of symptom self-management are to reduce the frequency and severity of symptoms so that the patients can live their life and maintain their well-being. Symptom self-management is composed of three constituents, comprising 1. observation and monitoring of symptom changes, 2. symptom self-management, and 3. perceived self-efficacy in symptom self-management and re-application of symptom self-management behavior upon the perception of its effectiveness (Tobin et al., 1986). The current research will investigate symptom self-management behavior and perceived self-efficacy in symptom self-management.

The researcher of this study was interested in the quality of life and symptom self-management in patients with bipolar disorder in remission. It was expected that the result of this study would enhance knowledge and understanding about the quality of life and symptom self-management in patients with bipolar disorder.

Scope of the Study

This research is a study of quality of life and symptom self-management of patients with bipolar disorder. The study was conducted with patients who were diagnosed with bipolar disorder in the remission phase and received treatment at outpatient clinics of the psychiatry departments at Siriraj Hospital and Ramathibodi Hospital.

Definition of Terms

1. Patients with bipolar disorder refer to persons who were diagnosed with bipolar disorder according to the DSM-IV-TR criteria or Bipolar Affective Disorder: F31 of the ICD-10-TM. The patients were in remission and had mild symptoms that did not meet the low-end of diagnostic criteria (Lortrakool & Sudnitch, 1996). They received medical treatment at the outpatient clinics of the psychiatry departments at Siriraj Hospital and Ramathibodi Hospital.

2. Quality of life of patients with bipolar disorder refers to perceived satisfaction toward health-related quality of life of patients with bipolar disorder regarding physical and mental health. The quality of life was assessed with the Short Form 36 Health Survey Thai version (SF-36), which Ronnachai Kongsakon (1999) translated from the original English SF-36 developed by Ware (1993). The quality of life consists of 8 domains, as listed below.

1. Physical functioning
2. Role limitation due to physical problems, or role-physical
3. Role limitation due to emotional problems, or role-emotional
4. Social role limitation due to physical and emotional problems, or social function
5. Bodily pain
6. Mental health
7. Vitality
8. General health perception

3. Symptom self-management refers to the behavior concerning symptom management and perceived self-efficacy in the management of symptoms with that behavior of patients with bipolar disorder. Symptom self-management was assessed with a symptom management assessment tool, which was developed by Murphy and Moller (1993). The instrument was translated and modified for utilization by Thai people by Vayunee Changming (2003). It was then modified to suit the application with measurement of symptom self-management behavior in patients with bipolar disorder. Symptom self-management was assessed in 6 domains, as listed below.

1. Distraction
2. Fighting back
3. Help-seeking
4. Attempts to feel better
5. Isolation
6. Escape behavior

Expected Benefits of the Study

1. The findings of this study will enhance knowledge and understanding about the quality of life of patients with bipolar disorder.
2. The study will promote knowledge and understanding about self-symptom management and perceived self-efficacy in symptom self-management of patients with bipolar disorder.



CHAPTER II

LITERATURE REVIEW

This research is a study of quality of life and symptom self-management of patients with bipolar disorder. Related research and literature were reviewed for the study, as detailed under the following topics:

1. Bipolar disorder
 - 1.1 Characteristics and causes of bipolar disorder
 - 1.2 Progression of bipolar disorder
 - 1.3 Treatment of bipolar disorder
 - 1.4 Impacts of bipolar disorder on the patients
2. Quality of life
 - 2.1 Meanings of quality of life
 - 2.2 Quality of life of patients with bipolar disorder
 - 2.3 Assessment of quality of life
3. Self-management and symptom self-management
 - 3.1 Self-management
 - 3.2 Symptom self-management
 - 3.3 Assessment of symptom self-management
4. Conclusion

1. Bipolar Disorder

1.1 Characteristics and causes of bipolar disorder

Bipolar disorder, as in the DSM-IV-TR, or bipolar affective disorder with F31 coding in the ICD-10-TM, is a type of mood disorder characterized by intermittent occurrences of symptoms, of which the periods of normal and abnormal condition are clearly distinguished with clinical symptoms. The illness episode may last for several weeks or months with symptoms of two major types of mood disorder: depression or mania. Nevertheless, some patients may have depressive symptoms along with manic symptoms during a mixed episode. This illness was originally called manic-depressive illness (disorder), as each patient may have several episodes of depression and mania in a lifetime. The American Psychiatric Association later determines the diagnostic criteria for manic episode, hypomanic episode, major depressive episode and mixed episode, which are significant criteria for the diagnosis of bipolar disorder. Major symptoms of manic episode include happy and expansive moods with alternative moods of anger and irritability. The patients also demonstrate changes in thoughts and behaviors with the mood disorder, such as having rapid thoughts and speech, decreased need for sleep, inflated self-esteem, over-spending, etc. Bipolar disorder is classified into 2 subtypes: bipolar I and bipolar II. Patients with bipolar I disorder have history of manic or mixed episode whereas patients with bipolar II have history of hypomanic and major depressive episode but never have manic or mixed episode (Udomrat, 2004).

1.1.1 Clinical symptoms

Symptoms of bipolar disorder are classified into two major types, as detailed below (Paholpak, 1999).

1) Depressive episode

Patients in depressive episode are present with signs and symptoms of depression, apathetic mood, and sadness. The patients may have feelings of hopelessness, unworthiness, and heartache. These characterized symptoms distinguish depressive episode from normal feelings of sadness or unhappiness. Patients with depression also have decreased energy, fatigue, and slow work performance thus the symptoms affect their study and work. Moreover, they lack motivation to start a new work.

Vegetative symptoms are also present in patients with bipolar disorder in depressive episode. The symptoms include changes in sleep pattern, as the patients may wake up very early in the morning or have disruptive sleep. Some patients may lose appetite and lose weight; but some may have increased appetite, gain weight and increased need for sleep. The latter type is called atypical depression. Patients' change in appetite and sleep disorder may lead to increased severity of physical illness such as diabetes mellitus, heart disease, hypertension, and chronic obstructive pulmonary disease. Other vegetative symptoms are irregular menstruation, decreased sexual desire and sexual activity, and erectile dysfunction. Patients in depression episode also have cognitive symptoms such as not being able to concentrate or think properly.

Approximately two-thirds of patients in depressive episode had suicidal thoughts and 10 – 15 percent of them succeed in committing suicide. Patients with severe depression usually lack motivation or physical strength to attempt suicide or to take violent action on impulse. Thus the risk of suicide increases when depressive symptoms become milder and the patients have gained physical strength, thus ready to attempt suicide. The suicidal act during this period is called paradoxical suicide and it is a reason for not prescribing too much antidepressant when a patient is discharged from the hospital.

Another psychotic symptoms occurring in depressive episode is anxiety, which is found at a high number of 90 percent of patients in depressive episode. Patients with atypical depression, in particular, always suffer severe anxiety. About 50 percent of patients in depressive episode have depressed moods with diurnal variation, i.e. the symptoms are severe in the morning and the severity decreases in the evening. Some patients are unaware that they are having depression even when they isolate themselves from family, friends, and activities of their interest.

Children with depression will cling on their parents and have symptoms of school phobia. Adolescents with depression may appear to have poor school performance, drug abuse, and antisocial behavior. They may seem to be sexual promiscuous or try to escape from home and school. A record in Thailand reports a 13-year old adolescent who suffered major depression but had stomach pain as a major symptom.

2) Manic episode

Patients in manic episode are present with characteristic symptoms of elevated, expansive, or irritable moods. The elevation of mood is euphoric and can be infectious. Inexperienced psychiatrists who have counter-transference and other people who are not the patients' closed relatives may respond to the patients' symptoms with denial and perceive them as normal. The patients' relatives, however, can confirm that the patients' moods change to an abnormal extent. Manic episode may occur with irritable mood as a major symptom, especially if the patients' ambitious project is objected or denied. Some patients start the manic episode with elevated moods and become irritable at the end of the disease progression.

Patients with mania always have impulsive behavior, including excessive use of alcohol, frequent use of long-distance phone call in the morning, pathological gambling, and getting undressed in public. The patients may use cloths and accessories in vivid color that is not commonly used among normal people and may become careless of small details such as not replacing the telephone after using it, etc. During hospital admission, patients in manic episode may cause complications by testing the ward regulation such as asking to leave the ward, refusing responsibility, manipulating other people, and tending to divide ward staff into groups. Some patients may retreat to so much younger age that they play with their own urine and feces. Patients with mania are usually obsessed with religion, politics, financial matters, sexuality, and persecutory thoughts. The excessive obsession with one subject will lead to delusion about that subject.

Adolescents in manic episode may be misdiagnosed with sociopath or schizophrenia. Manic symptoms in adolescents includes psychotic symptoms, alcohol or drug abuse, suicidal attempts, school problems, philosophical obsession, obsessive-compulsive behavior, complaints of several physical disorders, and antisocial behavior. These symptoms are common in normal adolescents but it is recommended to consider bipolar I disorder if the adolescent has severe and long-term symptoms.

Referring to Lortrakul & Sudnitch (1996), mania is expressed in three ways, as follows:

1) Affective symptoms. Patients have elevated mood, enjoyment, humorous talk, and mockery of other people. They are impetuous, discomfiting, and impulsive in expressing their emotion or desire. They also show inconsideration toward other people or social rules and become irritable or aggressive when they are not allowed to do what they want.

2) Behavioral symptoms. Over-excitement, increased energy, and increased productivity but decreased efficiency is apparent in manic episode. The patients have decreased need for sleep and become extremely sociable, even with strangers. They talk rapidly, become talkative, have increased sexual activity, and overspend.

3) Cognitive symptoms. The patients express high creativity and always think of over-ambitious projects. Inflated self-esteem is present with impaired judgment and denial of other people's opinion. Some patients may show distractibility or flight of ideas. Patients with severe symptoms also have delusions or hallucinations concerning magical power or religious. The delusions or hallucinations may have unearthly characteristics as in schizophrenia (Lortrakul & Sudnitch, 1996).

1.1.2 Causes of Bipolar Disorder

Causes of bipolar disorder are reviewed in details below.

1.1.2.1. Genetic factors

Most studies on factors affecting mood disorders investigated factors related to depression. The pathological causes of mania and bipolar disorder are not definitely identified. Nevertheless, genetic factor is known as a cause of bipolar disorder, as shown in various genetic studies.

1) Family studies. The study in first-degree relatives found increased risk of mood disorders, i.e. depressive disorder, bipolar disorder, and schizoaffective disorder among members of family with history of the disorders. The morbidity rate of bipolar disorder in general population is 1 percent but the rate increases to 10 percent among the members of family with history of bipolar disorder and the morbidity rate of depression is about 10 – 15 percent (Gelder, Mayou, & Cowen, 2001). Simpson and

associates (1993) conducted a study with first-degree relatives in 8 families with history of bipolar I (47 relatives) and in 48 families with bipolar II (219 relatives). They found that 40.4 percent of families with bipolar disorder and 22.4 percent of families with bipolar I disorder had bipolar II. There was only one relative of patients with bipolar II had bipolar I. This result indicates high incidence of bipolar II in families with history of both types of bipolar disorder. In clinical practice, bipolar disorder is frequently found among relatives of patients with bipolar disorder. Nevertheless, there is not a study on the incidence of bipolar disorder among patients' relatives in Thailand. There is only one study reporting the occurrence of bipolar disorder in three generations of one family (Kasartikul, 1986).

2) Twin studies. The studies in twins show that genetic factors contribute to high incidence of bipolar disorder in patients' family, as the incidence of bipolar disorder in twins is much higher than in general population. It is found that the incidence rate of bipolar disorder in monozygotic twins is 60 – 70 percent whereas the rate in dizygotic twins is 20 percent (Gelder, et al., 2001).

3) Molecular studies of genes. Mendel's theory cannot explain the genetic transferring of mood disorders; thus it is believed that the disorders develop from several genes (Gelder, et al., 2001). A number of studies found several gene loci that may have significant role in the development of mood disorders; for example, the loci 18p11, 18p12, 4p6, 21q21, and xq26. Nevertheless, the results are varied, possibly because of difficulties in distinguishing the genes of patients with bipolar disorder from those of patients with other bipolar spectrum disorders (Muller-Oerlinghausen, et al., 2002). Potash and associated (2003) investigated gene loci in 65 families with history of bipolar spectrum disorder and 10 families with bipolar disorder history of which at least 3 members had psychotic features. They found that the gene loci 13q31 and 22q12 were associated with the incidence of bipolar disorder with psychotic features in comparison with all bipolar families.

1.1.2.2. Neurotransmitter factors

Studies of biogenic amines in the brain found low level of norepinephrine in depressive episode and high level in manic episode. It is currently believed that bipolar disorder does not result from the dysfunction of only one neurotransmitter (Loetrakul & Sudnitch, 1996).

1.1.2.3. Other external factors

In addition to genetic factors, which are fundamental factors contributing to increased risk of bipolar disorder, other external factors such as stress in daily life, alternative sleep patterns, and drug or alcohol abuse may also exacerbate the relapse of symptoms or delay the patients' recovery (Hirschfeld, et al., 2002). Johnson and associates (2000) conducted a study on the relationship of life stress and genetic factors with the relapse of symptoms in patients with bipolar disorder. The results show that patients who did not have family history of bipolar disorder experienced stressful events before the exacerbation of symptoms more than those with family history of the illness. This finding indicates that stress has effect on symptom relapse in patients whose illness is not due to genetic factors more than those who have bipolar disorder from genetic influence.

1.2 Progression of bipolar disorder

The symptoms of bipolar disorder may occur for the first time in either childhood or adulthood. The average age of first onset of symptoms is 21 years old (Hirschfeld, et al., 2002). However, when classifying the age into ranges of 5-year intervals, the symptom onset is mostly found at the age range 15 – 19 years, followed by 20 – 24 years (Hirschfeld, et al., 2002). Patients with bipolar I usually have the onset of illness with depressive episode (Kaplan & Sadock, 1997). Bipolar I frequently recurrent as it is found that more than 90 percent of patients will have symptom relapse for the second time after the onset of symptoms (Muller-Oertlinghausen, et al., 2002). Moreover, about 40 – 50 percent of the patients will have relapses of symptoms for the second time within 2 years after the first time (Kaplan & Sadock, 1997). Approximately 40 percent of the patients will suffer illness recurrence more than 10 times in their life (Kaplan & Sadock, 1997). The average duration of manic episode is six months (Gelder, et al., 2001).

1.2.1 Specific identification for severity and progression of illness

The diagnosis on the basis of DSM-IV criteria is usually made on the patients' present signs and symptoms and not based on previous diagnosis that the patients have fully recovered. The following identifications indicate the severity and

progression of illness and could be given after the diagnosis is already made: mild, moderate, severe, in partial remission, in full remission, and prior history.

The specific identifications –mild, moderate, and severe, should be applied only when the patients have all the symptoms stated in the diagnostic criteria. To determine whether the condition is mild, moderate or severe, the examiner needs to consider both number and severity of the symptoms, as well as possible impact on the patients' work and social life. For most disorders, the identification may be based on the following definitions:

Mild: the symptoms are slightly more than what required for making diagnosis and do not cause impact more than a few impairments in work performance or social activities.

Moderate: the symptoms or impairments in doing activities are between "mild" and "severe".

Severe: the present symptoms are much more than the symptoms stated in the diagnostic criteria or very serious and can cause substantial impact on the patient's work or social life.

In partial remission: the patient used to have all symptoms as stated in the diagnostic criteria but have only some residual symptoms at present.

In full remission: the patient is present with no apparent symptom but the illness still needs identification for medical reasons. For example, a person who was diagnosed with bipolar disorder but did not have any symptom in the past three years while receiving lithium may be considered as fully recovered after he or she has been in full remission for a while. The patients who are considered fully recovered will not be coded with previous condition in the present diagnosis. Therefore, several factors need to be taken into consideration in the differentiation of 'in full remission' and 'recovered', including the progression of illness, duration from the last relapse of illness, the whole duration of having the illness, and the need for further assessment or for prevention.

Prior history: For some purposes, the history of all symptoms stated in diagnostic criteria may be beneficial even though the patient has been fully recovered. The past history of this kind of psychiatric illness can be recorded with specific identification and the term prior history (for example, 'Separation Anxiety Disorder,

Prior History' in a person with history of separation anxiety disorder who is not currently ill with any disorder or has symptoms that met the diagnostic criteria of panic disorder).

There are specific criteria for identifying mild, moderate, and severe for the following conditions: mental retardation, conduct disorder, manic episode, and major depressive episode. For in partial remission and in full remission, the following conditions have specific criteria: manic episode, major depressive episode, and substance dependence (Sudnitch & Lortrakool, 1998).

For this present research, the patients under investigation were in partial remission because the patients in this phase do not have too many symptoms and are not severely ill thus they could respond to the interview and cooperate with the study. The following instruments were used to assess the severity of symptoms in this study:

1) Montgomery-Asberg Depressive Rating Scale (MARDS). This scale was developed by Montgomery and Asberg (1979) and was translated into Thai with back-translation method by linguists (Kongsakon, 2003).

The MARDS is highly reliable and sensitive to changes in severity of depressive symptoms (Montgomery & Asberg, 1979). The scale is composed of 10 questions comprising 1. apparent sadness, 2. reported sadness, 3. internal tension, 4. reduced sleep, 5. reduced appetite, 6. concentration difficulties, 7. lassitude, 8. inability to feel, 9. pessimistic thoughts, and 10. suicidal thoughts.

Ronnachai Kongsakon (2003) translated and back-translated the MADRS into Thai and make some alterations to make it suitable for Thai people. The translated MADRS was submitted to five experts for an examination of content validity. It was found that the item correlation coefficient for each question item was between 0.6 and 1.00. Every item with coefficient higher than 0.6 is considered having content validity. The standardized Cronbach's alpha coefficient of the whole instrument was 0.8048. Each question item is presented with a rating scale ranging from 0 – 6 and the possible total score ranges from 0-60 points. The score more than 21 indicates major depressive disorder. It is stated that the Thai version of MADRS is accurate and simple thus suitable for the application in clinical practice. Other healthcare professionals who are not psychiatrists, such as nurses or clinical psychologists, should be able to use this instrument in their work or apply to research.

In full remission, that was defined as a MADRS total score ≤ 7 (Montgomery and ASberg, 1979). But, the samples of this study were bipolar patients in partial to full remission. Therefore, researcher proposed to define remission in bipolar disorder as patients having a total score of ≤ 11 (Hawley, Sivakumaran, & Hertfordshire Neuroscience Research Group, 2002; Zimmerman, Posternak, & Chelminski, 2004).

2) Young Mania Rating Scale (YMRS). This instrument was developed by Young and associates (1978) and was translated into Thai with back-translation method by linguists (Kongsakon, 2005).

