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THE EFFECT OF THE SYMPTOM SELF-MANAGEMENT PROGRAM ON PSYCHOTIC RELAPSE FOR PATIENTS WITH CHRONIC SCHIZOPHRENIA

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A Dissertation Submitted in Partial Fulfillment of the Requirements

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การศึกษานี้มีวัตถุประสงค์เพื่อพัฒนาโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกลับเป็นซ้ำของอาการทางจิตในผู้ป่วยโรคจิตเภทเรื้อรังและศึกษาประสิทธิผลของโปรแกรมฯ การวิจัยนี้เป็นการทดลองแบบสุ่มและมีกลุ่มควบคุม กลุ่มตัวอย่างเป็นผู้ป่วยนอกที่ป่วยเป็นโรคจิตเภทเรื้อรังและเคยรับการรักษาตัวในโรงพยาบาลจิตเวชมาก่อน จำนวน 80 ราย สุ่มเข้ากลุ่มทดลองและกลุ่มควบคุม กลุ่มละ 40 คน กลุ่มควบคุมได้รับการพยาบาลตามปกติ ในขณะที่กลุ่มทดลองได้รับโปรแกรมการจัดการกับอาการและการพยาบาลตามปกติ เครื่องมือที่ใช้ในการเก็บข้อมูล ได้แก่แบบประเมินอาการทางจิตฉบับย่อ มีค่าความเชื่อมั่น .87 วิเคราะห์ด้วยสถิติ Kolmogorov Smirnov Z

ผลการศึกษาพบว่ากลุ่มที่ได้เข้าร่วมโปรแกรมการจัดการกับอาการด้วยตนเองมีค่าเฉลี่ยของคะแนนอาการทางจิตน้อยกว่ากลุ่มควบคุม การเกิดการกลับเป็นซ้ำในกลุ่มแควบคุม 69.2% (9 คน) เปรียบเทียบกับในกลุ่มทดลอง 30.8%(4 คน) สรุปได้ว่าสัดส่วนของการกลับเป็นซ้ำของอาการทางจิตของกลุ่มทดลองต่ำกว่าในกลุ่มควบคุม อย่างมีนัยสำคัญทางสถิติที่ระดับ .05 ผลการศึกษาแสดงถึงประสิทธิภาพของโปรแกรมการจัดการกับอาการด้วยตนเองในการป้องกันการกลับป่วยซ้ำใน ผู้ป่วยโรคจิตเภทเรื้อรัง และบ่งชี้ว่าสามารถนำโปรแกรมนี้ ไปใช้ในการรปฏิบัติการพยาบาลจิตเวชได้

สาขาวิชา พยาบาลศาสตร์ ..... ลายมือชื่อนิสิต สุดาพร สถิตยุทธการ .....

ปีการศึกษา 2552 ..... ลายมือชื่ออาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก .....

ลายมือชื่ออาจารย์ที่ปรึกษาวิทยานิพนธ์ร่วม สุรีพร ธนศิลป์ .....

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SUDAPORN STITHYUDHAKRAN: THE EFFECT OF THE SYMPTOM SELF-MANAGEMENT PROGRAM ON PSYCHOTIC RELAPSE FOR PATIENTS WITH CHRONIC SCHIZOPHRENIA. THESIS ADVISOR: ASSOC. PROF. JINTANA YUNIBHAND, Ph.D., THESIS CO-ADVISOR: ASSOC. PROF. SUREEPORN THANASILP, D.N.S, 232 pp.

The purpose of this research was to evaluate the effect of the symptom self-management program on psychotic relapse for patients with chronic schizophrenia. This study was randomized control-group pretest-posttest design. The sample included 80 patients with chronic schizophrenia at a psychiatric hospital. The experimental group received the symptom self-management program together with the conventional nursing care, while the control group received only the conventional nursing care. The psychotic relapse was measured by the Brief Psychiatric Rating Scale (BPRS). The Kolmogorov Smirnov Z was conducted to data analysis.

The findings revealed that the psychotic symptoms in experimental group in 1 month after receiving intervention were lower than that of the control group. The psychotic relapse rate of the control group was 69.2% (9 cases) as compared to 30.8% (4 cases) in the experimental group. In addition, the proportion of patients in the experimental group after receiving the intervention had lower psychotic relapse than the control group (Kolmogorov Smirnov Z=4.52, p-value=0.05). The findings have implication for clinical practice for prevention of psychotic relapse for patients with chronic schizophrenia through changing their cognitive perceptions and encouraging them to use their own management strategies.

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CHAPTER I

INTRODUCTION

Background and significance of the study

Schizophrenia is a severe psychotic disorder and chronic neurobiological disease which is the most common diagnosis among patients admitted to psychiatric hospital (Buchana & Carpenter 2000; Meijel et al., 2006; Shives, 2006). It is one of the major mental health problems in Thailand. As schizophrenia is a critical problem, which all country seriously works together to prevent disease for all people.

Patients with chronic schizophrenia have experienced severe and persistent symptoms that are associated with impairment in daily functions (Herz & Marder, 2002). These patients are in the residual phase of illness which have the psychotic symptoms similar to prodromal phase which the symptoms gradually progress and patients need to receive help before the symptom become severe (American Psychiatric Association, 1994). Moreover, these patients are highly vulnerable to relapses because the illness limits their ability to cope and prevent them from learning to take care of themselves (Herz & Marder, 2002; Kennedy, Schepp & O'Connor, 2000). Previous studies have showed predicting factors to psychotic relapse in schizophrenic patients including shame, having problems with other family members, lack of knowledge about the treatment, economic problem, non-compliance with treatment and drug abuse, a shorter length of hospitalization, stress in life event, and poor self-management with mental illness (Poonsiri et al., 1992; Charoensap, 1995).

The occurrence of psychotic relapse is a characteristic of patients with chronic schizophrenia (Meijel, Gaag, & Grypdonck, 2004). The psychotic relapse rate of schizophrenia has been reported to be 50%-80% within 5-6 years (Robin et al., 1999).

Especially, between 50% and 80% in the year following an episode of psychosis without treatment have highly psychotic relapse (Wiersma, Nienhuis, Slooff, & Giel, 1998). Relapse can cause significant personal distress, interfering with rehabilitation efforts, and resulting in psychiatric hospitalization (Lamberti, 2001). Outcome from schizophrenic psychotic relapse is multidimentional and consists of several domains such as psychopathology, courses of illness, activities of daily living, interpersonal functioning, vocational functioning, need for care, burden for the family, inducing mental stress among family member, and the service delivery system (Holthasen et al., 2007; Mueser & McGurk, 2004). Each psychotic relapse can produce persisting morbidity of the brain which result in problems in family and impose enormous economic on government (Dolder et al., 2003; Lamberti, 2001; Videbeck, 2001). In addition, the problems of psychotic relapse and rehospitalization among clients with schizophrenia, and the corresponding economic, social, and health care costs, are the cause of concerns among mental health providers and health care administrators (Pancer, Addington, & Addington, 2005).

As for Thailand, in 2006, 66.7% (6,863 cases per year) of patients with schizophrenia were outpatients in Somdet Chaopraya Institute of Psychiatric. The average hospitalization time when they have had psychotic symptoms relapse is approximately 3 months after discharged from hospital. Moreover, the consequences of recent national health care policy to decrease length of stay in psychiatric hospital into 3 weeks (21 days) (Department of Mental Health; Thailand, 2005), has influenced the psychotic symptoms relapse (Beebe, 2001; Thompson et al., 2003; Videbeck, 2001; Walker & Eagles, 2002; Dixon, 2002).

The main policy of psyhciatric hospitals in Thailand is to psychosocially rehabilitate patients to be able to conduct self-care and pursue regular life as possible in their community (Department of Menatl, Ministry of Public Health, 2006). The convention psychiatric nursing care in out-patient clinical setting and community for patients with mental illness is composed of nursing care for promoting safety of patients, promoting self-care for daily living, establishing therapeutic relationship, socially inappropriate behaviors, teaching patients about caring, and establishing support and care with community. However, the convention care provides knowledge of taking care of the patient, but not developing the self-competence and self-ability to manage with the early psychotic symptoms. The medication is the mainstay of treatment, and in outpatients ward nurses use psychoeducation to support and promote compliance of the patients in continuously taking medicine, in order to reduce psychotic symptoms and limited these distresses. Moreover, after discharged from the hospitals most patients often have relapse and are readmitted to the hospital. The relatives feel discouraged or hopeless regarding cares for the patients, and finally felt burdened and wanted the patient to be in the hospital instead of at home. The impact of psychotic relapse in schizophrenia on individuals and families is incalculable. Therefore, this is an important problem that needs to be solved.