The YMRS was developed by Young and associates (1978) for measuring manic symptoms in patients with bipolar disorder. The correlation between the total scores on the MRS was 0.93 and range from 0.66 for item 9, disruptive behavior, to 0.95 for item 4, sleep. It consists of 11 question items, comprising 1. elevated mood, 2. increased motor activity energy, 3. sexual interest, 4. sleep, 5. irritability, 6. speech (rate and amount), 7. language and thought disorder, 8. content, 9. disruptive-aggressive behavior, 10. appearance, and 11. insight.

Ronnachai Kongsakon (2005) had the YMRS translated into Thai with back-translation method and made some alteration to suit Thai people. The Thai YMRS was then submitted to five experts for the examination of content validity. The item correlation coefficient was found higher than 0.6 and the reliability on an interrater test and a Pearson's correlation of 0.87. The standardized Cronbach's alpha coefficient for the whole questionnaire was 0.89. The rating scale of the item number 1, 2, 3, 4, 7, 10, and 11 was ranged from 0 to 4 and the scale of the item number 5, 6, 8, and 9 was ranged from 0 to 8 points. Thus the total score ranges from 0 to 60 The average scores on the YMRS were 13 for minimal severity, 20 for mild, 26 for moderate, and 38 for severe.

In full remission, that was defined as a YMRS total score ≤ 7 (Young, et al., 1978). But, the samples of this study were bipolar patients in partial to full remission. Therefore, researcher proposed to define remission in bipolar disorder as patients having a total score of ≤ 10 (Robb, Cook, Devins, Young, & Joffe, 1997; Yen, Chung, & Chen, 2002).

1.3 Treatment of bipolar disorder

1.3.1. Medication treatment

Patients with bipolar disorder may have symptomatic changes into manic or depressive episode. When they recover from the symptoms, some patients may still receive treatment for long-term prevention.

1.3.1.1 Acute treatment

a. Manic episode

Patients with an exacerbation of mania could be treated according to the severity of symptoms as detailed below.

1) Patients with mild symptoms, e.g. talkative, elevated mood, and being able to control themselves. These patients are usually treated as outpatients. The key medication is lithium, starting from 300 mg twice a day. The patients will have follow-up appointments and have blood examination for drug level on 5 – 7 days after receiving the medication, when the drug level is stable. The medication dose will then be adjusted to maintain the level between 0.8 and 1.2 mEq/L. Patients with mixed, dysphoric or rapid cycling symptoms may receive valproate at the beginning. They should also receive clonazepam 0.5 – 2.0 mg at bedtime as good sleep can help relieving the symptoms.

2) Patients with moderate symptoms, comprising inability to control one's self, disruptive behavior, and irritability. These symptoms need to be rapidly under control. The patients should receive a psychotic drug in addition to lithium, as the psychotic drug will control their behavior from the beginning of treatment. The recommended psychotic drug is haloperidol 6 – 20 mg/day and lithium should be prescribed at the dose lower than 1.0 mEq/L. The psychotic drug should be gradually decreased when the manic symptoms are lessened.

3) Patients with severe symptoms, i.e. extremely excited, aggressive, and uncontrollable or having psychotic symptoms. Treatment is needed to calm these patients down as soon as possible. The patients should receive valproate in combination with a psychotic drug from the beginning of treatment because the dose of valproate can be increased quickly. In this case, it is important to prescribed psychotic drugs and the patients may need drug injection occasionally. The patients may also receive high dose of benzodiazepine such as clonazepam 4 – 6 mg/day. This

combination helps in avoiding treatment with high dose of psychotic drugs, which have substantial side effects. If the condition is not improved in a week, the psychotic drug should be changed to different kind. When the patients' symptoms have subsided, the psychotic drug should be reduced until the patients do not need it anymore. When the patients have improved condition, they should receive continuation treatment for another 4 – 6 months before adjusting the medication dose until the treatment can be stopped in the next 1 – 2 months.

4) Patient not responding to the treatment. If the patient is not improved after receiving adequate doses of lithium for 1–2 weeks, valproate or other anticonvulsants such as carbamazepine should be prescribed in addition to the present treatment. Valproate is increasingly used in combination with lithium lately because they have little drug interaction thus the combination treatment is fairly safe and induces little side effects. If the patients well respond to the treatment and the symptoms are stabilized, the dose of lithium should be reduced. Symptom recurrence after the drug reduction indicates the patients' need for combination treatment. Normal condition after the reduction of lithium indicates good response to single treatment with valproate; thus lithium can be gradually reduced until it is finally stopped. For patients who still do not respond to the aforementioned treatment, carbamazepine may be added into the regime.

b. Depressive episode

Among mood stabilizers, lithium has distinctive anti-depressive effect more than others. It is the first drug of choice for the treatment of bipolar depression, followed by valproate and lamotrigine, respectively. For patients who have recurrence of depression whilst receiving a mood stabilizer, the drug may be increased to the maximum dose for non-severe case. If the symptoms are not relieved after two weeks and the patients already receive anticonvulsant, lithium should be prescribed in addition; on the other hand, if the patient already receives lithium, valproate should be combined to current treatment. For patients whose symptoms are not relieved after 2 – 4 weeks of treatment or have severe depression from the beginning, antidepressant should be added to the treatment. The widely used antidepressants are drugs in the SSRI group.

Patients with psychotic symptoms should receive antipsychotic drugs in addition to other medications. The psychotic drugs commonly used are those with high potency. When the symptoms are lessened, antidepressants should be gradually reduced for stopped 2 - 6 months until it can be stopped eventually. Generally, antidepressants will be given for not longer than three months after the symptoms have been relieved and the patients will receive lithium only afterward. Long-term use of antidepressants may activate mania or induce more frequent relapse of symptoms.

1.3.1.2 Long-term prevention

After 6-month treatment, it should be considered whether the patient needs a treatment for long-term prevention. Preventive drugs are usually prescribed for patients who have had recurrence of symptoms twice, especially in case of recurrence within a period of 3-4 years. Nevertheless, preventive drugs may be prescribed to patients who have symptoms for the first time if there are other indicating factors. The preventive drugs are usually prescribed for patients with the following characteristics: 1. having rapid onset of symptoms, 2. suffering severe condition with psychotic symptoms, 3. having symptoms without definite triggers, and 4. having onset of symptoms at young age, especially those with family history of bipolar disorder. Nowadays, it is definitely known that, in addition to prevention of illness recurrence, lithium also decreases the incidence of suicide in patients with bipolar disorder. The level of lithium for preventive effect is between 0.6 and 0.8 mEq/L. The recurrence of illness may be more frequent if the drug dose is lower than the required level or the patients may have subsyndromal depression.

It is found that carbamazepine has preventive effect less than lithium and usually needs combination treatment. Valproate has preventive effect similar to lithium but it can control subsyndromal depression better than lithium. The prescription of lithium for preventive treatment should last longer than two years, which is the duration of frequent recurrence and high mortality rate. For patients who well respond to preventive drugs and suffer very little side effects, the preventive treatment should be continued for three years before gradual reduction of medication for 1 – 2 months because rapid cessation of drug treatment may trigger more frequent recurrence of illness (Lortrakul, 2004).

1.3.2 Psychosocial treatment

Psychosocial treatment for patients with bipolar disorder aims to reduce patients' distress, to improve their functioning during the period of remission, and to reduce the frequency of illness recurrence in the future. The treatment is classified into psychosocial treatment for depressive or manic episode, psychotherapy for depressive episode and psychotherapy for manic episode.

Psychosocial interventions during depressive or manic episode are reviewed below.

1.3.2.1. Inpatient family intervention. This intervention is conducted with the patients and their families. The objectives of treatment are to encourage patients and family's acceptance of illness with bipolar disorder, identify precipitating stress which may trigger the symptoms again in the future (both inside and outside the family), look for family interactions that may induce stress to the patient, make a plan to manage or relieve stress in the future, and inform the family about the need for continuation treatment after hospital discharge.

1.3.2.2. Behavioral family management. This intervention consists of psychoeducation, communication skills training, and problem-solving skills training.

1.3.2.3. Family therapy and psychoeducation. This treatment can reduce family separations and enhance family members' functioning. It also increases rate of full recovery and decreases hospital re-admission.

1.3.2.4. Others, e.g. cognitive-behavioral therapy, interpersonal and social rhythm therapy.

Psychotherapies for depressive episode could be the same interventions as psychosocial treatment for major depressive disorder. At least two interventions are recommended: cognitive-behavioral therapy (CBT) and interpersonal psychotherapy (IPT). However, there are not many studies on the effectiveness of these interventions in patients with bipolar disorder in major depressive episode.

Psychotherapies for manic episode emphasize restricting patients' behavior by isolation. This method is not only appropriate for patients who may be harmful to themselves and other people but also helps reducing external triggers (Sirisuraphanon & Ditsayavanit, 1999).

1.4 Impacts of bipolar disorder

Bipolar disorder is a severe illness that can be recurrent several times in a patient's lifetime. Moreover, the patient may have residual symptoms and disabilities from the illness. Therefore, bipolar disorder can cause substantial losses and impacts on the patients, their families and the national economy.

1.4.1. Impacts on patients. Patients with bipolar disorder are at increased risk of suicide by 2 – 3 times of general people. Approximately 10 – 20 percent of patients with bipolar disorder died from suicide and about one-third of them attempt suicide at least once in their lifetime (Muller-Oerlinghausen, et al., 2002). Suicidal attempts usually occur during mixed or depressive episode (Hieschfeld, et al., 2002). During mania, the patients may have inappropriate judgment and behavior that lead to negative outcome because of their affective disorder. For instance, they may have spending sprees, imprudently invest on something, have arguments, or excessively involve in sexual activity, as reported in a record of Thai patients (Kanokwutti, et al., 1989). Moreover, it is found that patients with bipolar disorder use addictive substance at a high rate of 60 percent (Reus, 2000). For alcohol addiction, it is found that both male and female patients are at higher risk of alcoholism than general population with the higher odd ratio in female (7.35 in female and 2.77 in male) (Frye, et al., 2003).

1.4.2. Impacts on family Patients with bipolar disorder usually have psychosocial morbidity that has impact on their interpersonal relationships, including the relationship with spouse, caregiver, and family (Reinares, Colom, Martinez-Aran, Benabarre, & Vieta, 2002). The rate of divorce among patients with bipolar disorder is about 2 – 3 times higher than in general population (Hirschfeld, et al., 2002). It is found that more than 90 percent of closed persons who care for the patients demonstrate stress at moderate to high level (Reinares, et al., 2002). The most stressful situations involve the management of deviant sexual behavior, concerns about the patients' future, and management of severe symptoms (Sapcharoen, 1999). In addition, relatives who care for patients with bipolar disorder report feeling of more burdens in comparison with caregivers of patients with schizophrenia, even though healthcare professionals reported no difference in caring patients with these two disorders (Mueser, Webb, Pfeiffer, Gladis, & Levinson, 1996).

1.4.3. Social impact Mood changes in patients with bipolar disorder have effect on their thoughts, decision-making, and behavior. The changes may lead to aggressive behavior or illegal action thus causing social problems. Pliszka and associates (2000) conducted a study in adolescent population in the US who committed criminal acts and found that 20 percent of the adolescents had bipolar disorder. Moreover, a report of bipolar disorder in prisoners found that the incidence rate of bipolar disorder among prisoners is six times higher than the incidence in general population (Quanbeck, Frye, & Altshuler, 2003). A study of psychiatric illness among prisoners in Thailand also found mania in 1.4 percent of the prisoners (Kraipasrpong, 2002).

1.4.4. Economic impact Because of the high rate of suicide and disabilities among patients with bipolar disorder, in addition to substantial burden to the family, bipolar disorder was ranked number six among all illnesses causing loss of well-being from an early death or disability adjusted life years (DALY) in the population aged 15 – 44 years by the World Health Organization in 1990 (Wood, 2000). A study in nearly 400,000 employers in the US in 1999 revealed that bipolar disorder is in the top ten of psychiatric disorders that cause substantial burden from cost of treatment and loss of productivity. It is also reported that bipolar disorder, which requires continuous care, has the highest cost of treatment. Moreover, the costs of treatment for depression and mania were at the third and the eighth rank, respectively (Goetzel, Hawkins, Ozminkowski, & Wang, 2003). The cost of treatment for bipolar disorder in the US in 1991 was estimated at 45,200 US dollars per patient (Kleinmam, Lowin, Flood, Gandhi, Edgell, & Revicki, 2003).

2. Quality of Life

2.1 Meanings of quality of life

The term “quality of life” has been widely used for a long time but the concept is not yet fully developed and the term is not yet unanimously defined. Quality of life is a multi-dimensional concept, meaning that it is composed of several constituents or dimensions. It can be classified into two major types: non-health related quality of life (NHRQOL) and health-related quality of life (HRQOL). Every individual is constituted of these two types of quality of life but the dominating type may differ in each individual. Generally, the HRQOL may not be very important in healthy persons; but it is very important in ill persons and has direct effect on them (Spilker & Revicki, 1996). Therefore, the concept of HRQOL is applied for the evaluation of medical outcome and has become an intervention with significant role nowadays. In 1988, the American College of Physicians stated that the key principle of medical services is to enhance patients’ ability in daily activity performance and to maintain that condition. In addition, the services also include the evaluation of impact of patients’ illness on their physical, mental, and psychosocial health. The evaluation of medical outcome, therefore, does not only focus on clinical outcome but also includes the patients’ evaluation of outcome from their satisfaction toward health condition (Fayers & Machin, 2000; Coons, 2002).

Quality of life is an abstract term with wide and complex meaning. The definition of quality of life is varied, depending on the concept and objectives of the concerning discipline (Jubjai, 1997). Previous studies have shown that individuals evaluate quality of life differently, depending on their education level, occupation, society, religion, culture, environment, and life experience (Ferrans & Power, 1993). At present, researchers in psychiatry and mental health, as well as general public health, have become increasingly interested in the study of quality of life. Various definitions and concepts are given to the term quality of life; for instance, well-being, happiness, life satisfaction, etc. (Srichairattanakul, 2000).

Hence it is difficult to give a definite and accurate meaning of quality of life. Thai Dictionary of the Royal Institute (B.E. 2542) defines quality of life as a compound word with two major constituents: quality and life. Quality means positive and outstanding characteristics of a person or an object. Life means one's being. Therefore, quality of life means the characteristics of a person's well-being.

Padilla and associates (1983) define quality of life as one's perception of life satisfaction that changes according to his or her health condition. This could be measured from various body functioning, attitude toward health, life satisfaction, and the sense of being socially supported.

Zhan (1992) wrote that quality of life is individuals' level of life satisfaction, which is based on their living and life experience, including the socioeconomic and health status.

According to Ferrans and Power (1985; 1992; 1993), quality of life is the feeling of happiness derived from satisfaction or dissatisfaction of each component that is significant for an individual, according to his or her being. The feeling is perceived and determined by that individual.

The World Health Organization defines quality of life as persons' perception of their life within the cultural context and the value of their society. It is associated with the persons' goal, expectation, standard, and interests and will appear in forms of physical health, mental condition, level of dependency, social and environmental interaction, and the persons' belief.

Referring to Orem (2001), quality of life is the perception of wellness in a person's being. The wellness is perceived from the person's experience, satisfaction, enjoyment, and happiness in various domains, comprising spiritual aspect, life determination, and individuality. Quality of life concerns health, success, and life resources. A person can have good quality of life even if he or she has impairments in body structure and functioning.

Ware (1993) defines quality of life with wider meaning in reference to the HRQOL. According to Ware, quality of life reflects physical and mental health, role, and well-being. The HRQOL can be evaluated in four domains: 1) behavioral function, 2) perceived well-being, 3) social and role disability, and 4) personal evaluations (perceptions) of health in general. Behavioral function is usually evaluated

from health limitations and/or bodily pain, social role, and activity performances that are noticeable such as walking, and doing daily activities. Perceived well-being is an internal factor and has specific characteristics for each individual thus it is undetectable from behavior only. Therefore, perceived well-being is measured from the evaluation of level and frequency of the person's feeling toward mental health, pain, and vitality (energy and fatigue). Personal evaluations (perceptions) of health in general comprise the evaluation of present health status and impact from symptoms of illness, including other health conditions that could not clearly identified from the previous three domains.

The present research used Ware's definition of quality of life (Ware, 1993). Hence quality of life in this research refers to the level of perceived life satisfaction regarding physical and mental health of patients with bipolar disorder. Quality of life is composed of the following 8 domains:

Domain 1: Physical functioning, referring to physical health that limits the patients' performance of activities.

Domain 2: Role limitation due to physical problem, or role-physical, referring to general role that is limited from physical health problems that are obstacles to work or housework performance.

Domain 3: Role limitation due to emotional problems, or role-emotional, referring to emotional condition that limits a person's ability to do daily activities.

Domain 4: Social role limitation due to physical and emotional problems, or social function, referring to physical or emotional condition that limits the person's ability to participate in social activities.

Domain 5: Bodily pain, referring to physical pain due to health condition such as headache, body pain, joint pain, that disturb normal functioning of the body.

Domain 6: Mental health, referring to feelings such as anxiety and depressed or calm, comfortable and pleasant.

Domain 7: Vitality, referring to alertness and strength to do anything as desire or feeling of fatigue, exhaustion or weakness.

Domain 8: General health perception, referring to the perception of health condition like other people or being ill.

2.2 Quality of life of patients with bipolar disorder

Each illness has different symptoms and impact on the patients thus the evaluation of quality of life in patients with different illness should be consistent with its impact on patients' life in various aspects. Bipolar disorder has substantial impact in physical, psychological, economic, social, and national aspects because it is a chronic psychiatric disorder. There are studies on quality of life of patients with bipolar disorder in comparison with patients with other illness, as reviewed below.

2.2.1 Comparison with the quality of life of general population and of patients with chronic physical illness.

Quality of life of patients with bipolar disorder is mostly poorer than that of general population and of patients with chronic physical illness. Comparative studies show that patients with bipolar disorder have poorer quality of life than general population with statistical significance (Arnold, et al., 2000; Cooke, et al., 1996). A comparison of quality of life between patients with bipolar disorder and patients with chronic backache found that even though patients with bipolar disorder had significantly better quality of life in physical and social functioning domain, the score of quality of life regarding mental and general health was not different from that of patients with chronic backache (Arnold, et al., 2000). A comparative study of quality of life in patients with bipolar disorder and patients with chronic renal failure found significantly poorer quality of life in patients with bipolar disorder (Atkinson, et al., 1997). A comparative study of quality of life between patients with bipolar disorder and patients with eight chronic medical conditions found higher score of quality of life in physical and role function domains among patients with bipolar disorder. Moreover, patients with bipolar disorder had poorer quality of life in general health perception, social functioning, and mental health domains with statistical significance (Cooke, et al., 1996). The score of quality of life in patients with bipolar disorder is not different from the score found in patients with multiple sclerosis. Patients with bipolar disorder, however, have higher score of quality of life than patients with arthritis (Robb, et al., 1997).

2.2.2 Comparison with the quality of life of other psychiatric patients

The review of literature found comparative studies of quality of life between patients with bipolar disorder and patients with depressive disorder and schizophrenia. It was reported that the impairment in quality of life of patients with bipolar disorder is not different from that of patients with depressive disorder; but patients with bipolar disorder have significantly poorer quality of life than patients with schizophrenia (Atkinson, et al., 1997). A number of studies comparing quality of life between patients with bipolar disorder and patients with depressive disorder found no significant difference in quality of life of these patients (Marneros, et al., 1989; Harrow, et al., 1990; Goldberg, et al., 1995; Cooke, et al., 1996; Benazzi, et al., 1997; Russo, et al., 1997; Benazzi, et al., 1999; Bartels, et al., 2000). Only one study reported significantly lower score of quality of life in patients with bipolar disorder in comparison with the score in patients with depressive disorder (Bromet, et al., 1996).

Comparative studies of quality of life in patients with bipolar disorder and patients with schizophrenia found various levels of quality of life. Some studies reported significantly lower score in patients with bipolar disorder (Atkinson, 1997; Russo, 1997; Dickerson, 2000); but some found that patients with bipolar disorder had significantly higher score of quality of life than patients with schizophrenia (Bellack, et al., 1989; Grossman, et al., 1991; Bromet, et al., 1996; Bartels, et al., 1997; Tibbo, et al., 2000; Martine-Aran, et al., 2000). It is evident that the quality of life of patients with bipolar disorder is mostly poorer than the quality of life of general people and of patients with chronic physical and mental illness.

2.2.3 Comparison of quality of life in patients with bipolar disorder in different phases

The comparison of quality of life in different phases of bipolar disorder found that patients with bipolar I had poorer quality of life than patients with bipolar II in social functioning and mental health domains (Cooke, et al., 1996). It is also found that depression has more effect on the patients' quality of life than mania (MacQueen, et al., 2000). Moreover, patients in manic phase have poorer quality of life than patients in euthymic phase (Vojta, et al., 2001). Patients with bipolar depression are found to have poorer quality of life than those with unipolar depression (Yatham, et al., 2004).

2.3 Assessment of quality of life

Quality of life mostly involves a person's perception; therefore, a good measure of quality of life should be self-reported. The assessment of HRQOL can be classified into two types, as detailed below (McSweeney & Creer, 1995).

2.3.1. Assessment of general quality of life. The measure of general quality of life does not specifically focus on the impact of certain illness or disease. It can be used with any group of people in any circumstance despite differences in demographic characteristics, cultures, diseases, and care delivery. This type of measure can be used to assess the quality of life in people who never have quality of life assessment or to evaluate the outcome of an intervention. The measures used for the assessment of general quality of life are mostly neutral thus the results are comparable. Examples of this type of measures are Medical Outcome Study 36-item Short Form (SF-36), Sickness Impact Profile (SIP), and Nottingham Health Profile (NHP), etc.

2.3.2. Assessment of disease/ illness-specific quality of life. This type of quality of life measure is specified to patients who are diagnosed with certain disease. It is believed that the impact of each disease on each domain of quality of life varies. The disease/illness-specific quality of life measure is used to evaluate the patients' changes and responses to an intervention that is important to the being of certain group of people. The assessment with disease-specific measures is easy for the respondents to give accurate and simple answer because it concerns their present experience. These measures are also useful for the evaluation of illness progression. Disease-specific quality of life measures include the Functional Assessment of Cancer Therapy-General (FACT-G) for patients with cancer, Quality of life in Epilepsy (QOLIE-89) for patients with epilepsy, Asthma Quality of Life Questionnaire (AQLQ) for patients with asthma, Pediatric Asthma Quality of Life Questionnaire (PAQLQ) for children with asthma, and HIV/AIDS-Targeted Quality of Life (HAT-QOL) Instrument for patients with HIV positive.

Quality of life may be assessed from the structure of quality of life, as follows:

1) Single-dimensional measure of quality of life. This measure was widely used in the past. A person will assess his or her quality of life with a single question that concludes overall quality of life. The measure is accepted as reliable and valid. An example of this type is the quality of life measure designed by Cantril (1985 cited in Olesen, 1990).

2) Multi-dimensional measure of quality of life The quality of life in this regard depends on multiple dimensions that constitute quality of life. This concept is applied to the assessment of quality of life in ill persons as it is believed to measure the patients' quality of life more accurately to reality than the single-dimensional measure (Burckhardt et al., 1989; Ferrans & Powers, 1992; Padilla & Grant, 1985; Zhan, 1992)

Nevertheless, quality of life is generally perceived as life satisfaction, which reflects persons' feeling toward the responses to their needs on the basis of their experience. That is the most important dimension. In psychiatry, quality of life is hardly evaluated in clinical practice for the following reasons, according to Satorius (1997):

- Symptoms of mental illness may appear like poor quality of life, especially the symptoms of depressive illness, anxiety disorder, and some personality disorders.
- Mental illness with severe characteristics may induce impairments that complicate the communication between the patients and the assessor; for instance, patients with neurological disorder like aphasia, or psychiatric patients with cognitive impairment.
- Psychotic illness is usually a stigma in patients' life that remains for a lifetime even if the symptoms have been relieved. This can be a key reason for patients' bad life experience.
- The side effects of treatment for severe psychotic illness can be an obstacle to measuring the relation between psychiatric illness with specific characteristics and quality of life. Moreover, the complications from drug side effects may cause secondary psychiatric disorder such as depressive disorder after tardive dyskinesia or short-term memory loss after electro-therapy.

-Cultural differences that have effects on the type and severity of mental illness and residual symptoms make it difficult to collect data and conduct a study about quality of life.

- In some disorder such as schizophrenia with paranoid, hallucination or curiosity, the patients may give distorted responses. It could be impossible to measure quality of life from the patient's report.

Despite difficulties in the assessment of quality of life in patients with mental disorder, the assessment is necessary because the intervention for treatment of mental disorder is now greatly developed with improved practicality and effectiveness. Moreover, the rehabilitation is increasingly significant in improving the patients' quality of life.

Lehman (1983) concluded the assessment of quality of life in patients with mental disorder in clinical practice as listed below.

- The changes in psychotic symptoms are associated with changes in quality of life.

- In the US, experiences concerning quality of life are associated with patients' gender and race.

- Symptoms and experiences concerning quality of life are important and have roles in the prediction of hospital readmission.

- Objective life condition and life satisfaction are mostly associated with each other.

The quality of life measure that is widely used is the Short Form Health Survey -36 (SF-36), which is examined and accepted as a standard measure (Ware, 1993). This measure is designed and developed by the Medical Outcome Trust of the US and is translated to use in the evaluation of HRQOL in more than 10 countries (Anderson et al., 1996). It is a brief and simple questionnaire (Ware & Sherbourne, 1992). The measure covers physical health, mental health, and social functioning in general population, as well as in patients with various disease; for instance, patients with diabetes mellitus (Nerenz et al., 1992), patients undergoing knee replacement surgery (Kantz et al., 1992), patients receiving renal dialysis (Kurtin et al., 1992), patients with cancer (Given et al., 2002), patients with schizophrenia (Boes et al., 1997), and

patients with bipolar disorder (Thunedborg, et al, 1995; Revicki, et al.,1997; Leidy, et al., 1998; Arnold, et al., 2000).

The SF-36 contains the total number of 36 question items, divided into 9 domains. There are multi-item scales in 8 domains, asking the respondent to evaluate their ability in the past month. The number of questions in each domain varies. Domain 1- physical functioning, has 10 questions; domain 2 – role limitation due to physical problems, role-physical, 4 questions; domain 3 – role limitation due to emotional problems, role-emotional, 3 questions; domain 4 – social role limitation due to physical and emotional problems, social function, 2 questions; domain 5 – bodily pain, 2 questions; domain 6 – mental health, 5 questions; domain 7 – vitality, 4 questions; and domain 8 – general health perception, 5 questions. Domain 9 in this measure is a single-item scale, asking about reported health transition. The SF-36 has several advantages such as well valid and reliable, applicable to every population, and practical with any techniques either self-report, face-to-face interview, or telephone interview. Moreover, it takes only 5 - 10 minutes to complete the measurement (Mchorney, Ware, & Raczek, 1993; 1994).

The Short Form 36 Health Survey Thai version (SF36), which is used in Thailand, was developed by Ronnachai Kongsakon (1999). It was used to measure quality of life in 100 psychiatric patients. The SF36 was translated into Thai and back-translated and was later submitted to five experts for the examination of content validity. The trial of this instrument resulted in Cronbach's alpha coefficient 0.92. Angkharn Srichairattanakool (2000) later used this measure to examine quality of life of 43 patients with acute major depressive disorder and 174 patients with chronic depressive disorder. The SF-36 is 36-item questionnaire but only 35 questions are directly associated with quality of life. Another question – the item no.2, asks for reported health transition, thus the score is excluded from the calculation. The total 35 questions directly concerned with quality of life are divided into 8 domains, as listed below.

1. General health perception: 5 items – No. 1, 33, 34, 35, 36.
2. Physical functioning: 10 items – No. 3,4,5,6,7,8,9,10,11,12
3. Role limitation due to physical problems: 4 items – No. 13, 14, 15, 16.
4. Bodily pain: 2 items – No. 21 and 22.

5. Social functioning: 2 items – No. 20 and 32.
6. Mental health: 5 items - No. 24, 25, 26, 28, 30.
7. Role limitation due to emotional problems: 3 items - No. 17, 18, 19.
8. Vitality: 4 items – No. 23, 27, 29, 31.

The score of each domain ranges from 0 to 100. High score reflects good quality of life and low score reflects poorer quality of life. Question No. 2, which asks about reported health transition, will be excluded from the calculation of total score of quality of life. The result from the question No. 2 will be calculated for the percentage of each response to this item.

3. Self-management and Symptom Self-management

3.1 Self-management

The concept of self-management has been developed by experts in various disciplines, including nurses, doctors, physiotherapists, psychologists, etc. The review of related literature found several definitions of self-management, as reviewed below.

Tobin and associates (1986) wrote that self-management is a protective action or performance of therapeutic activities for health care that aims to promote self-control. The final target of self-management is to reduce morbidity and mortality rate, and to promote quality of life.

According to Kanfer (1991), self-management is the process of self-control and monitoring of changed behavior on the basis of cognitive process and learning from past experience. The obtained information is then evaluated to make decision in response or to induce the desired behavior.

Edworthy (2000) wrote that self-management is the process in which the patient accepts and take responsibility for behavior modification with knowledge about the disease and treatment. The process is developed along with good relationship between the patient and the health care team.

Glasgow and associates (2002) stated that self-management is a specific feature of chronic illness management. However, it is frequently overlooked or insufficiently acknowledged because it involved certain capability that needs to be actually applied into practice.

According to Supaporn Duangpaeng (2002), self-management is one of the learning process in which individuals will learn about their illness and manage themselves from the accumulated experience. Self-management is the combination of individuals' cognitive and behavioral skills in order to develop expertise in managing their illness.

Dorsey and Murdaugh (2003) wrote that self-management is a combination of therapeutic behavior and practice to seek supportive resources for the improvement of health status and quality of life.

Bodenheimer and associates (2002, cited in Koch et al., 2004) proposed that self-management is most important for best living with chronic illness.

Lorig Kate (2004) defines self-management as an individual's ability to live with chronic illness. That ability involves self-esteem in combination with medical management, role management, and emotional management concerning the illness.

In conclusion, self-management is the process in which patients apply knowledge from self-learning, in addition to past experience of self-management, to live with chronic illness with well-being and to improve their quality of life.

Kanfer (1980, 1991) introduces the concept of self-management to enhance understanding about mental process in the development of self-control. This concept was based on the belief that each person has potential for seeking help and making effort in changing problematic situations with self-management. As a result, that person will learn new behavior within the boundary of self-control. Kanfer's concept was a chain of reaction automatically built from the learning of past experience stored long-term memory and subsequently modified into spontaneous response; thus, a person can conduct daily activities with no need to make decision or to concentrate on the action.

Nevertheless, the spontaneous behaviors are not applicable to every situation and sometimes people need to change their behavior in response to the stimulating circumstance. They need to apply self-control process to modify their behavior by using cognitive process and careful planning. Self-management, therefore, is a process deriving from past experience learning, social believe and physical environment that contribute to one's self control. To develop self-management, a person needs to use self-regulation process, which consists of three steps as follows:

1) Self-monitoring or self-observation. This step is an essential beginning of self-control process because it is the step in which a person needs to pay attention to his/ her behaviors and to carefully monitor the behaviors in aspects of thoughts, emotion and others, as well as the stimulating circumstance. Past experience will motivate the person to change the behavior that need to be change, to anticipate the outcomes of change and to compare the behavior with standard criteria. A person with inappropriate self-monitoring may have unrealistic standard and may not achieve self-control.

2) Self-evaluation. In this step, information obtained from self-monitoring will be compared criteria set by the person or the society in order to evaluate whether the behaviors should be maintained or discontinued.

3) Self-reinforcement. After comparing his/ her behavior with the standard criteria, the person will have both positive and negative reactions, which affect the person to maintain the behavior, thus strengthening it. Negative reaction, in contrast, will inhibit the behavior, leading to modification of behavior. Positive reaction, therefore, is an important motivation for the continuation of behavior. The motivation may be enhanced with support from other people such as family, friend or healthcare professionals.

Self-management is a self-control process that emphasizes the significance of self-responsibility. The program for promotion of self-management organized by health care professionals just revives patients' experience and encourages them to be responsible for their behavior in managing the environment or in making plan. Model for helping the patients may aim at three outcomes such as 1) to help the client acquire more effective interpersonal, cognitive and emotional behaviors 2) to alter the client's perceptions and evaluative attitudes of problematic situations and 3) to either change a stress-inducting or hostile environment or learn to cope with it by accepting that it is inevitable. Health care professional who assist patients to develop self-management require three significant strategies comprising 1) motivating the patients to be satisfied with the self-management program, 2) training self-management regarding modification of specific behavior and 3) giving support for the maintenance of certain behavior by providing reinforcement to enhance patients' effort in achieving self-management. Most importantly, the health care professionals have to establish rapport

with the patients at the beginning of the therapy to ensure their cooperation in the self-management program.

Kanfer's concept is widely accepted in current nursing practice and it has been developed to promote self-management among patients with cognitive/ behavioral techniques such as sensitization and desensitization, cognitive restructuring, and training to methods of physiological control. Patients who had been trained with self-management program demonstrated changes in physical and cognitive aspects and they developed cognitive and emotional behaviors that help them in improving self-management (Nakagawa-Kogan & Betrus, 1984: 54-60).

Kanfer's concept is applicable to the promotion of symptom self-management, by utilizing self-regulation process comprising self-monitoring, self-evaluation and self-reinforcement to induce reactions that require cognitive and learning process, decision making and support from other people such as family friends and health care professionals. The support is a motivation and reinforcement for patients to change undesired behavior and maintain desired behavior. Likewise, for the promotion of symptom self-management inpatients with bipolar disorder, psychiatric nurses and other staff in the health care team need to understand basis factors relating with self-management process. That factor is self-monitoring for early symptom to be used as essential information for self-evaluation, leading to decision making about the management of symptom and support from other people. The review of literature found researches on self-management in psychiatric patients, as summarized below.

Pollack (1996) conducted a study on self-management in 33 patients with bipolar disorder and found that the hospitalized patients expressed needs for information about self-management in six domains: self-management of the disorder and symptoms, understanding of the illness characteristics, management of daily living, social life, and personal and interpersonal relationship. This information will lead to self-management during symptom relapse.

Pollack (1999) conducted further study on the satisfaction of patients with bipolar disorder by organizing an interaction group and a self-management group for 110 patients and found that patients' satisfaction toward the two interventions did not differ.

Stevens, et al. (2005) investigated self-management program for the prevention of illness recurrence in patients with schizophrenia and bipolar disorder. It was found that self-management can prevent illness recurrence in psychiatric patients.

3.2 Symptom self-management

There are several studies on symptom management to improve the effectiveness in patients with chronic physical illness. The term 'symptom management' is defined as a process of symptom experience, symptom management strategies, and symptom outcomes. Symptom management depends on both internal and external factors related with the patients. The factors influential to symptom management are personal factors, health and illness factors, and environmental factors (Dodd et al., 2001). Teel, Meek, McNamara, & Watson (1996) define symptom management as behavioral outcome of the present symptoms. Symptom management depends on one's feeling toward symptom experience: if the person is familiar with the symptom or has good attitude toward symptom management, he or she will use the same symptom management strategy; on the other hand, if the person is unfamiliar with the symptom or has negative attitude toward symptom management, he or she will not use the same strategy again. Haworth and Dluhy (2001) wrote that symptom management needs the person's understanding of symptom experience and the explanation about that symptom. Nurses have significant role in enhancing patients understanding of symptoms so that they can evaluate and make decision about appropriate symptom management strategies.

Symptom self-management is important in caring process. It is necessary for persons who are responsible for controlling or reducing impact of illness, especially in the management of psychosocial problems or severe illness (Pollack, 1996). Symptom self-management refers to behavior modification to control symptoms in patients with bipolar disorder. The action for symptom self-management includes compliance with treatment, avoidance of triggers, and talking with other people to reduce frequency and severity of symptoms (Murphy & Moller, 1993). Symptom self-management consists of 3 steps: 1. symptom monitoring, 2. symptom self-management behavior, and 3. perceived effectiveness of symptom self-management and reapplication of the behavior when it is perceived as effective (Tobin et al., 1986).

This study investigated only 2 steps: symptom self-management behavior and perceived effectiveness of symptom self-management.

Symptom self-management behavior refers to the strategy that the patients choose to manage their symptoms. According to Kanfer (1991), self-management is a process of self-control and monitoring of modified behavior before evaluating the obtained information and making decision to response or to develop the expected behavior. The process of symptom self-management consists of self-evaluation and behavior modification for the reduction of responses to environmental triggers and severity of symptoms. Murphy and Moller (1993) conducted a survey and reported symptom self-management activities prior to recurrence of illness in 95 psychiatric patients comprising 76 patients with schizophrenia, 7 patients with bipolar disorder, and 12 patients with depressive disorder. The patients were interviewed with close-ended and open-ended questions about symptoms and symptom management techniques. It was found that the sample used 6 strategies for symptom management: 1) distraction such as watching television, listening to music, chatting with friends or colleague; 2) fighting back such as positive thinking or talking, avoiding the situation that may trigger the symptom; 3) help-seeking such as talking to doctors and nurses or family members, receiving treatment from the hospital; 4) attempts to feel better, such as taking medications and foods, having a shower; 5) isolation such as sleeping or having a rest at home; and 6) escape behavior such as smoking, using alcohol or addictive substance. The strategies 1 – 4 are symptom management techniques that lead to improvement of illness; No. 5 – isolation, is the technique that could maintain the patients' ability but does not have effect on illness; and No.6 – escape behavior, has negative effect on the illness.