Studying the person with chronic schizophrenia is very important and significant. In addition, symptoms are significant in schizophrenia because of their disruptive effect on individual functioning and they are potential indicators of impending relapse (Kennedy, Schepp, & O'Connor, 2000). The definition of relapse is used in different ways in the literature. Some studies refer to worsened symptoms, while others refer to hospital admission. Psychotic relapse means a recurrence of

positive symptoms such as delusion and hallucination after being discharged from a psychiatric hospital (Lamberti, 2001).

Previous studies on schizophrenic symptoms have found that most patients had early symptoms within 2-4 weeks before relapse (Meijel et al., 2004). The prodromal symptom or early warning signs are the earliest changes in illness stability and predictorts of psychotic relapse (Bustillo, Buchanan & Carpernter, 1995; Herz & Lamberti, 1995; Liberman, 1995). The prodromal symptoms or early warning signs occur before symptom relapse which significantly influences schizophrenic patients to psychotic relapse (Baker, 1998; Lamberti, 2001; Hamera, Peterson, Young, & Schaumloffel, 1992; Novacek & Raskin, 1998; O'Connor, 1991, 1994).

Prodromal symptoms or early warning signs can be defined as the subjective experiences of early symptoms before the relapse of schizophrenia occur (Herz & Melville, 1980; Herz & Lamberti, 1995). Most early symptoms are anxiety such as tension, anxiousness, insomnia, agitation and tiredness (Herz, 1984; Glimcher et al., 1986; Birchwood et al., 1989; Hamera et al., 1991; Changming, 2003). These occurrences of early symptoms could be explained from the fact that schizophrenic patients are vulnerable to any changes due to the neurological dysfunction that makes them sensitive to intrapersonal, interpersonal, and environmental stressors (Zubin & Spring, 1977 cited in O'Connor, 1994). The chronic schizophrenia outpatients living in a community are very likely to deal with stress-induced situation and health care professionals usually emphasize that stress is a significant factor that may lead to symptom exacerbation and psychotic relapse. The active symptom management is important in decreasing early psychotic symptoms in order to prevent symptom relapse (Baker, 1998; O'Connor, 1991).

The psychotic relapse prevention means promoting mental health which is consistent with the idea of self-help and being self-responsible for health. It implies changing human behavior and draws on a holistic approach to health (Stuart, 2009). The effects of early recognition and early intervention can also be defined in terms of changed experience of the illness. The application of early recognition and early intervention would lead to increased self-efficacy of the patient as regards the self-management of the illness and exercise of control over his or her own life (Meijel et al., 2004). The study of relapse prevention in chronic schizophrenia proposed long-term family psychoeducational approaches, which demonstrated effectiveness for lowering the relapse rate over 1 to 2 years, by reducing expressed emotion, enhancing medication compliance, and improving social functioning (Penn, Mueser, 1996; Huxley, Rendall, Sederer, 2000; Bustillo, Lauriello, Horan, Keith, 2001; Pharoah, Mari, Streiner, 2004). However, there were still conflicting results from this approach. Effects expected from psychoeducation, which directed solely at patients remained unclear (Pekkala, Merinder, 2004; Pitschel-Walz, Leucht, Bäumal, Kissling, Engel, 2001). Cognitive behavioral therapy (CBT) has been demonstrated to be effective and valuable treatments for a range of positive and negative symptoms. However, theoretical developments and advances in cognitive treatments of disorders such as anxiety and depression have also helped to reveal a more complex picture of the transdiagnostic processes operating in schizophrenia. It is becoming clear that it is necessary to develop a broader conceptualization and treatment approach to psychotic symptoms that encompasses the heterogeneity and multifaceted nature of the disorder (Christodoulides, Brown, & Beck, 2008; Rector, Seeman, & Segal, 2003; Sensky, Turkington, Kingdon, et al., 2000).

The most important influenced factor causing psychotic relapse is poor self-management in chronic schizophrenia patients because these patients tend to be unaware of their illness and even misinterpret their symptoms, often ascribing them to something unknown (Anzai et al., 2002; Eckman et al., 1992; Finkelman, 2000; Kanungpairn et al., 2007; Kopelowicz et al., 2003; Meijet et al., 2006; Schaub et al., 1998; Shon & Park, 2002; Sitthimongkol et al., 2007; Stenberg et al., 1998; Tait et al., 2002). However, studies in Thailand and Western countries have shown that some individuals with chronic schizophrenia could identify signs of impending relapse and develop coping strategies to manage their symptoms (Kennedy, Schepp, O'Connor, 2000; Changming, Sitthimongkol, Wattanapailin, & Ngamthipwattana, 2003), but little is known about how they acquire this self-management knowledge (Baker, 1995). Studies using symptom management programs have become increasingly relevant for relapse prevention (Kennedy, Schepp, & O'Connor, 2000; Changming, Sitthimongkol, Wattanapailin, & Ngamthipwattana, 2003; Sitthimongkol, Klainin, Suthiumnuoykul, Likitlertlum, Watchalapong, &Chantarujikapong, 2007).

Previous studies in Thailand and Western countries indicated that patients with chronic schizophrenia developed coping strategies to manage their symptoms (Cohen & Berk, 1985; Kennedy, Schepp, & O'Connor, 2000; Changming, Sitthimongkol, Wattanapailin, & Ngamthipwattana, 2003). Studies using symptom management program have become increasingly relevant for relapse prevention. Early intervention, including close monitoring for prodromal symptoms and psychosocial interventions, together with antipsychotic medications, could be most effective for preventing relapse (Herz, Lamberti, Mintz, et al., 2000; Buccheri, Trystad, Kanas, Waldron, Dowling, 1996; Buccheri, Trystad, Dowling, et al. 2004; Schaub, Behrendt, Brenner,

Mueser, Liberman, 1998). Management rather than cure is the therapeutic issue and important treatment goal is to limit the reappearance of psychotic symptoms by early intervention at the decompensation process (Baker, 1995). In order to prevent psychotic relapse, the improvement of the patients' self-management ability to control those symptoms will be considered. Prevention of psychotic relapse in persons with schizophrenia is much challenged to health care provider in psychiatric practice (Gleeson, 2005; Robinson et al., 1999; Santos, 2003; Thompson et al., 2003). Developing a nursing intervention program could be effective in decreasing psychotic symptoms and preventing psychotic relapse among persons with chronic schizophrenia.

Symptom recognition is an important factor for symptom self-management in patients with chronic schizophrenia (Changming, 2003; Kanfer, 1980, 1991). Recognition of schizophrenic symptoms indicates the abilities to recognize early symptom of illness before it worsens to the extent that hospitalization is needed (Birchwood et al., 1989). Symptom recognition requires careful self-monitoring and learning of past symptom experience for self-evaluation. Therefore, the active symptom monitoring is important in preventing symptom relapse (Baker, 1998; O'Connor, 1991). If these symptoms can not be treated, the impairment in daily functioning, resulting in medication non-adherence, poor monitoring of illness and leading to frequent relapse and rehospitalization will be required (Fisher, Geller, Altaffer, & Bennett, 1992). The extra treatments will cause higher cost and more personal needs.

Psychiatric nurses have an important role in caring for the patients and improving the patients' quality of life. Therefore, it is essential for nursing to develop

a symptom self-management program for helping the patients to effectively manage with early psychotic symptoms while living in the community. Therefore, developing of effective nursing care to improve the symptom self-management ability of the patients with chronic schizophrenia is needed. The purpose of this study is to evaluate the effectiveness of a symptom self-management program (SSMP) on psychotic relapse in patients with chronic schizophrenia and also receiving a conventional nursing care compared with receiving a conventional nursing care only. This study used concepts from the vulnerability-stress model to understand the predicting factors to relapse and the self-management model to manage with these factors. Symptom self-management is the strategies that patients apply to control and decrease psychotic symptoms by utilizing appropriate methods with existing resources (Kanfer & Gaelick-Buy, 1991). The patients should take care of themselves, minimize stress on their living, foster adaptation to life in the community, and continue taking antipsychotic medication to reduce and control psychotic symptoms in order to prevent psychotic symptoms (Lamberti, 2001; McGlashan, & Hoffman, 2000; Meijel, Gaag, Kahn, & Grypdonck, 2003).