Perceived effectiveness of symptom self-management is a factor indicating the outcome of symptom self-management. Positive outcome or success will lead to reapplication of the management strategy. Kenney, et al. (2000) investigated symptom self-management in 60 patients with schizophrenia by applying the Murphy Symptom Management Assessment Tool (Murphy & Moller, 1993). It was found that 83 percent of the patients talked to doctors or nurses, 82 percent took medications, 78 percent lived with the symptom, and 60 percent asked for help from other people. They also investigated the relationship among symptom recognition, symptom self-

management, and perceived effectiveness of symptom self-management in 60 patients with schizophrenia and found significantly positive relationship between symptom recognition and symptom self-management at statistical level 0.05 ($r = .295$, $p = .02$). It was also found that symptom self-management and perceived effectiveness of symptom self-management had positive relationship at the statistical level 0.01 ($r = .798$, $p = .01$). Moreover, the patients who achieved high scores of symptom recognition tended to use symptom self-management more than those with low scores. Bipolar disorder is a neurobiological disorder concerning chemical imbalance in the brain that leads to physiological and behavioral changes that cause various symptoms, as in patients with schizophrenia. Common symptoms in patients with bipolar disorder include talking or laughing with themselves and having difficulties concentrating. Therefore patients with bipolar disorder could be use symptom self-management as patients with schizophrenia.

In Thailand, there are a number of studies on symptom self- management. For instance, Vaynee Changming (2003) investigated the relationships of symptom recognition, social support and symptom self-management in 100 patients with schizophrenia. The study reported fairly low level of symptom recognition, high level of social support and fairly low level of symptom self-management. In addition, it was found that symptom recognition could explain the variation of symptom self-management by 14.7 percent ($p < 0.05$) and symptom recognition and social support could co-explain the variance of symptom self-management by 29.4 percent ($p < 0.05$)

3.3 Assessment of symptom self-management

The Moller-Murphy Symptom Management Assessment Tool (MM-SMAT), designed by Murphy and Molley (1993), is a development in the assessment of health problems and symptom management on the basis of wellness model concept. This instrument was developed from the review of related literature and the interview with 95 psychiatric patients comprising 76 patients with schizophrenia, 12 patients with depressive disorder, and 7 patients with bipolar disorder. The interview questionnaire has both close-ended and open-ended question with the total number of 38 items, divided into 6 domains: 1) distraction, 13 items; 2) fighting back, 7 items; 3) help-seeking, 5 items; 4) attempts to feel better, 6 items; 5) isolation, 4 items; and 6) escape

behavior, 3 items. The responses for each question are classified into 3 parts comprising 1) duration of using the symptom management strategy (1month, 6 months, 1 year, several years); 2) frequency of using the strategy (ever month, every week, every day, all the time); and 3) management outcome (ineffective, occasionally effective, frequently effective, always effective).

Murphy and Moller examined the internal validity and reliability of the MM-SMAT after a trial with 95 psychiatric patients. The Cronbach's alpha coefficient for the instrument was 0.79. This questionnaire was further developed by Kennedy, et al. (2000) in a study with 60 patients with schizophrenia. For the later study, the responses were reduced to two parts - frequency and outcome; but the number of questions remained the same. The examination of reliability found Cronbach's alpha coefficient 0.91 in symptom management domain, and 0.92 in overall outcome of symptom management.

For a study in Thailand, Vayunee Changming (2003) translated the MM-SMAT into Thai with back-translation method and adapted the content to suit Thai people. The translated questionnaire was then submitted to 5 experts for the examination of content validity. The examination of reliability resulted in coefficient in the part concerning frequency of symptom management 0.71; and the coefficient in the part concerning outcome of symptom management was 0.79. This questionnaire was composed of 38 questions, divided into 6 domains: 1) distraction, 13 items; 2) fighting back, 7 items; 3) help-seeking, 5 items; 4) attempts to feel better, 6 items; 5) isolation, 4 items; and 6) escape behavior, 3 items. The total score ranges from 0 to 152; low scores indicate low level of symptom self-management and poor outcome and high scores indicate high level of symptom self-management and better outcome.

The review of related literature revealed that psychiatric patients attempt to manage their symptoms with various techniques. Some patients use fighting back technique, taking medications, seeking help, positive thinking, and accepting the symptoms. Nevertheless, some patients choose to escape, isolate, or do nothing. Symptom self-management varies in each patient, depending on the illness experience that contributes to symptom self-management behavior and perceived effectiveness of symptom self-management. The patients will apply their experience to self-management in order to live their life with well-being, leading to good quality of life.

4. Conclusion

Referring to the above review of literature, bipolar disorder, as named by the DSM-IV-TR criteria, is also called bipolar affective disorder with the coding F31 in the ICD-10-TM. Bipolar disorder is characterized by occurrences of two major types of emotional disorders: depression and mania. However, some patients may have depression at the same time as mania and such occurrence is called mixed episode. Major symptoms of mania or hypomania include elevated and expansive mood or irritable and aggressive mood. The patients in manic episode also have thoughts and behavior changes along with emotional disorder, such as rapid thoughts, fast speech, decreased need for sleep, excessive self-esteem, and over spending. During depressive episode, the patients are present with profound sadness, feeling of boredom, indifference, self-worthlessness, and having suicidal thoughts. Patients with bipolar disorder tend to have frequent recurrence of illness thus the disorder has substantial impact of their quality of life. In comparison with the quality of life of patients with other psychiatric disorders, such as depressive disorder or schizophrenia, or with patients with chronic physical illness like chronic backache, the quality of life of patients with bipolar disorder is poorer with statistical significance. For patients with bipolar disorder in the remission phase, in which the patients' symptoms do not meet the diagnostic criteria but the patients still have some residual symptoms, it is important to care for and manage the residual symptoms. Observation and monitoring the symptoms, in addition to symptom management, is important for the prevention of illness recurrence. Symptom self-management actions include compliance with medical treatment, avoidance of triggers, and talking to other people, etc. These actions could help reducing the frequency and severity of symptoms so that the patients could live their life with well-being.

CHAPTER III

METHODOLOGY

This study is a descriptive research aiming to investigate quality of life and symptom self-management in patients with bipolar disorder. The research methodology is described in details below.

Population and Sample of the Study

Population

The population of this study was patients who were diagnosed with bipolar disorder, as in the DSM-IV-TR criteria, or bipolar affective disorder: F31, as in the ICD-10-TM. These patients were in remission phase, as they had fewer symptoms than the low-end characteristics stated in the diagnostic criteria (Lortrakul & Sudnitch, 1996). They received medical treatment at the outpatient clinics of the Psychiatry Department of Siriraj Hospital and Ramathibodi Hospital.

Sample

The sample of this study was composed of patients with bipolar disorder who received medical treatment at the outpatient clinics of the Psychiatry Department of Siriraj Hospital and Ramathibodi Hospital whose characteristics met the following criteria:

1. The patients were diagnosed with bipolar disorder, according to the DSM-IV or the ICD-10, and had been on follow-up visits since the first treatment. They are in remission phase, in which they have fewer symptoms than the lower-end diagnostic criteria (Lortrakul & Sudnitch, 1996). The patients' condition was assessed with the following tools:

1.1 Thai version of the Montgomery-Asberg Depression Rating Scale (MADRS), for the assessment of depression; the assessment should result in the score ≤ 11 (Montgomery & Asberg, 1979).

1.2 Thai version of the Young Mania Rating Scale (YMRS), for the assessment of mania; the assessment should result in the score ≤ 10 (Young, et al., 1978).

2. The patients were 18 years old or older.

3. The patients were well conscious with normal level of alertness and in good condition for the provision of information.

4. The patients were willing to participate in the study.

5. The patients understood Thai language and could verbally communicate in Thai.

The sample size was calculated based on the formula developed by Daniel (1999) as follow:

$$n = Z^2 pq / d^2$$

When

n = estimated sample size

Z = standard normal deviate set at 1.96 if $\alpha/2 = 0.025$

p = expected prevalence or proportion, $p = 0.05$ (Prevalence of manic episode in Bangkok, Department of Mental Health, 2003)

$q = 1 - p = 0.95$

d = absolute precision of the study; maximum degree of error is taken as 0.05

$$n = \frac{(1.96)^2 \times 0.05 \times 0.95}{(0.05)^2}$$

$$n = 72.9904$$

The sample size was 73 patients but this study is a descriptive research. Therefore, the researcher increased the sample size to be 100 patients and data were collected from 50 patients of each hospital.

Research Instrument

The instrument for this research is classified into two types, as detailed below.

1. Sampling instrument

1.1 Montgomery-Asberg Depression Rating Scale (MADRS) This instrument was developed from the instrument designed by Montgomery and Asberg (1979). It was translated in to Thai with back-translation method by linguists (Kongsakon, 2003).

The MADRS developed by Montgomery and Asberg (1979) is a highly sensitive and reliable tool for the assessment of changes in severity of depression (Montgomery & Asberg, 1979). It is composed of 10 questions concerning 1. apparent sadness, 2. reported sadness, 3. internal tension, 4. reduced sleep, 5. reduced appetite, 5. concentration difficulties, 7. lassitude, 8. inability to feel, 9. pessimistic thoughts, and 10. suicidal thought.

For the Thai version of MADRS, Ronnachai Kongsakon (2003) had the questionnaire translated with back-translation method and made some adaptation to suit Thai people. The questionnaire was then examined for content validity by 5 experts and the item correlation coefficients were found ranging between 0.6 and 1.00. An item was considered having content validity when the coefficient was higher than 0.6. The standardized Cronbach's coefficient alpha for the total number of items was 0.8048. Each question item is present with responses in rating scale ranging from 0 to 6 thus total score of this questionnaire ranges from 0 to 60. The total scores higher than 21 indicate presence of major depressive disorder. It was concluded that the Thai version of the MADRS is accurate, brief, and reliable. It is, therefore, appropriate for application in clinical practice. Moreover, other healthcare professionals apart from psychiatrists, i.e. nurses and clinical psychologists, could also use this instrument for the assessment of symptoms or for research.

In full remission, that was defined as a MADRS total score ≤ 7 (Montgomery and Asberg, 1979). But, the samples of this study were bipolar patients in partial to full remission. Therefore, researcher proposed to define remission in bipolar disorder as patients having a total score of ≤ 11 (Hawley, et al., 2002; Zimmerman, et al., 2004).

1.2 Young Mania Rating Scale (YMRS) This present study assessed mania with the YMRS, which was developed by Young and associates (1978). The YMRS was translated into Thai with back-translation method by linguists (Kongsakon, 2005).

The YMRS was developed for the assessment of manic symptoms in patients with bipolar disorder by Young and associates (1978). The correlation between the total scores on the MRS was 0.93 and range from 0.66 for item 9, disruptive behavior, to 0.95 for item 4, sleep. The instrument was composed of 11 questions concerning 1. elevated mood, 2. increased motor activity energy, 3. sexual interest, 4. sleep, 5. irritability, 6. speech (rate and amount), 7. language and thought disorder, 8. content, 9. aggressive and disruptive behavior, 10. appearance, and 11. insight.

For the Thai version of YMRS, Ronnachai Kongsakon (2005) had the instrument translated with back-translation method and adapted the content to suit Thai people. The questionnaire was then examined for content validity by 5 experts. The item correlation coefficient was higher than 0.6 and the interrater Pearson's correlation was 0.87. The standardized Cronbach's alpha coefficient of the whole instrument was 0.89. The questions no. 1, 2, 3, 4, 7, 10, and 11 have responses in rating scale ranging from 0 to 4. The responses in items 5, 6, 8, 9 was a rating scale ranging from 0 to 8. Thus the total score of the questionnaire ranges from 0 to 60. The average scores on the YMRS were 13 for minimal severity, 20 for mild, 26 for moderate, and 38 for severe.

In full remission, that was defined as a YMRS total score ≤ 7 (Young, et al., 1978). But, the samples of this study were bipolar patients in partial to full remission. Therefore, researcher proposed to define remission in bipolar disorder as patients having a total score of ≤ 10 (Robb, et al., 1997; Yen, et al., 2002).

2. Interview questionnaire for the collection of data

2.1 Personal information record This part of the questionnaire was developed from the review of related literature. Information recorded in this part included gender, age, religion, marital status, education level, occupation, income, duration of having psychiatric illness, number of hospital admissions on account of psychiatric disorder.

2.2 Health-related quality of life measure This research used quality of life measure developed from the English SF-36, designed by Ware (1993). The instrument was translated into Thai by Ronnachai Kongsakon (1999).

The SF-36 is a 36-item instrument, divided into 9 domains. Eight domains were multi-item scales, asking the respondents to evaluate their ability in the past month. The number of questions in each domain varies, as listed below.

Domain 1: Physical functioning, 10 items - No. 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.

Domain 2: Role limitation due to physical problems, role-physical, 4 items - No. 13, 14, 15, and 16.

Domain 3: Role limitation due to emotional problems, role-emotional, 3 items – No. 17, 18, and 19.

Domain 4: Social role limitation due to physical and emotional problems, social function, 2 items – No. 20 and 32.

Domain 5: Bodily pain, 2 items – No. 21 and 22.

Domain 6: Mental health, 5 items – No. 24, 25, 26, 28, and 30.

Domain 7: Vitality, 4 items – No. 23, 27, 29, 31.

Domain 8 – General Health perception, 5 items - No. 1, 33, 34, 35, and 36.

The question No. 2 is a single-item scale, asking about reported health transition. This interview questionnaire can be used in either self-reported, face-to-face, or telephone interview. The collection of data took about 5 – 10 minutes.

The Thai version of the Short Form 36 Health Survey (SF-36) was translated by Ronnachai Kongsakon (1999). It was translated with back translation method and was used to measure quality of life in 100 psychiatric patients. The instrument was examined for content validity by 5 experts and the Cronbach's alpha coefficient was found at 0.92.

The total score of each domain ranges from 0 to 100. High scores reflect good quality of life and low scores reflect poor quality of life. The score of question No. 2, reported health transition, is excluded from the calculation of total score but it will be calculated and expressed in terms of percentage of respondents choosing each response.

2.3 Symptom Management Measure. This present research used the symptom management assessment tool for psychiatric patients developed by Murphy and Moller (1993). This instrument was translated with back-translation method into Thai by Vayunee Changming (2003).

The symptom management assessment tool was composed of 38 questions, divided into 6 domains: 1) distraction, 13 items; 2) fighting back, 7 items; 3) help-seeking, 5 items; 4) attempts to feel better, 5 items; 5) isolation, 4 items; and 6) escape behavior, 3 items. The responses for each item were divided into two parts: 1) frequency of using the symptom management technique (every month, every week, everyday, and all the time); and 2) outcome of symptom management (ineffective, occasionally effective, frequently effective, and always effective). Murphy and Moller (1993) examined the assessment tool by measuring the reliability regarding internal consistency after trying it out with 95 psychiatric patients and the alpha coefficient was 0.79. Kennedy, et al., (2000) later developed the instrument by having a study with 60 psychiatric patients and the examination of reliability result in Cronbach's alpha coefficient 0.91 for frequency of symptom management scale and 0.92 for outcome of management scale.

In Thailand, this symptom management measure was translated with back-translation method and was adapted to suit Thai people by Vayunee Changming (2003). The Thai version was then examined for content validity by 5 experts. The reliability of the instrument regarding found with coefficient 0.71 for frequency of symptom management scale and 0.79 for outcome of management scale. The total score ranged from 0 to 152. Low scores indicated low level of symptom management and outcome of symptom self-management. High scores reflected high level of symptom management and outcome of symptom self-management.

For the present research, the researcher used this Thai version for the assessment of symptom self-management behavior and perceived effectiveness of symptom self-management. The frequency and the outcome of symptom management were assessed with 4-level rating scale.

Validity and Reliability

Validity

Symptom self-management questionnaire

The Thai version of symptom self-management questionnaire translated by Vayunee Changming (2003) was submitted to a panel of five experts for the examination of content validity, accuracy, coverage, and appropriateness for using with patients with bipolar disorder. The panel of experts consisted of

- 2 Doctors specialized in bipolar disorder
- 3 Nurses with expertise in nursing care for patients with bipolar disorder.

The examination of content validity resulted in CVI 95 percent, indicating acceptable validity. The questions were amended according to the experts' comments.

For the quality of life assessment tool SF-36, the Montgomery-Asberg Depression Rating Scale (MARDS), and the Young Mania Rating Scale (YMRS), Ronnachai Kongsakon already translated Thai versions, which are proven valid and reliable. Thus these tools did not need to be examined for validity again.

Reliability

The researcher used the quality of life assessment tool, symptom self-management measure, depression assessment tools, and mania assessment tools in a trial with 30 patients with bipolar disorder whose characteristics met the inclusion criteria. The results were then calculated for Cronbach's alpha coefficient of each assessment tool, as detailed below.

1. Reliability of the quality of life assessment tool

The Alpha coefficient for the overall questionnaire = 0.83; and for each dimension was as follow: physical functioning = 0.97, role-physical = 0.91, role-emotional = 0.95, social function = 0.48, bodily pain = 0.80, mental health = 0.68, vitality = 0.71 and general health = 0.75.

2. Reliability of symptom self-management questionnaire.

The Alpha coefficient in each part of symptom self-management question was: frequency of using a strategy for symptom self-management = 0.77, perceiving outcomes of symptom self-management = 0.79.

3. Reliability of depression rating scale

The Alpha coefficient for the overall questionnaire = 0.88

4. Reliability of mania rating scale

The Alpha coefficient for the overall questionnaire = 0.89

Data Collection

The data were collected with interview questionnaire and assessment tools. The researcher of this study collected all data as described below.

1. An introduction letter from the Faculty of Graduate Studies, Mahidol University was submitted to the Directors of Siriraj Hospital and Ramathibodi Hospital to request permission for data collection. A research proposal was also submitted to the Committee on Human Rights Related to Human Experimentation for the approval of conducting a study with psychiatric patients.

2. When receiving an approval for the collection of data, the researcher met the Heads of Nursing Division and the Heads of outpatient clinics at the study sites to explain objectives and details of the study and to ask for cooperation in data collection.

3. Nursing staff of the outpatient clinics of Siriraj Hospital and Ramathibodi Hospital were contacted and were asked for cooperation in the collection of data.

4. The researcher selected patients whose characteristics met the inclusion criteria by surveying the outpatient register book and inquiring nursing staff at the outpatient clinics before conducting an interview and making a record.

5. The researcher introduced herself to the targeted patients, and explained the objectives of the study. The patients were informed about the protection of their rights before they were asked to participate in the study, as stated in the consent form.

6. When the patients expressed willingness to participate in the study, the researcher informed them in advance that their symptoms would be assessed first. If the symptoms met the desired criteria, the patients would be recruited as subjects of the study. Mania was measured with the Thai version of the Young Mania Rating Scale (YMRS) and depression was measured with the Thai version of Montgomery-Asberg Depression Rating Scale (MADRS). If the score from the YMRS was ≤ 10 and score from the MADRS was ≤ 11 , the patients would be recruited into the study for assessment of quality of life and symptom self-management.

7. The researcher interviewed the subjects whose scores of YMRS and MADRS met the criteria with the questionnaire for personal information, quality of life assessment tool, and symptom self-management measure. The interview with each subject took about 30 – 45 minutes. However, if the subjects expressed unwillingness to respond to the questionnaire during the interview, the researcher would instantly stop the interview.

8. After the collection of data was complete, the researcher thanked the subject for their cooperation and allowed them to ask questions should they have any doubt. The sample also received information about the research should they like.

9. The researcher checked the correctness and completeness of information after finishing data collection with each subject. All responded questionnaires were collected and arranged for statistical analysis.

Protection of Human Subjects

The researcher introduced herself to each subject personally and explained the objectives of the study. The subjects were informed that their decision to participate in this study totally depended on their willingness, and they could agree or refuse to participate in the study on their own will. When the patients expressed willingness to participate in the study, they were asked to sign the consent form. During the study, the interview could be stopped at anytime without any impact on medical services that the patients were receiving from the hospitals. The obtained information would be kept confidential and would be used for academic purpose only. The sample was also informed that some information would be recorded by writing to ensure correctness and completeness. The data would be presented in overall picture without identifying each subject individually and there would be no harm or impact on the sample. The researcher would start collecting data after the patients expressed willingness to participate in the study.

Data Analysis

The obtained data were analyzed with standard packaged statistical program. The analysis was conducted in the following steps:

1. Personal data were analyzed with frequency count method and the results were expressed in percentage terms.
2. The scores of quality of life in each domain were calculated for means and standard deviations.
3. The scores of symptom self-management regarding frequency and outcome of symptom management were calculated for means and standard deviations.

The results of data analysis are presented in Tables with descriptions in the following chapter.

CHAPTER IV

RESULTS

Research Finding

This descriptive research studies the quality of life and symptom self-management of bipolar patients. The samples were bipolar patients aged between 18-65. Data were collected at the Outpatient Department of the Psychiatry Disease of Siriraj Hospital and Ramathibodi Hospital, Bangkok from July to August 2006. There were 100 samples whose characteristics were in accordance with the criteria of this study.

The results are presented in the following two parts:

Part I : Demographic characteristics of the samples

Part II : Descriptions of quality of life and symptom self-management in the bipolar patients.

Part I : Demographic characteristics of the samples**Table 1** Demographic characteristics of the samples. (n=100)

Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	35	35.0
Female	65	65.0
Age (Years)		
18-20	6	6.0
21-30	19	19.0
31-40	25	25.0
41-50	29	29.0
51-60	13	13.0
61-65	8	8.0
(M = 40.40, SD = 12.74, Min = 18 , Max = 65)		
Religion		
Buddhist	94	94.0
Christian	5	5.0
Muslim	1	1.0
Marital Status		
Single	53	53.0
Married	33	33.0
Widowed	0	0.0
Divorced	11	11.0
Separated	3	3.0

Table 1 Demographic characteristics of the samples.(continued)

Characteristics	Frequency (n)	Percentage (%)
Education		
No education	0	0.0
Primary school	14	14.0
Secondary school	19	19.0
Diploma/ Certificate	11	11.0
Bachelor's degree	48	48.0
Higher than Bachelor's degree	8	8.0
Occupation		
Government	13	13.0
Government enterprise	1	1.0
Agriculture	2	2.0
Trader	26	26.0
Employee	27	27.0
Unemployed/Housewife	19	19.0
Others	12	12.0
- Pensioned government	3	3.0
- Student	9	9.0
Income (bath/month)		
≤ 5,000	30	30.0
5,001 -10,000	21	21.0
10,001-20,000	26	26.0
20,001-30,000	11	11.0
≥ 30,001	12	12.0

Table 1 Demographic characteristics of the samples.(continued)

Characteristics	Frequency (n)	Percentage (%)
Duration of illness with psychiatric disorder (years)		
< 1	10	10.0
1-5	28	28.0
5-10	22	22.0
> 10	40	40.0
Number of admission (times)		
Never	34	34.0
1-3	57	57.0
4-6	8	8.0
7-10	1	1.0
(M = 1.35 , SD = 1.71 , Min = 0, Max = 10)		

As shown in table 1, the sample consisted of 35 males (35.0%) and 65 females (65.0%). Most subjects were aged between 41-50 years old (29.0%), with the overall mean age of 40 years. Ninety-four percent of the samples were Buddhists and fifty-three percent were single. Forty-eight percent of the samples had completed a bachelor's degree and nineteen percent had finished secondary school. Sixty-nine percent of the sample were employed and nineteen percent were unemployed, and twelve percent had other occupations such as pensioned government (3%) and student (9%). Most subjects had an income of $\leq 5,000$ baht/month (30%). Most subjects had been ill for longer than 10 years (40%), Fifty-seven percent of the sample had been admitted into a hospital 1-3 times, with a mean number of 1 time.

Table 2 Mean and standard deviation of manic and depressive symptoms scores of patients with bipolar disorder. (n = 100)

Symptoms	n	<u>M</u>	<u>SD</u>
Mania	48	4.96	2.96
Depression	38	4.79	2.92
None	14	0	0

As shown in Table 2, forty-eight percent of sample had manic symptoms and the mean score of manic symptoms was 4.96 (SD = 2.96). Thirty-eight percent of sample had depressive symptoms and the mean score of depressive symptoms was 4.79 (SD = 2.92) and fourteen percent of sample had no symptoms.

Part II : Descriptions of quality of life and symptom self-management in bipolar patients

Table 3 Mean and standard deviation of quality of live scores, categorized by dimensions of quality of life. (n = 100)

Quality of Life	<u>M</u>	<u>SD</u>
Physical Functioning	96.70	1.65
Social Functioning	94.37	1.02
Role-Physical	89.00	1.17
Bodily Pain	88.94	1.20
Mental Health	71.12	3.22
Vitality	63.65	2.47
General Health	61.81	2.85
Role-Emotional	58.33	1.46

As shown in Table 3, the mean score of each dimension was as follows: physical functioning = 96.70 (SD = 1.65), social functioning = 94.37 (SD = 1.02), role-physical = 89.00 (SD = 1.17), bodily pain = 88.94 (SD = 1.20), mental health = 71.12 (SD = 3.22), vitality = 63.45 (SD = 2.47), general health = 61.81 (SD = 2.85), role-emotional = 58.33 (SD = 1.46).

Table 4 Mean and standard deviation of symptom self-management scores regarding the frequency of use, categorized by symptom management strategies (n = 100)

Symptom self-management	<u>M</u>	<u>SD</u>
Distraction	1.73	.37
Isolation	1.58	.39
Attempts to feel better	1.51	.51
Fighting back	1.21	.42
Help-seeking	1.09	.27
Escape behavior	.19	.42
Total	1.39	.25

As shown in Table 4, the overall mean score of using symptom self-management strategies was 1.39 (SD = .25), while the possible range was 0 to 4. The mean score of each strategy was as follows: distraction = 1.73 (SD = .37), isolation = 1.58 (SD = .39), attempts to feel better = 1.51 (SD = .51), fighting back = 1.21 (SD = .42), help-seeking = 1.09 (SD = .27), escape behavior = .19 (SD = .42).

Table 5 Mean and standard deviation of perceived efficacy of symptom self-management scores, categorized by symptom management strategies (n = 100)

Perceived efficacy of Symptom self-management	<u>M</u>	<u>SD</u>
Help-seeking	2.15	.26
Distraction	1.92	.44
Attempts to feel better	1.56	.51
Isolation	1.48	.39
Fighting back	1.42	.42
Escape behavior	.22	.45
Total	1.61	.28

As shown in table 5, the overall mean score of perceived efficacy of symptom self-management was 1.61 (SD = .28), while the possible range was between 0 to 4. The mean score of each strategy was as follows: help-seeking = 2.15 (SD = .26), distraction = 1.92 (SD = .44), attempts to feel better = 1.56 (SD = .51), isolation = 1.48 (SD = .39), fighting back = 1.42 (SD = .42), escape behavior = .22 (SD = .45).

CHAPTER V

DISUSSION

This research was a study of quality of life and symptom self-management in the patients with bipolar disorder. The sample of this study was composed of 100 patients with bipolar disorder receiving medical service at the out-patient departments of Siriraj Hospital and Ramathibodi Hospital. The research results are discussed according to objectives of the study in this chapter.

1. Quality of Life of Patients with Bipolar Disorder

The SF-36 questionnaires were used to measure the health-related quality of life (HRQOL) of the patients with bipolar disorder at Siriraj Hospital and Ramathibodi Hospital, Bangkok, Thailand. The results showed that, patients with bipolar disorder have markedly higher health status scores on all eight SF-36 dimensions. The mean transformed scores, which could range from 0 to 100, were fairly high in dimension of the physical functioning (96.70), social functioning (94.37), role-physical (89.00) and bodily pain (88.94), while the mean scores were fairly low in dimension of mental health (71.12), vitality (63.65), general health (61.81) and role-emotional (58.33), respectively. Therefore, higher scores indicated that the sample had a better quality of life. Possible reasons for this finding are discussed below.

Firstly, the samples of this study were patients with bipolar disorder which was in partial remission to full remission, and having two or three symptoms of the group of symptoms for diagnostic criteria (Lortrakool & Sudnitch, 1996). Moreover, they visited an out-patient clinic for follow up and received drugs to maintain their health. On the other hand, it could be expected that would have an improved quality of life due to drugs and psychotherapy being used to treat manic and depressive symptoms. This result was consistent with a study conducted by Namjishi, et al. (2004) which found evidence that when patients with bipolar disorder were treated with a combination of olanzapine and lithium or valproic acid, rapid improvement in clinical

symptomatology stabilizes the patient, and improves patient satisfaction with their functioning. In the study of Chand, et al. (2004) it was suggested that patients with bipolar disorder, stabilized on a mood stabilizer (i.e. lithium) have a relatively good quality of life, which was comparable to that of a healthy population and better than that of schizophrenic patients who were clinically stable. Among the psychosocial contributions to the quality of life of patients with bipolar disorder, the severity of daily hassles played a significant role. However, the result of this study was consistent with a study conducted by Leidy, et al. (1998), which found euthymic out-patients with bipolar disorder had higher mean scores than depressed out-patients with bipolar disorder on all scales and Vojta, et al. (2001) found patients with manic/ hypomania showed significantly lower SF-12 mental health scores than euthymic patients, with depressed or mixed patients showing a significantly poorer quality of life again.

The second possible reason was that the findings may be due to the fact that there were more samples who had manic symptoms than those who had depressive symptoms. As the symptoms of bipolar disorder range from severe depression to mania, symptoms of depression include persistent sadness, anxiety and feeling of hopelessness or pessimism while those of mania include increased energy, restlessness and feelings of euphoria (Evenson, 1998, cited in Namjoshi & Buesching, 2001). Patients with manic symptoms mostly feel happy. Therefore, patients who had manic symptoms may have a higher quality of life score than those with depressive symptoms. These symptoms affect the physical, emotional, social and functional well-being of an overall health-related quality of life of the individual (Namjishi et al., 2004). This is also consistent with the study conducted by MacQueen, et al. (2000) in euthymic patients, which found that the number of past episodes of depression was a stronger determinant of the quality of life than the number of previous manic episodes. However, the study of Yatham, et al. (2004) found that Bipolar I depressed patients had impairments in their quality of life and that the impairments in the quality of life correlated with the severity of the depressive symptoms. A depressive mood could distort patients' perceptions and cause them to overestimate their level of functional impairment (Sierra, et al., 2005). Altman (1998) suggested that to administer self-report measures of quality of life in patients with mild to moderate manic symptoms can provide reliable descriptions of their symptoms.

Lastly, the majority of the sample of this study had a fairly high socioeconomic status; education, occupation and income. Patients who had a middle to high socioeconomic status could take care of themselves and solve their own problems. More than half of the samples had high education, thus they have are seen to have knowledge about how to understand and take care of themselves. Have, et al. (2002) suggested that if people with bipolar disorder are educated to recognize their characteristic prodromal symptoms, recurrences of bipolar disorder could be treated earlier and perhaps more effectively. About two thirds of the samples were employed (69%) and almost half of the sample had an income of more than 10,000 baht per month (49%), indicating their well-being. Therefore, regarding the three possible reasons above, the result of this study could be fairly high scores in all dimensions for the health-related quality of life (HRQOL).

The mean score of quality of life in physical functioning was the highest of all dimensions (96.70 ± 1.65). According to Ware (1993), physical functioning referred to levels or limitations of activities including lifting and carrying groceries; climbing stairs; bending, kneeling, or stooping; and walking moderate distances. As the results showed, more than half of the samples were in their adult and middle ages that had good physical health. Moreover, most of the patients with bipolar disorder had problems with their mental health. This result was similar to previous studies (Leidy, et al., 1998; Arnold, et al., 2000; Have, et al., 2002; Hakkaart-van Roijen, et al., 2004; Shi, et al., 2004; Yatham, et al., 2004).

The mean scores of the quality of life in role-emotional was the lowest of all dimensions (58.33 ± 1.46). According to Ware & Sherbourne (1992), a low score of role-emotional dimension represents that patients had problems with work or other daily activities as a result of their emotional problems. Thus, possible reasons of this finding could be due to bipolar disorder being affecting the mental health of the patient thus causing emotional impairment which may interfere to work or other normal activities, and reducing the amount of time spent at work or doing other normal activities and difficulty performing work or other normal activities. This result was similar to previous studies (Leidy, et al., 1998; Arnold, et al., 2000; Shi, et al., 2004; Yatham, et al., 2004). According to a report by Yatham, et al. (2004), the results indicated that Bipolar I depressed patients have a significant impairment in their

quality of life and that the impairment in their quality of life correlates with the severity of their depression symptoms and results showed the greatest impairment among patients with bipolar disorder in the ability to function socially, work, perform daily activities and accomplish tasks as indicated by a lower subscale score of social functioning, role-physical and role-emotional. However, the results of the study were different from some previous studies conducted by Have, et al. (2002) which found the mean scores for the quality of life in vitality was the lowest of all dimensions and Hakkaart-van Roijen, et al. (2004) which found that the mean scores of quality of life in role-physical was the lowest of all dimensions because there were two samples who had physical problems.

The results of this study when compared with other studies of chronic non-mental illnesses and mental illnesses found that the mean scores for the quality of life in all dimensions higher than prior studies that used SF-36 evaluating quality of life (Cooke, et al., 1996; Arnold, et al., 2000). However, a systematic review evaluating the quality of life in patients with bipolar disorder (Dean, Gerner, D., & Gerner, R., 2004) showed that quality of life impairments were greater among patients with bipolar disorder than in the general population and greater than those with other chronic non-mental health disorders. When comparing patients with psychiatric disorder and patients with bipolar disorder, the ratings of their quality of life were similar to those with patients with unipolar depression but higher than those who had schizophrenia.

2. Symptom Self-management in Patients with Bipolar Disorder

2.1 Strategy of Symptom Self-management

The results of the study revealed that the overall mean score of symptom self-management strategy was 1.39, which was lower than the medium value of the possible range (2 from the possible range 0-4), indicating that the samples expressed a fairly low level of symptom self-management. This finding is similar to that of a study led by Kennedy, et al., (2000), which found fairly low scores of symptom self-management among schizophrenic inpatients. However, the sample reported using strategies of symptom self-management from every domain. This is consistent with the results of previous studies, which found the utilization of various strategies to manage symptoms; for instance, fighting back, praying, or seeking treatment (Cohen & Berk, 1985), ignoring disturbing thoughts, isolation, watching television, listening to music (Murphy & Moller, 1993), talking with doctors or nurses, thinking positively and taking medication (Kennedy, et al., 2000).

The strategy of symptom self-management frequently used in this study was distraction followed by isolation, attempts to feel better, fighting back, help-seeking and escape behaviors ($M = 1.73, 1.58, 1.51, 1.21, 1.09$ and $.19$, respectively). The distraction category consisted of these techniques include listening to music, watching television, reading, working, walking/ swimming etc. This finding is similar to that of a study conducted by Sittimongkol, Y. and associates (2000) which found that inpatients with schizophrenia mostly reported the use of distraction strategy for symptom management. However, this finding differs from that of the study conducted by Cohen and Berk (1985), which found that schizophrenic out-patients mostly used the fighting back strategy to manage their symptoms. Another study conducted by Changming, V. (2003) found that schizophrenic out-patients mostly used the isolation strategy to manage their symptoms. The findings of this study may be due to the fact that most of these samples spent time watching television, and these activities are simple. Therefore, they are likely to use distraction strategy by watching television or listening to music to manage their symptoms, rather than using other strategies.

Distraction is a strategy that will lead to healthy conditions (Murphy & Moller, 1993). However, health care professionals should encourage patients to use other effective symptom self-management strategies that will lead to healthy conditions in the same manner as distraction such as fighting back, help-seeking and attempts to feel better because they have other strategies for symptom self-management.

For each technique of symptom self-management, the most frequently used technique was taking medication ($M = 3.97$) with 97.0 percent of the sample reporting that they always used this technique and 3.0 percent reported often using it. The second most frequent technique used was listening to music ($M = 2.91$) with 36.0 percent of the sample reporting the use of this technique always and 34.0 percent using it often. The third ranked technique was watching television ($M = 2.85$) with 15.0 percent of the sample reporting using this technique always and 61.0 percent using it often (Appendix D). These results are similar to those of the studies conducted by Cohen and Berk (1985) and Kennedy, et al. (2000) that found that most schizophrenic patients reported the use of oral medications to manage their symptoms. This could be explained from the effectiveness of medications in controlling the symptoms and reducing relapses of their illnesses (Lortrakul & Sudnitch, 1996) and new drugs currently available being effective in improving patients' functioning. In addition, health care professionals always emphasize compliance with treatment and bipolar outpatients, as well as their relatives, who are always reminded about the importance of taking oral medication by health care staff at every follow-up visit. These factors, therefore, could explain why taking oral medication was the most frequently used technique for symptom self-management. However, listening to music and watching television were the second and third most frequently used techniques because these activities are easy to do and used in everyday life.

It is noteworthy that the subjects in this study also used escape behaviors for symptom self-management: 15 percent reported smoking or chewing tobacco; 11 percent drank alcohol; but no-one used marijuana or amphetamines. These behaviors, however, can induce symptom changes or symptom exacerbation (Murphy & Moller, 1993). Therefore, health care professionals and caregivers should be aware of the necessity to help patients avoid using this strategy for symptom self-management.