Research question

Does the symptom self-management program prevent psychotic relapse in patients with chronic schizophrenic?

Research objective

1. To develop the symptom self-management program on psychotic relapse in patients with chronic schizophrenia.

2. To compare the differences of psychotic relapse between patients with chronic schizophrenia who received a symptom self-management program combined with the conventional nursing care and those who received only the conventional nursing care.

Theoretical framework

The Vulnerability-stress model and The Self-management concept were used as a conceptual framework in this study. The vulnerability-stress model provides a useful framework for understanding the psychopathological and psychotic relapse processes that characterize schizophrenia. This model can be integrated a holistic perspective in which both biological and psychosocial variables in order to explain the onset, course and outcome of schizophrenia (McGlashan & Hoffman, 2000). In addition, this model can be used as a guideline to understand predictive factors of psychotic relapse (Lamberti, 2001; Meijet et al, 2002). This model shows the various factors playing a role in the development of a psychotic relapse. This concept was expanded and developed to describe the causes or relapse, which were classified into four inter-related factors as following (Yank et al., 1993; Nuechterlein et al., 1994):

1. Personal vulnerability factors including abnormal dopamine level, and reducing competence in cognitive process and information analysis;

2. Personal protective factors including compliance with antipsychotic medication, coping skills, and self-efficacy beliefs;

3. Environmental protective factors including the family's ability in problem solving and supportive psychosocial interventions from health care professionals.

4. Environmental stressors including stressful life events, a social with highly stimulating environment, and the family with highly expressed emotional atmosphere such as hypercriticism or emotional over involvement.

This model proposed the basis of relapse prevention program should be the modification of stress and vulnerability factors and emphasize on the protective factors which acts as a buffer against the effects of stress and biochemical vulnerabilities or which minimize the severity of symptoms. The vulnerability-stress model suggests the protective factors to prevent the psychotic relapse including compliance with medication, good coping skills in patients and relatives, and supportive environment (Meijel, 2003).

The self-management proposed the concept of self-management to enhance understanding about mental process in the development of self-control. Self-management is a set of skills that can help people confront and overcome obstacles in their lives and prevent relapse into unwanted behaviors (Kanfer, 1970 cited in Kanfer, 1980). Self-management is a technique that equips individuals with the skills to become self-directed change agents (Kanfer and Gaelick-Buy, 1991). The self-management methods help the clients acquire new behaviors. They need to apply self-control process to modify their behavior by using cognitive process and careful planning. Therefore, self-management is a process deriving from past learning experiences, social beliefs and physical environment which contribute to one's self control. The techniques of self-management can be understood within the context of the processes that occur in self-regulation (Kanfer and Gaelick-Buy, 1991; Kennedy, 1994; Creer, 2000). Self-regulation involves three distincts as follows:

1. Self-monitoring or self-observation. This stage is essentially described as deliberately and carefully attending to his/her own behavior. Past experience will motivate the person to change the behavior that needs to be changed, to anticipate the outcomes of change and to compare the behavior with standard criteria.

2. Self-evaluation. This stage is a discriminating response between self-monitored behavior and subject standard behavior in order to evaluate whether the behaviors should be maintained or discontinued. This process requires the client to continually evaluate the situation and considering the many resources available, to revise or change plan of action as needed (Bruks, 1999).

3. Self-reinforcement. The utilization of self-control mechanism to regulate a given behaviors. After comparing his/her behavior with the standard criteria, the person will have both positive and negative reactions, which affect the expectation of outcomes and subsequent behavior.

The method to deduce the empirical data from the theoretical concept in this study is summarized in Figure 1.