2.2 Perceived efficacy of symptom self-management

For perceived efficacy of symptom self-management, most subjects perceived the efficacy of help-seeking strategy, followed by distraction, attempts to feel better, isolation, fighting back and escape behaviors strategy ($M = 2.15, 1.92, 1.56, 1.48, 1.42$ and $.22$, respectively) (Table 5). However, results of the most frequently used strategy have shown that the distraction strategy was mostly used and the help-seeking strategy was used less often than the distraction strategy. These results may be due to the fact that help-seeking is a strategy that contributes to a stable and healthy condition (Murphy & Moller, 1993). For the perceived efficacy of help-seeking strategy, most subjects perceived efficacy of talking to a doctor, talking to a nurse, talking to their family and going to a mental health center/clinic (98%, 97%, 97% and 7% respectively) (Appendix D), that helped them recover from illness. In addition, the fact that the samples in this study are outpatients who still come for following up may to the group of patients who perceived help seeking from health care providers that successful in treatment such as they had the symptom change dramatically after they used drug or they performed according to advice from health care providers. In Thai culture, patients believed that doctors and nurses could treat and help them recover from their illness. Thus, they trusted the healthcare team more than the perceived efficacy in caring for themselves and they had social support such as the families of patients to visit the doctor to receive medicine while the patients stayed at home. Therefore, this could explain why the help seeking category had the highest mean score of perceived efficacy of the symptom self-management. However, this finding differs from that of the study conducted by Changming, V. (2003) which found that schizophrenic out-patients perceived the efficacy of fighting back strategy to be better than other strategies because patients with schizophrenia may not have as good a relationship with other people as patients with bipolar disorder do.

The results of perceived efficacy of each technique in symptom self-management shows that the efficacy of taking oral medication was mostly perceived ($M = 3.94$) with 4.0 percent of the sample reporting that the technique often worked and 95.0 percent reported that it worked every time. The second ranked technique of perceived efficacy was talking to a doctor ($M = 2.97$) with 93.0 percent of the sample reporting that the technique often worked and 4.0 percent reported that it worked every

time. The third ranked technique of perceived efficacy was listening to music ($M = 2.91$) with 43.0 percent of the sample reporting that the technique often worked and 31.0 percent reported that it worked every time (Appendix). These results are relevant with the results regarding the frequency of use with data demonstrating that the symptom self-management technique frequency used were perceived as having a high efficacy. This finding is consistent with results found by Kennedy, et al., (2000), which indicated a correlation between symptom self-management score and the perceived efficacy of symptom self-management score ($r = .789, p \leq .01$). It also supports Kanfer's certain behavior (Kanfer, 1991). The higher the perceived efficacy of a symptom self-management technique is, the more a motivation patients with bipolar disorder will have to continuously use that technique.

4. Summary

The majority of subjects reported a middle to high quality of life mean score. The mean score of the quality of life for the physical functioning dimension was the highest of all dimensions and for the role-emotional dimension, it was the lowest of all dimensions, which is consistent with prior studies. Most subjects used various strategies for managing their symptoms and the overall mean score of symptom self-management was fairly low. The strategy of symptom self-management frequently used in this study was distraction strategy followed by isolation, attempts to feel better, fighting back, help-seeking and escape behaviors strategy, respectively. For perceived efficacy of symptom self-management, the results also showed a fairly low overall mean score. Perceived efficacy of symptom self-management with help seeking strategy was mostly reported, followed by distraction, attempts to feel better, isolation, fighting back and escape behaviors strategy, respectively. The results of this study differ with prior studies because the samples may have had different disorders.

CHAPTER VI

CONCLUSION

The Summary of the Study

This study was a descriptive research aiming to explain the quality of life and symptom self-management of patients with bipolar disorder. The sample of this study was composed of 100 patients with bipolar disorder receiving medical service at the out-patient departments of Siriraj Hospital and Ramathibodi Hospital. The samples were selected with purposive sampling method based on the research inclusion criteria. Data was collected during July and August, 2006.

The research instrument was a questionnaire consisting of three major parts for the collection of data concerning demographic characteristics of the sample, quality of life and symptom self-management. The validity of the instrument was examined by five experts prior to the reliability measurement, which was conducted by trialing the questionnaire on 30 bipolar patients whose characteristics met the inclusion criteria. The reliability of the questionnaire was measured again with the sample of 100 bipolar patients. The reliabilities of the instruments were satisfactory. The obtained data were analyzed with the SPSS/FW program and the results were calculated with frequency count method. The demographic data of the sample are expressed in percentage values. Scores of quality of life and symptom self-management are presented in percentage, mean and standard deviation values. The results of each question item are also presented, in addition to the overall results.

The findings of this study are summarized below.

1. The results showed that there were more females (65%) than males (35%). More than half of the samples were in the age ranges of 31-40 and 41-50 years (54%), with the average age of the sample being 40.40 years ($SD = 12.74$). The majority of the samples were Buddhists (94%). More than half of the samples were single (53%), about one-third were married (33%) and eleven percent were divorced (11%). More than half of the samples had completed a bachelor degree or higher than a bachelor degree (56%). About two thirds of the samples were employed (69%) and nineteen percent of the samples were unemployed. Almost half of the samples had an income of more than 10,000 baht per month (49%). In addition, the results of this study indicate that more than half of the samples were affected by bipolar disorder for longer than five years (62%). Approximately two-thirds of the samples were hospitalized at least once (66%), with the mean number for admission at 1.35 ($SD = 1.71$).

2. The majority of subjects reported that their quality of life was good with fairly high mean score. Most subjects reported their quality of life in the physical functioning ($M = 96.70$, $SD = 1.65$), followed by social functioning ($M = 94.37$, $SD = 1.02$), role-physical ($M = 89.00$, $SD = 1.17$), bodily pain ($M = 88.94$, $SD = 1.20$), mental health ($M = 71.12$, $SD = 3.22$), vitality ($M = 63.65$, $SD = 2.47$), general health ($M = 61.81$, $SD = 2.85$) and role-emotional ($M = 58.33$, $SD = 1.46$).

3. Most subjects used various strategies for managing their symptoms and the overall mean score for symptom self-management was fairly low ($M = 1.39$, $SD = .25$). The most frequently used strategy was distraction ($M = 1.73$, $SD = .37$), followed by isolation ($M = 1.58$, $SD = .39$), attempts to feel better ($M = 1.51$, $SD = .51$), fighting back ($M = 1.21$, $SD = .42$), help-seeking ($M = 1.09$, $SD = .27$) and escape behaviors ($M = 1.19$, $SD = .42$).

For perceived efficacy of symptom self-management, the results also showed a fairly low overall mean score ($M = 1.61$, $SD = .28$). Perceived efficacy of symptom self-management with help seeking strategy was mostly reported ($M = 2.15$, $SD = .26$), followed by distraction ($M = 1.92$, $SD = .44$), attempts to feel better ($M = 1.56$, $SD = .51$), isolation ($M = 1.48$, $SD = .39$), fighting back ($M = 1.42$, $SD = .42$) and escape behaviors ($M = 1.22$, $SD = .45$).

Recommendations for Nursing Practice

1. According to the findings of this study, in which the mean scores were fairly low in dimension of role-emotional and general health the data of quality of life should be used to plan for holistic care in patients with bipolar disorder.

Recommendations for Further Study

1. The results of the study were symptom self-management of patients with bipolar disorder that they have both manic and depressive symptoms. Therefore, future studies should conduct research on patients who have only manic symptoms or depressive symptoms.

2. Future studies should examine the quality of life using the SF-36 in bipolar patients with different levels of symptom severity ranging from euthymia to severe depression or severe mania.

3. Future studies should determine specific psychosocial interventions aimed at reducing the impact of bipolar disorder on quality of life.

Limitations of the Study

1. This study site was limited to the Siriraj Hospital and Ramathibodi Hospital. Therefore, the findings from this study may not be generalized to other populations.

2. This study did not focus on drug use in treating the subjects which may have had an impact on the quality of life of the subjects.

3. The samples in the study were both patients with mania and patients with depression, so the symptom self-management strategy and perceive efficacy of symptom self-management cannot be representative of specific symptoms.

4. The reliability of symptom self-management instrument was fairly low because it was a new instrument. Therefore, future researchers should improve the instrument of symptom self-management for patients with bipolar disorder.

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APPENDIX A

List of experts

The contents of the Moller-Murphy Symptom Management Assessment Tool (MM-SMAT) was validated by five experts as below:

1. Assoc. Prof. Sudsabye Julakadabba
Department of Psychiatry
Faculty of medicine, Siriraj Hospital.
2. Assoc. Prof. Manoch Loatrakul
Department of Psychiatry
Faculty of medicine, Ramathibodi Hospital.
3. Miss Rapeepan Jamjumrus
Psychiatric Ward
Faculty of medicine, Siriraj Hospital
4. Miss Ubol Hunkaewchompoo
Psychiatric Ward
Faculty of medicine, Siriraj Hospital
5. Miss Chonlada Kongkum
Psychiatric Ward
Faculty of medicine, Somdet Chao Phraya Hospital

APPENDIX B

Informed Consent



เอกสารชี้แจงข้อมูล/คำแนะนำแก่ผู้เข้าร่วมการวิจัย (Patient/Participant Information Sheet)

ชื่อโครงการ คุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว

ชื่อผู้วิจัย นางสาว กนกรัตน์ พิมพ์รุณ

สถานที่วิจัย ดิกรผู้ป่วยนอกแผนกจิตเวช โรงพยาบาลรามารับดี

บุคคลและวิธีการติดต่อเมื่อมีเหตุฉุกเฉินหรือความผิดปกติที่เกี่ยวข้องกับการวิจัย

นางสาว กนกรัตน์ พิมพ์รุณ เบอร์โทร 09-1540286

ผู้สนับสนุนการวิจัย ไม่มี

ความเป็นมาของโครงการ

โรคอารมณ์แปรปรวนชนิดสองขั้ว มีลักษณะเด่นอยู่ที่ความผิดปกติของภาวะอารมณ์เป็นสำคัญโดยมีช่วงเวลาของอาการคลุ้มคลั่งสลับกับอาการซึมเศร้า โดยในช่วงอาการคลุ้มคลั่งสามารถแบ่งอาการออกเป็น 3 กลุ่มใหญ่ คือ ด้านอารมณ์ จะมีความสุขมาก ตีคะนอง ไม่สำรวม มีการแสดงออกของอารมณ์หรือความต้องการอย่างขาดความยับยั้งชั่งใจ หากถูกห้ามปรามหรือขัดขวางจะรู้สึกหงุดหงิด ฉุนเฉียว ด้านพฤติกรรม มีความขยันมากกว่าปกติแต่มักทำได้ไม่ค่อยดี ความต้องการนอนลดลง ชอบพูดคุยทักทายผู้อื่น พูดมากพูดเร็ว ใช้จ่ายเงินฟุ่มเฟือย กิจกรรมทางเพศเพิ่มขึ้น และด้านความคิด มีความคิดหลงผิดคิดว่าตนเองเป็นใหญ่ การตัดสินใจไม่เหมาะสมไม่ยอมรับฟังผู้อื่น และช่วงอาการซึมเศร้าจะมีอารมณ์เศร้า ร่วมกับความรู้สึกเบื่อหน่ายและหมดความสนใจในสิ่งต่างๆ เบื่ออาหาร นอนไม่หลับ อ่อนเพลียไม่มีแรง ไม่มีสมาธิ รู้สึกไร้ค่า และมีความคิดอยากตาย นอกจากนี้ยังพบว่าเป็นโรคที่เกิดอาการซ้ำๆ ได้บ่อย ซึ่งส่งผลต่อคุณภาพชีวิตของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้วเป็นอย่างมาก โดยเมื่อเปรียบเทียบคุณภาพชีวิตกับผู้ป่วยจิตเวชด้วยกัน เช่น โรคซึมเศร้าและโรคจิตเภท หรือผู้ป่วยโรคเรื้อรังทางกาย เช่น ปวดหลังเรื้อรัง พบว่าคุณภาพชีวิตของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้วต่ำกว่าอย่างมีนัยสำคัญ ผู้ป่วยโรคอารมณ์

แปรปรวนชนิดสองขั้วบางครั้งยังมีอาการบางอย่างเหลืออยู่บ้าง ซึ่งต้องการการดูแลบำบัดรักษาและจัดการกับอาการเหล่านั้น การเฝ้าระวังติดตามอาการและการจัดการกับอาการที่เกิดขึ้นของผู้ป่วยเป็นสิ่งสำคัญที่จะช่วยป้องกันการกลับเป็นซ้ำได้ เพื่อที่จะลดความถี่และความรุนแรงของอาการเพื่อให้ดำรงชีวิตอยู่อย่างผาสุก

วัตถุประสงค์

เพื่อศึกษาคุณภาพชีวิต, พฤติกรรมการจัดการกับอาการด้วยตนเอง และการรับรู้ประสิทธิผลของการจัดการอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว

รายละเอียดที่จะปฏิบัติต่อผู้เข้าร่วมการวิจัย

เมื่อท่านยินดีให้ความร่วมมือ ผู้วิจัยทำการประเมินอาการ mania โดยใช้แบบวัด และประเมินอาการซึมเศร้า ถ้าคะแนนจากแบบประเมินอาการ mania มีคะแนนน้อยกว่า 10 และแบบประเมินอาการซึมเศร้า คะแนนน้อยกว่า 11 ผู้วิจัยจึงสัมภาษณ์ท่านตามแบบสอบถามข้อมูลส่วนบุคคล แบบวัดคุณภาพชีวิต และแบบวัดการจัดการกับอาการด้วยตนเองใช้เวลาสัมภาษณ์คนละประมาณ 30-45 นาที เมื่อสิ้นสุดการเก็บรวบรวมข้อมูล ผู้วิจัยกล่าวขอบคุณกลุ่มตัวอย่างที่ให้ความร่วมมือในการศึกษาครั้งนี้ พร้อมเปิดโอกาสให้ท่านซักถามข้อสงสัย ตลอดจนข้อมูลต่างๆที่เกี่ยวข้องกับการทำวิจัยครั้งนี้

ประโยชน์และผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมการวิจัย

การมีความรู้ ความเข้าใจคุณภาพชีวิตและพฤติกรรมการจัดการกับอาการด้วยตนเอง และการรับรู้ประสิทธิผลการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว ซึ่งอาจจะเกิดประโยชน์ต่อผู้ที่เข้าร่วมในโครงการวิจัยนี้ในอนาคตและผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้วคนอื่นๆต่อไปได้

เนื่องจากโครงการวิจัยนี้เป็นเพียงการสัมภาษณ์ เพราะฉะนั้นผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมการวิจัยอาจจะไม่มีแต่อาจจะส่งผลให้ผู้เข้าร่วมวิจัยเสียเวลา

การเก็บข้อมูลเป็นความลับ

ข้อมูลส่วนตัวของผู้เข้าร่วมการวิจัยจะถูกเก็บรักษาไว้ ไม่เปิดเผยต่อสาธารณะเป็นรายบุคคล แต่จะรายงานผลการวิจัยเป็นข้อมูลส่วนรวม ข้อมูลของผู้เข้าร่วมการวิจัยเป็นรายบุคคลอาจมีคณะบุคคลบางกลุ่มเข้ามาตรวจสอบได้ เช่น ผู้ให้ทุนวิจัย, สถาบัน หรือองค์กรของรัฐที่มีหน้าที่ตรวจสอบ, คณะกรรมการจริยธรรมฯ เป็นต้น

ถ้าท่านมีข้อสงสัยหรือรู้สึกกังวลใจกับการเข้าร่วมในโครงการวิจัยนี้ ท่านสามารถติดต่อกับประธานกรรมการจริยธรรมการวิจัยในคน สำนักงานวิจัยคณะฯ อาคารวิจัยและสวัสดิการ คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี



หนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจ (Informed Consent Form)

ชื่อโครงการ คุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว

ชื่อผู้วิจัย นางสาวกนกกรัตน์ พิมพ์รุณ

*ชื่อผู้เข้าร่วมการวิจัย

อายุ

เลขที่เวชระเบียน

คำยินยอมของผู้เข้าร่วมการวิจัย

ข้าพเจ้า นาย/นาง/นางสาว ได้ทราบรายละเอียดของโครงการวิจัยตลอดจนประโยชน์ และข้อเสี่ยงที่จะเกิดขึ้นต่อข้าพเจ้าจากผู้วิจัยแล้วอย่างชัดเจน ไม่มีสิ่งใดปิดบังซ่อนเร้นและยินยอมให้ทำการวิจัยใน โครงการที่มีชื่อข้างต้น และข้าพเจ้ารู้ว่าถ้ามีปัญหาหรือข้อสงสัยเกิดขึ้น ข้าพเจ้าสามารถสอบถามผู้วิจัยได้ และข้าพเจ้าสามารถไม่เข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ โดยไม่มีผลกระทบต่อการรักษาที่ข้าพเจ้าพึงได้รับ นอกจากนี้ผู้วิจัยจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับและจะเปิดเผยได้เฉพาะในรูปที่เป็นสรุปผลการวิจัย การเปิดเผยข้อมูลเกี่ยวกับตัวข้าพเจ้าต่อหน่วยงานต่างๆที่เกี่ยวข้อง กระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น

ลงชื่อ.....(ผู้เข้าร่วมการวิจัย)

.....(พยาน)

.....(พยาน)

วันที่

คำอธิบายของแพทย์หรือผู้วิจัย

ข้าพเจ้าได้อธิบายรายละเอียดของโครงการ ตลอดจนประโยชน์ของการวิจัย รวมทั้งข้อเสี่ยงที่อาจจะเกิดขึ้นแก่ผู้เข้าร่วมการวิจัยทราบแล้วอย่างชัดเจนโดยไม่มีสิ่งใดปิดบังซ่อนเร้น

ลงชื่อ.....(แพทย์หรือผู้วิจัย)

วันที่.....

หมายเหตุ: กรณีผู้เข้าร่วมการวิจัยไม่สามารถอ่านหนังสือได้ ให้ผู้วิจัยอ่านข้อความในหนังสือยินยอมฯ นี้ให้แก่ผู้เข้าร่วมการวิจัยฟังจนเข้าใจดีแล้ว และให้ผู้เข้าร่วมการวิจัยลงนามหรือพิมพ์ลายนิ้วหัวแม่มือรับทราบในการให้ความยินยอมดังกล่าวข้างต้นไว้ด้วย

*ผู้เข้าร่วมการวิจัย หมายถึง ผู้ยินยอมคนให้ทำวิจัย

เอกสารชี้แจงผู้เข้าร่วมการวิจัย
(Participant Information Sheet)

ในเอกสารนี้อาจมีข้อความที่ท่านอ่านแล้วยังไม่เข้าใจ โปรดสอบถามหัวหน้าโครงการวิจัย หรือผู้แทนให้ช่วยอธิบายจนกว่าจะเข้าใจดี ท่านอาจจะขอเอกสารนี้กลับไปอ่านที่บ้านเพื่อปรึกษาหารือกับญาติพี่น้อง เพื่อนสนิท แพทย์ประจำตัวของท่าน หรือแพทย์ท่านอื่น เพื่อช่วยในการตัดสินใจเข้าร่วมการวิจัย

ชื่อโครงการ คุณภาพชีวิตและการจัดการกับอาการด้วยตนเอง ของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว

ชื่อผู้วิจัย นางสาวกนกรัตน์ พิมพ์รุณ

สถานที่วิจัย
ตึกผู้ป่วยนอก แผนกจิตเวช โรงพยาบาลศิริราช

หมายเลขโทรศัพท์ที่ติดต่อได้ทั้งในและนอกเวลาราชการ
เบอร์โทร. 09-1540286

โครงการวิจัยนี้ทำขึ้นเพื่อศึกษาถึงคุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว โดยประโยชน์ที่คาดว่าจะได้รับการวิจัยคือ การมีความรู้ ความเข้าใจคุณภาพชีวิตและพฤติกรรมจัดการกับอาการด้วยตนเอง และการรับรู้ประสิทธิผลการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว ซึ่งอาจจะเกิดประโยชน์ต่อผู้ที่เข้าร่วมในโครงการวิจัยนี้ในอนาคตและผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้วคนอื่นๆต่อไปได้

ท่านได้รับเชิญให้เข้าร่วมการวิจัยนี้เพราะ ท่านเป็นผู้ที่มีอายุ 18 ปีขึ้นไป ได้รับทราบและยอมรับการวินิจฉัยจากแพทย์ว่าเป็นโรคอารมณ์แปรปรวนชนิดสองขั้ว และมีอาการน้อยลง รู้สึกตัวดี มีสติสัมปชัญญะ อยู่ในสภาพที่สามารถให้ข้อมูลได้ มีความเข้าใจและสามารถสื่อสารด้วยการพูดและฟังภาษาไทยได้ดี

จะมีผู้เข้าร่วมการวิจัยนี้ทั้งสิ้นประมาณ 100 คน โดยระยะเวลาที่จะทำวิจัยทั้งสิ้น 2 เดือน

เมื่อท่านเข้าร่วมการวิจัยแล้ว สิ่งที่ท่านจะต้องปฏิบัติคือ ตอบแบบสัมภาษณ์จำนวน 3 ส่วน ได้แก่ แบบสัมภาษณ์ข้อมูลส่วนบุคคล, แบบวัดคุณภาพชีวิต และแบบวัดการจัดการกับอาการด้วยตนเอง จำนวน 1 ครั้ง ซึ่งจะใช้เวลาประมาณ 30-45 นาที

ความเสี่ยงที่อาจเกิดขึ้นเมื่อเข้าร่วมการวิจัย เนื่องจากโครงการวิจัยนี้เป็นเพียงการสัมภาษณ์ เพราะฉะนั้นความเสี่ยงที่ร้ายแรงอาจจะมีแต่อาจจะส่งผลให้ผู้เข้าร่วมวิจัยเสียเวลา ซึ่งถ้าหากพบว่ามี ความผิดปกติใดๆเกิดขึ้นผู้เข้าร่วมวิจัยจะได้รับการดูแลเบื้องต้นและส่งต่อที่เหมาะสมต่อไป

หากท่านไม่เข้าร่วมในโครงการวิจัยนี้ ท่านก็จะได้รับการตรวจเพื่อการวินิจฉัย และรักษาโรค ของท่านตามวิธีการที่เป็นมาตรฐาน

หากมีข้อข้องใจที่จะสอบถามเกี่ยวกับการวิจัย สามารถติดต่อได้ที่ผู้วิจัย คือ นางสาวกนกรัตน์ พิมพ์รุณ

ในการเข้าร่วมวิจัยนี้ ไม่มีค่าใช้จ่ายเนื่องจากเป็นเพียงการตอบแบบสอบถาม

หากมีข้อมูลเพิ่มเติมทั้งด้านประโยชน์และโทษที่เกี่ยวข้องกับการวิจัยนี้ ผู้วิจัยจะแจ้งให้ทราบ โดยรวดเร็วไม่ปิดบัง

ข้อมูลส่วนตัวของผู้เข้าร่วมการวิจัยจะถูกเก็บรักษาไว้ ไม่เปิดเผยต่อสาธารณะเป็นรายบุคคล แต่จะรายงานผลการวิจัยเป็นข้อมูลส่วนรวม ข้อมูลของผู้เข้าร่วมการวิจัยเป็นรายบุคคลอาจมีคณะ บุคคลบางกลุ่มเข้ามาตรวจสอบได้ เช่น ผู้ให้ทุนวิจัย, สถาบัน หรือองค์กรของรัฐที่มีหน้าที่ตรวจสอบ, คณะกรรมการจริยธรรมฯ เป็นต้น

ผู้เข้าร่วมการวิจัยมีสิทธิถอนตัวออกจากโครงการวิจัยเมื่อใดก็ได้ โดยไม่ต้องแจ้งให้ทราบ ล่วงหน้า และการไม่เข้าร่วมการวิจัยหรือถอนตัวออกจากโครงการวิจัยนี้จะไม่ผลกระทบต่อการ บริการและการรักษาที่สมควรจะได้รับแต่ประการใด

หากท่านได้รับการปฏิบัติที่ไม่ตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงนี้ ท่านจะสามารถแจ้งให้ ประสานคณะกรรมการจริยธรรมฯ ทราบได้ที่ สำนักงานคณะกรรมการจริยธรรมการวิจัยในคน ดิโก อุดมเดชวิกรม ชั้น 5 ร.พ.ศิริราช เบอร์โทร. (02)419-7000 ต่อ 6405

ข้าพเจ้าได้อ่านรายละเอียดในเอกสารนี้ครบถ้วนแล้ว

ลงชื่อ...../วันที่.....
(.....)

หนังสือแสดงเจตนายินยอมเข้าร่วมการวิจัย

วันที่..... เดือน..... พ.ศ.....

ข้าพเจ้า อายุ.....ปี อาศัยอยู่บ้านเลขที่.....

ถนน ตำบล อำเภอ

จังหวัด.....รหัสไปรษณีย์ โทรศัพท์

ขอแสดงเจตนายินยอมเข้าร่วมโครงการวิจัย เรื่องคุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว

โดยข้าพเจ้าได้รับทราบรายละเอียดเกี่ยวกับที่มาและจุดมุ่งหมายในการทำวิจัยรายละเอียดขั้นตอนต่างๆ ที่จะต้องปฏิบัติหรือได้รับการปฏิบัติ ประโยชน์ที่คาดว่าจะได้รับการวิจัยและความเสี่ยงที่อาจเกิดขึ้นจากการเข้าร่วมการวิจัย โดยได้อ่านข้อความที่มีรายละเอียดอยู่ในเอกสารชี้แจงผู้เข้าร่วมการวิจัยโดยตลอด อีกทั้งยังได้รับคำอธิบายและตอบข้อสงสัยจากหัวหน้าโครงการวิจัยเป็นที่เรียบร้อยแล้ว

ข้าพเจ้าจึงสมัครใจเข้าร่วมในโครงการวิจัยนี้

หากข้าพเจ้ามีข้อข้องใจเกี่ยวกับขั้นตอนของการวิจัย หรือหากเกิดผลข้างเคียงที่ไม่พึงประสงค์จากการวิจัยขึ้นกับข้าพเจ้า ข้าพเจ้าจะสามารถติดต่อกับ นางสาวกนกรัตน์ พิมพ์รุณ โทรศัพท์ 09-1540286 ได้ 24 ชม.

หากข้าพเจ้า ได้รับการปฏิบัติไม่ตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย ข้าพเจ้าจะสามารถติดต่อกับประธานคณะกรรมการจริยธรรมการวิจัยในคน หรือผู้แทน ได้ที่ สำนักงานคณะกรรมการจริยธรรมการวิจัยในคน ตึกอศุลยเดชวิกรม ชั้น 5 ร.พ.ศิริราช โทร (02) 419-7000 ต่อ 6405

ข้าพเจ้าได้ทราบถึงสิทธิ์ที่ข้าพเจ้าจะได้รับข้อมูลเพิ่มเติมทั้งทางด้านประโยชน์และโทษจากการเข้าร่วมการวิจัย และสามารถถอนตัวหรืองดเข้าร่วมการวิจัยได้ทุกเมื่อ โดยจะไม่มีผลกระทบต่อ การบริการและการรักษาพยาบาลที่ข้าพเจ้าจะได้รับต่อไปในอนาคต และยินยอมให้ผู้วิจัยใช้ข้อมูลส่วนตัวของข้าพเจ้าที่ได้รับจากการวิจัย แต่จะไม่เผยแพร่ต่อสาธารณะเป็นรายบุคคล โดยจะนำเสนอเป็นข้อมูลโดยรวมจากการวิจัยเท่านั้น

ข้าพเจ้าได้เข้าใจข้อความในเอกสารชี้แจงผู้เข้าร่วมการวิจัย และหนังสือแสดงเจตนา
ยินยอมนี้โดยตลอดแล้ว จึงลงลายมือชื่อไว้

ลงชื่อ..... ผู้เข้าร่วมการวิจัย/ผู้แทนโดยชอบธรรม / วันที่.....
(.....)

ลงชื่อ..... ผู้ให้ข้อมูลและขอความยินยอม/หัวหน้าโครงการวิจัย/ วันที่.....
(.....)

ในกรณีผู้เข้าร่วมการวิจัยอ่านหนังสือไม่ออก ผู้ที่อ่านข้อความทั้งหมดแทนผู้เข้าร่วมการวิจัย
คือ..... จึงได้ลงลายมือชื่อ
ไว้เป็นพยาน

ลงชื่อ..... พยาน/ วันที่.....
(.....)

APPENDIX C

The Instruments

เครื่องมือที่ใช้ในการวิจัย

เลขที่แบบสอบถาม.....

โรงพยาบาล.....

คุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว

เครื่องมือที่ใช้ในการวิจัยครั้งนี้แบ่งเป็น 2 ประเภท คือ

1. เครื่องมือที่ใช้คัดเลือกกลุ่มตัวอย่าง
 - 1.1 แบบประเมินอาการซึมเศร้า
 - 1.2 แบบประเมินอาการ mania
2. เครื่องมือที่ใช้สัมภาษณ์กลุ่มตัวอย่างที่เข้าเกณฑ์
 - 2.1 แบบบันทึกข้อมูลส่วนบุคคล
 - 2.2 แบบวัดการจัดการกับอาการด้วยตนเอง
 - 2.3 แบบวัดคุณภาพชีวิต

เลขที่แบบประเมิน.....

วันที่ประเมิน.....

แบบวัด MONTGOMERY-ASBERG DEPRESSION RATING SCALE (MADRS)**ฉบับภาษาไทย**

การให้คะแนนจะให้โดยการประเมินลักษณะอาการ และความรุนแรงของอาการ ผู้ประเมินจะต้องให้เป็นค่าลำดับคะแนน (0, 2, 4, 6) หรือระหว่างค่าลำดับคะแนนนั้นก็ได้ (1, 3, 5)

ในบางกรณีที่ไม่สามารถประเมินจากผู้ป่วยได้โดยตรง ขอให้ประเมินจากข้อมูลแวดล้อมทางคลินิกอื่นๆที่เชื่อถือแทนได้

การประเมินสามารถประเมินโดยใช้ระยะเวลาที่ห่างเท่าใดก็ได้

1. ความซึมเศร้าที่ปรากฏให้เห็น

คะแนน =

หมายถึง ความสลดใจ, ความเศร้าใจ และความสิ้นหวัง (ไม่ได้เป็นเพียงความเบื่อหน่าย ซึ่งเกิดขึ้นเพียงชั่วครั้งชั่วคราว) โดยสะท้อนออกมาเป็นคำพูด, การแสดงออกทางสีหน้าและท่าทาง

ประเมินจากความรุนแรง และความความสามารถที่จะร่าเริงและมีชีวิตชีวา

0- ไม่มีความเศร้า

2- ดูเหมือนไม่มีชีวิตชีวา แต่สดชื่นขึ้นได้โดยไม่ลำบาก

4- แลดูเศร้า และไม่มีความสุขตลอดเวลา

6- ดูเหมือนมีความทุกข์ตลอดเวลา รู้สึกสิ้นหวังอย่างมาก

2.

3.

4.

คะแนน =

10. ความคิดฆ่าตัวตาย

แสดงถึง ความคิดว่าชีวิตไร้ค่าที่จะอยู่ต่อไป มองการตายว่าเป็นสิ่งยอมรับได้ มีความคิดที่จะฆ่าตัวตาย มีการเตรียมการที่จะฆ่าตัวตาย (พฤติกรรมที่พยายามฆ่าตัวตายไม่ควรนำมาใช้ประเมิน)

0- มีความสุขกับการมีชีวิต

2- เบื่อหน่ายชีวิต มีความคิดที่จะฆ่าตัวตายชั่วครั้งชั่วคราว

4- มีความคิดว่าบางครั้งควรตายดีกว่าอยู่ ความคิดที่จะฆ่าตัวตายเป็นเรื่องธรรมดา มองว่าการฆ่าตัวตายเป็นทางออกที่เหมาะสม แต่ยังไม่ถึงกับมีแผนหรือความตั้งใจที่แน่นอน

6- มีการเตรียมพร้อมที่จะฆ่าตัวตาย มีแผนที่ชัดเจนสำหรับการฆ่าตัวตายเมื่อมีโอกาส

คะแนนรวม =

เลขที่แบบประเมิน.....

วันที่ประเมิน.....

แบบวัด YOUNG MANIA RATING SCALE (YMRS) ฉบับภาษาไทย

คำแนะนำในการให้คะแนน

วัตถุประสงค์ของการให้คะแนนแต่ละข้อ คือการประเมินความรุนแรงของความผิดปกติที่เกิดขึ้นกับผู้ป่วย โดยเลือกให้คะแนนเพียงข้อเดียว

ตัวเลือกที่ให้เป็นเพียงแนวทาง ถ้าจำเป็นอาจจะให้คะแนนโดยไม่ต้องใช้ตัวเลือก

สามารถให้คะแนนระหว่างตัวเลือกได้ (1 หรือ ½ คะแนน) ในกรณีที่ระดับความรุนแรงไม่ได้เป็นไปตามตัวเลือกที่ให้ไว้

1. อารมณ์ครื้นเครง

0. ไม่มี

1. เพิ่มขึ้นเล็กน้อย หรืออาจเพิ่มขึ้นจากการซักถาม

2. อารมณ์ครื้นเครงอย่างชัดเจน โดยความรู้สึกของผู้ป่วย, มองโลกในแง่ดี, มั่นใจตัวเอง, ร่าเริง, อารมณ์เหมาะสมกับเนื้อหาเรื่องราว

3. อารมณ์ครื้นเครงมาก, ไม่เหมาะสมกับเนื้อหาเรื่องราว; มีอารมณ์ขันตลอดเวลา

4. สนุกสนานครื้นเครง; หัวเราะอย่างไม่เหมาะสม; ร้องเพลงขึ้นมาไม่สมเหตุสมผล

2.

3.

4.

คะแนน =

10. ความเข้าใจตนเอง

0. มีความเข้าใจตนเอง; ยอมรับว่ามีความเจ็บป่วย; ต้องการการรักษา

1. สงสัยว่าตนเองอาจเจ็บป่วย

2. ยอมรับว่ามีพฤติกรรมเปลี่ยนแปลง, แต่ปฏิเสธความเจ็บป่วย

3. ยอมรับว่าอาจมีพฤติกรรมเปลี่ยนแปลง, แต่ปฏิเสธความเจ็บป่วย

4. ปฏิเสธการเปลี่ยนแปลงพฤติกรรมของตน

คะแนน =

คะแนนรวม =

ส่วนที่ 1 แบบบันทึกข้อมูลส่วนบุคคล

คำชี้แจง ผู้สัมภาษณ์ทำการสัมภาษณ์ข้อมูลส่วนบุคคลตามข้อคำถามที่กำหนดให้ดังต่อไปนี้

1. เพศ

☐ 1. ชาย

☐ 2. หญิง

2. อายุ ปี.....เดือน

3. ศาสนา

☐ 1. พุทธ

☐ 3. อิสลาม

☐ 2. คริสต์

☐ 4. อื่นๆ ระบุ.....

4. สถานภาพสมรส

☐ 1. โสด

☐ 4. หย่า/ร้าง

☐ 2. คู่

☐ 5. แยกกันอยู่

☐ 3. ม้าย

5. ระดับการศึกษา

☐ 1. ไม่ได้เรียน

☐ 4. อนุปริญญา/ปวส.

☐ 2. ประถมศึกษา

☐ 5. ปริญญาตรี

☐ 3. มัธยมศึกษา

☐ 6. สูงกว่าปริญญาตรี

6. อาชีพ

☐ 1. รับราชการ

☐ 5. รับจ้าง ระบุ.....

☐ 2. รัฐวิสาหกิจ

☐ 6. อยู่บ้านเฉยๆ

☐ 3. ทำไร่ ทำนา ทำสวน

☐ 7. อื่นๆ ระบุ.....

☐ 4. ค้าขาย

7. รายได้(บาท/เดือน)

- ☐ 1. ต่ำกว่า 5,000บาท
- ☐ 2. 5,001 - 10,000
- ☐ 3. 10,001 - 20,000
- ☐ 4. 20,001 - 30,000
- ☐ 5. มากกว่า 30,001

8. ระยะเวลาการเจ็บป่วยด้วยโรคทางจิตเวช

- ☐ 1. น้อยกว่า 1 ปี
- ☐ 2. 1-5 ปี
- ☐ 3. 5-10 ปี
- ☐ 4. 10 ปี ขึ้นไป

9. จำนวนครั้งของการเข้ารับการรักษาด้านโรงพยาบาลด้วยโรคทางจิตเวช.....ครั้ง

ส่วนที่ 2 แบบวัดคุณภาพชีวิต

คำชี้แจง

คำถามเหล่านี้ จะถามเกี่ยวกับสุขภาพของท่าน ว่าท่านรู้สึกอย่างไรและสามารถทำกิจกรรมต่างๆ ตามปกติได้อย่างไร ถ้าท่านไม่มั่นใจในการตอบคำถาม โปรดให้คำตอบที่ดีที่สุดเท่าที่ท่านเข้าใจ

โปรดเลือกทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่าน เพียงหนึ่งช่องในแต่ละข้อ

1. โดยทั่วไปที่ผ่านมา 1 เดือน สุขภาพของท่าน.....(เลือกเพียงหนึ่งช่อง)

	ดีเยี่ยม
	ดีมาก
	ดี
	พอใช้
	ไม่ดีเลย

2. เปรียบเทียบช่วง 1 ปีที่ผ่านมา ปัจจุบันสุขภาพของท่าน.....(เลือกเพียงหนึ่งช่อง)

	ดีขึ้นมาก
	ดีขึ้นบ้าง
	เหมือนเดิม
	แย่ลงบ้าง
	แย่ลงมาก

ภาวะสุขภาพของท่านในปัจจุบัน มีผลกระทบหรือเป็นข้อจำกัดในการประกอบกิจกรรมต่างๆ เหล่านี้หรือไม่ มากน้อยเพียงใด (เลือกเพียงหนึ่งช่องในแต่ละข้อ)

	มีผลมาก	มีบ้างเล็กน้อย	ไม่มีผล
3. กิจกรรมที่ต้องออกแรงมาก เช่น วิ่ง ยกของหนักๆ เล่นกีฬาที่ใช้แรงมาก			
4. กิจกรรมที่ออกแรงปานกลาง เช่น ย้ายโต๊ะ ถูกบ้าน			
5. ยกของ หรือหิ้วตะกร้าจ่ายตลาด			
6. เดินขึ้นบันไดหลายๆชั้น			
7. เดินขึ้นบันได 1 ชั้น			
8. ก้มตัว หรือคุกเข่า หรือโค้งตัว			
9. เดินทางระยะมากกว่า 1 กิโลเมตร			
10. เดินทางหลายช่วงเสาไฟฟ้า			
11. เดินทางมากกว่า 30 เมตร หรือประมาณครึ่งทางระหว่างเสาไฟฟ้า			
12. อาบน้ำและแต่งตัว			

13.....
 14.....
 15.....
 16.....
 17.....

เลือกคำตอบที่ตรงกับสุขภาพของท่านให้มากที่สุด.....(เลือกเพียงหนึ่งช่องในแต่ละข้อ)

	ถูกต้องที่สุด	ถูกต้องส่วนมาก	ไม่ทราบ	ไม่ถูกต้องเป็นส่วนใหญ่	ไม่ถูกต้องเลย
33. ฉันดูเหมือนจะป่วยง่ายกว่าคนอื่น					
34. ฉันมีความสุขดีกว่าทุกคนที่ฉันรู้จัก					
35. ฉันคาดว่าสุขภาพของฉันจะแย่ลง					
36. สุขภาพของฉันดีเยี่ยม					

ส่วนที่ 3 แบบสัมภาษณ์การจัดการกับอาการด้วยตนเอง

คำชี้แจง

คำถามนี้มีข้อความเกี่ยวกับวิธีการจัดการกับอาการที่ท่านประสบในบางครั้ง กรุณาฟังข้อความข้างล่างนี้ให้เข้าใจ และเลือกตอบลงในช่องที่ตรงกับความจริงมากที่สุดว่าท่านใช้วิธีการใดบ้างในการจัดการกับอาการต่างๆที่เกิดขึ้น และใช้วิธีการนั้นมากน้อยอย่างไร ได้ผลหรือไม่อย่างไร ก่อนที่ท่านจะมาโรงพยาบาล

โดยผู้วิจัยจะเป็นผู้ทำเครื่องหมาย✓ ลงในช่องคำตอบตามที่ท่านเลือก ขอขอบคุณอย่างมากในความร่วมมือของท่าน

วิธีการที่ท่านใช้ในการจัดการกับอาการ	ความถี่ของการใช้				ไม่ได้ใช้	ได้ผลหรือไม่				
	ใช้ทุกเดือน	ใช้ทุกอาทิตย์	ใช้ทุกวัน	ใช้ตลอด		ไม่ได้ผล	ได้ผลนานๆครั้ง	ได้ผลเป็นบางครั้ง	ได้ผลบ่อยครั้ง	ได้ผลทุกครั้ง
1. พยายามอดทนอยู่ร่วมกับอาการเหล่านั้นให้ได้	1	2	3	4	0	0	1	2	3	4
2. พุดคุยกับแพทย์	1	2	3	4	0	0	1	2	3	4
3. พุดคุยกับพยาบาล	1	2	3	4	0	0	1	2	3	4
4. พุดคุยกับสมาชิกในครอบครัว	1	2	3	4	0	0	1	2	3	4
.....										
.....										
.....										
.....										
.....										
38. วิธีการอื่นๆที่ท่านใช้.....	1	2	3	4	0	0	1	2	3	4

APPENDIX D

Table of symptom self-management strategy

Table A Mean and standard deviation from the highest scores to the lowest scores of symptom self-management scores and percentage of using symptom self-management strategy, categorized by the dimension (n = 100)

Symptom Self- Management Strategy	Frequency of use (%)					<u>M</u>	<u>SD</u>
	Never	Seldom	Some time	Often	Always		
	(0)	(1)	(2)	(3)	(4)		
Distraction						1.73	.37
Listen to music	5.0	5.0	20.0	34.0	36.0	2.91	1.10
Watch T.V.	0.0	6.0	18.0	61.0	15.0	2.85	.74
Read	5.0	10.0	45.0	32.0	8.0	2.28	.93
Work	2.0	11.0	49.0	36.0	2.0	2.25	.76
Take a walk/ go swimming	6.0	13.0	54.0	21.0	6.0	2.08	.91
Talk to my friends	7.0	14.0	50.0	26.0	3.0	2.04	.90
Concentrate on my hobby	9.0	9.0	59.0	20.0	3.0	1.99	.88
Exercise	6.0	17.0	52.0	23.0	2.0	1.98	.85
Go to a party, concert	12.0	27.0	52.0	8.0	1.0	1.59	.84
Pray	40.0	9.0	13.0	35.0	3.0	1.52	1.39
Go to the forest, mountains, beach or park	11.0	84.0	4.0	0.0	1.0	.96	.49
Go for a ride	64.0	11.0	22.0	2.0	1.0	.65	.96
Dance	74.0	6.0	13.0	3.0	4.0	.57	1.08
Write	72.0	9.0	13.0	5.0	1.0	.54	.97

Table A Mean and standard deviation from the highest scores to the lowest scores of symptom self-management scores and percentage of using symptom self-management strategy, categorized by the dimension (continued)

Symptom Self- Management Strategy	Frequency of use (%)					<u>M</u>	<u>SD</u>
	Never (0)	Seldom (1)	Some time (2)	Often (3)	Always (4)		
Isolation						1.58	.39
Stay home	0.0	4.0	34.0	59.0	3.0	2.61	.62
Go to bed	4.0	12.0	33.0	41.0	10.0	2.41	.96
I just live with my symptoms	15.0	43.0	40.0	2.0	0.0	1.29	.74
Attempts to feel better						1.51	.51
Take prescription medication	0.0	0.0	0.0	3.0	97.0	3.97	.17
Hug pillow/ stuffed animal	51.0	2.0	9.0	29.0	9.0	1.43	1.55
Eat	25.0	22.0	48.0	4.0	1.0	1.34	.93
Take a shower/ bath	33.0	20.0	42.0	4.0	1.0	1.20	.98
Use relaxation/ medication	54.0	22.0	14.0	9.0	1.0	.81	1.05
Take herbs	81.0	7.0	10.0	1.0	1.0	.34	.78
Fighting back						1.21	.42
Sing/ Play a musical instrument	19.0	11.0	31.0	27.0	12.0	2.02	1.28
Avoid situations that cause the symptoms to got worse	2.0	39.0	54.0	3.0	2.0	1.64	.67
Try to think positive	2.0	44.0	49.0	3.0	2.0	1.59	.68

Table A Mean and standard deviation from the highest scores to the lowest scores of symptom self-management scores and percentage of using symptom self-management strategy, categorized by the dimension (continued)

Symptom Self- Management Strategy	Frequency of use (%)					<u>M</u>	<u>SD</u>
	Never	Seldom	Some time	Often	Always		
	(0)	(1)	(2)	(3)	(4)		
Use humor	20.0	27.0	47.0	5.0	1.0	1.40	.90
Don't pay attention to the thoughts	15.0	53.0	28.0	2.0	2.0	1.23	.80
Talk to my self	70.0	20.0	6.0	2.0	2.0	.46	.86
Yell back at the voices	91.0	7.0	2.0	0.0	0.0	.11	.37
Help-seeking						1.09	.27
Talk to my family	3.0	14.0	40.0	41.0	2.0	2.25	.83
Talk to the nurse members	3.0	93.0	1.0	3.0	0.0	1.04	.40
Talk to the doctor	2.0	95.0	1.0	2.0	0.0	1.03	.33
Go to a mental health center/ Clinic	94.0	6.0	0.0	0.0	0.0	.06	.24
Escape behavior						.19	.42
Smoke or chew tobacco	85.0	1.0	3.0	10.0	1.0	.41	1.02
Drink alcohol	89.0	7.0	2.0	1.0	1.0	.18	.61
Use drugs like marijuana, cocaine, amphetamine or heroin	100.0	0.0	0.0	0.0	0.0	.00	.00

As shown in Table A, the highest mean score of symptom self-management scores regarding the frequency of use was found in the item "Take medication" ($M = 3.97$, $SD = .17$), followed by "Listen to music" and "Watch TV" ($M = 2.91$, $SD = 1.10$ and $M = 2.85$, $SD = .74$, respectively).

Table B Mean and standard deviation of perceived efficacy of symptom self-management scores and percentage of perceived efficacy of symptom self-management strategy, categorized by the dimension (n = 100)

Symptom Self- Management Strategy	Perceived efficacy (%)					<u>M</u>	<u>SD</u>
	Doesn't	Rarely	Works	Often	Works		
	work	works	some	works	every		
	(0)	(1)	(2)	(3)	(4)		
Distraction						1.92	.44
Listen to music	6.0	2.0	18.0	43.0	31.0	2.91	1.05
Watch T.V.	0.0	2.0	24.0	65.0	9.0	2.81	.61
Read	6.0	1.0	49.0	40.0	4.0	2.35	.83
Work	2.0	4.0	58.0	35.0	1.0	2.29	.66
Take a walk/ go swimming	6.0	5.0	53.0	31.0	5.0	2.24	.87
Talk to my friends	7.0	2.0	53.0	35.0	3.0	2.25	.84
Concentrate on my hobby	9.0	2.0	61.0	26.0	2.0	2.10	.85
Exercise	6.0	1.0	56.0	37.0	0.0	2.24	.75
Go to a party, concert	12.0	3.0	64.0	20.0	1.0	1.95	.87
Pray	40.0	0.0	30.0	27.0	3.0	1.53	1.34
Go to the forest, mountains, beach or park	11.0	7.0	35.0	40.0	7.0	2.25	1.07
Go for a ride	64.0	0.0	27.0	8.0	1.0	.82	1.14
Dance	74.0	2.0	16.0	6.0	2.0	.60	1.08
Write	73.0	6.0	13.0	6.0	2.0	.58	1.06
Isolation						1.48	.39
Stay home	0.0	4.0	40.0	54.0	2.0	2.54	.61
Go to bed	10.0	5.0	42.0	37.0	6.0	2.24	1.01
I just live with my symptoms	21.0	47.0	30.0	2.0	0.0	1.13	.76

Table B Mean and standard deviation of perceived efficacy of symptom self-management scores and percentage of perceived efficacy of symptom self-management strategy, categorized by the dimension (continued)

Symptom Self- Management Strategy	Perceived efficacy (%)					<u>M</u>	<u>SD</u>
	Doesn't work	Rarely works	Works some time	Often works	Works every time		
	(0)	(1)	(2)	(3)	(4)		
Attempts to feel better						1.56	.51
Take prescription medication	0.0	0.0	1.0	4.0	95.0	3.94	.28
Hug pillow/ stuffed animal	51.0	1.0	10.0	34.0	4.0	1.39	1.48
Eat	25.0	17.0	50.0	8.0	0.0	1.41	.95
Take a shower/ bath	33.0	15.0	45.0	6.0	1.0	1.27	1.02
Use relaxation/ medication	56.0	8.0	23.0	9.0	4.0	.97	1.23
Take herbs	81.0	4.0	12.0	3.0	0.0	.37	.81
Fighting back						1.42	.42
Sing/ Play a musical instrument	19.0	4.0	34.0	32.0	11.0	2.12	1.25
Avoid situations that cause the symptoms to got worse	2.0	11.0	76.0	10.0	1.0	1.97	.58
Try to think positive Use humor	2.0	14.0	72.0	11.0	1.0	1.95	.61
Don't pay attention to the thoughts	20.0	10.0	56.0	12.0	2.0	1.66	.99
Talk to my self	15.0	14.0	69.0	1.0	1.0	1.59	.79
Yell back at the voices	71.0	7.0	18.0	3.0	1.0	.56	.96
	94.0	4.0	2.0	0.0	0.0	.08	.34

Table B Mean and standard deviation of perceived efficacy of symptom self-management scores and percentage of perceived efficacy of symptom self-management strategy, categorized by the dimension (continued)

Symptom Self- Management Strategy	Perceived efficacy (%)					<u>M</u>	<u>SD</u>
	Doesn't work	Rarely works	Works some time	Often works	Works every time		
	(0)	(1)	(2)	(3)	(4)		
Help-seeking						2.15	.26
Talk to my family	3.0	1.0	37.0	55.0	4.0	2.56	.73
Talk to the nurse	3.0	0.0	5.0	90.0	2.0	2.88	.57
members							
Talk to the doctor	2.0	0.0	1.0	93.0	4.0	2.97	.48
Go to a mental health	93.0	1.0	2.0	3.0	1.0	.18	.70
center/ Clinic							
Escape behavior						.22	.45
Smoke or chew	83.0	1.0	11.0	4.0	1.0	.39	.91
tobacco							
Drink alcohol	88.0	0.0	11.0	0.0	1.0	.26	.73
Use drugs like	100.0	0.0	0.0	0.0	0.0	.00	.00
marijuana, cocaine,							
amphetamine or heroin							

As shown in Table B, the highest mean score of perceived efficacy of symptom self-management was found in the item “Take medication” ($M = 3.94$, $SD = .28$), followed by “Talk to the doctor” and “Listen to music” ($M = 2.97$, $SD = .48$ and $M = 2.91$, $SD = 1.05$, respectively).

APPENDIX E

License Instruments and Ethic Committee



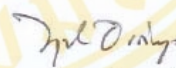
บันทึกข้อความ

ส่วนราชการ	คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี	โทร.	I+๖๘ ต่อ ๑๓๐๑, ๒๔๑๖
ที่	ศร ๐๕๑๓.๐๖/ ๗๑๒๔	วันที่	๑๐ สิงหาคม ๒๕๕๕
เรื่อง	อนุญาตให้ใช้เครื่องมือวิจัย		
เรียน	ประธานคณะกรรมการบริหารหลักสูตรพยาบาลศาสตรมหาบัณฑิต		

ตามหนังสือ มหาวิทยาลัยมหิดล คณะพยาบาลศาสตร์ หลักสูตรพยาบาลศาสตรมหาบัณฑิต ที่ ศร ๐๕๑๓.๐๕(พย.ม.)/๓๕๘ ลงวันที่ ๒ พฤษภาคม ๒๕๕๕ แจ้งว่า นางสาวกนกกรัตน์ พิมพันธุ์ นักศึกษา หลักสูตรพยาบาลศาสตรมหาบัณฑิต สาขาการพยาบาลสุขภาพจิตและจิตเวช คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล ขออนุญาตใช้เครื่องมือวิจัยของ รองศาสตราจารย์รัชชัย กองกนก และคณะฯ เพื่อประกอบการทำวิทยานิพนธ์ เรื่อง “คุณภาพชีวิตและการจัดการกับอาการด้วยตนเองของผู้ป่วยโรคอารมณ์แปรปรวนชนิดสองขั้ว” โดยมี ผู้ช่วยศาสตราจารย์ ดร.อัจฉรา สิริบุญวงศ์ ความละเอียดแจ้งแล้ว นั้น

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี ได้พิจารณาแล้ว ไม่ขัดข้องยินดีอนุญาตให้เก็บข้อมูลได้ที่ภาควิชาจิตเวชศาสตร์ หมายเลขโทรศัพท์ ๐ ๒๒๐๑ ๑๔๓๘

จึงเรียนมาเพื่อทราบ


 (ศาสตราจารย์บุญส่ง องค์พิพัฒนกุล)
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 คณบดีคณะแพทยศาสตร์โรงพยาบาลรามาธิบดี

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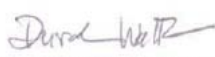
**Documentary Proof of Ethical Clearance Committee on Human Rights
Related to Researches Involving Human Subjects
Faculty of Medicine, Ramathibodi Hospital, Mahidol University**

MURA2006/214

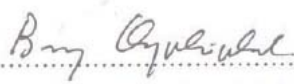
Title of Project	Quality of Life and Symptom Self-Management of Patient with Bipolar Disorder
Protocol Number	ID 06-49-06
Principal Investigator	Miss. Kanokrat Pimroon
Official Address	Faculty of Nursing Mahidol University

The aforementioned project has been reviewed and approved by Committee on Human Rights Related to Researches Involving Human Subjects, based on the Declaration of Helsinki.

Signature of Secretary
Committee on Human Rights Related to
Researches Involving Human Subjects


.....
Assoc. Prof. Duangrudee Wattanasirichaigoon, M.D.

Signature of Chairman
Committee on Human Rights Related to
Researches Involving Human Subjects


.....
Prof. Boonsong Ongphiphadhanakul, M.D.

Date of Approval

June 21, 2006

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Siriraj Ethics Committee

Certificate of Approval		COA no.Si 195/2006
Protocol Title	: QUALITY OF LIFE AND SYMPTOM SELF-MANAGEMENT OF PATIENT WITH BIPOLAR DISORDER.	
SiEC number	: 170/2549	
Principal Investigator/Affiliation	: Miss. Kanokrat Pimroon Faculty of Nursing, Mahidol University	
Research site	: Faculty of Medicine Siriraj Hospital	
Approval includes :	1. EC Submission form 2. Proposal 3. Participant information sheet 4. Informed consent form 5. Questionnaire	
Approval date	: August 7, 2006	
Expired date	: August 6, 2007	
This is to certify that Siriraj Ethics Committee is in full Compliance with International Guidelines For Human Research Protection such as Declaration of Helsinki, The Belmont Report, CIOMS Guidelines and the International Conference on Harmonization in Good Clinical Practice (ICH-GCP)		
 (Prof. Sumalee Nimmannit, M.D.) Chair Person		<u>August 9, 2006</u> date
 (Clin. Prof. Piyasakol Sakolsatayadorn) Dean of Faculty of Medicine Siriraj Hospital		<u>August 10, 2006</u> date

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