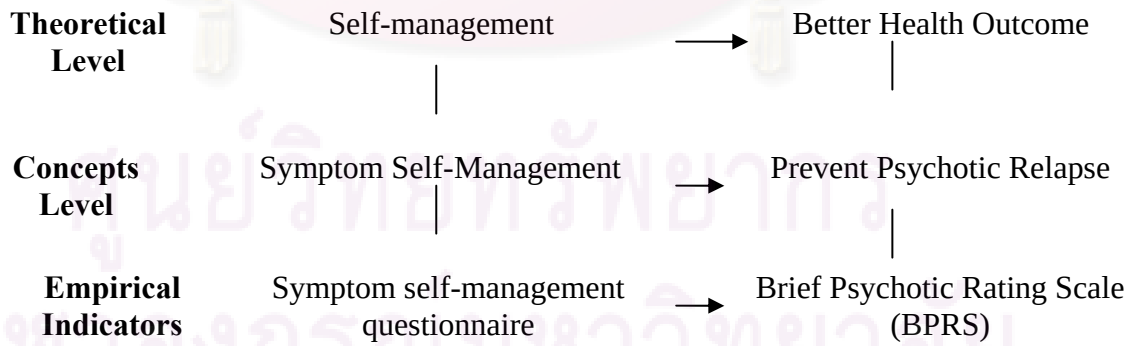

Figure 1 Hierarchy of Middle-Range Theoretical Deduction (Fawcett, 1993)

The researcher developed the Symptom Self-management Program (SSP) that was derived from the Self-management concept. The major concepts of this

program were symptom assessments, symptom self-management strategies, and symptom evaluation. These were specifically used in persons with schizophrenia. Nurse should improve the patient's abilities to manage his/her symptoms.

The program is composed of four phases to manage schizophrenia symptoms. There are 1) the problem assessment and needs identification phase; 2) the preparation for the symptom self-management phase; 3) the practice for the symptom self-management phase; and 4) the evaluation for symptom self-management phase. These are dynamic processes and details of these processes are shown in Figure 2.

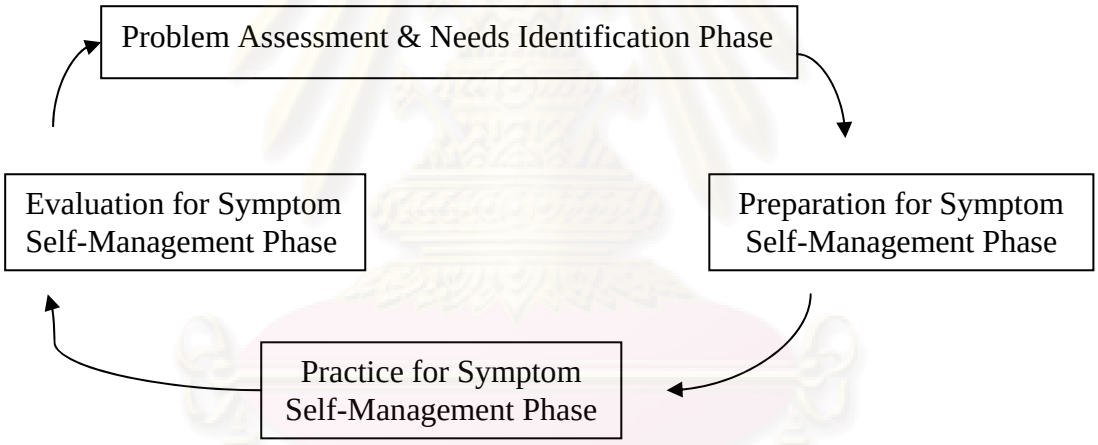

Figure 2 The Processes of a Symptom Self-Management Program

The first phase of the program began with assessment and identified the psychotic symptoms that they experienced. This phase is an important step for a nurse to understand the patients' condition.

After the patient could clearly identify the problem, establishing the goal to solve the problem, the nurse would proceed to preparation phase. The second phase

involves enhancing the patients' knowledge and skill through the disease and symptom self-management education.

The practice for symptom self-management phase, the third step, the patients should set goals to achieve desirable outcomes before they are required to continuously performing the monitoring of symptom of psychotic relapse. In this phase the researcher should encourage the patients to practice while they live at home.

The final step is the evaluation phase. Patients can evaluate daily their psychotic symptoms and symptom self-management at home by using assessment form for self-monitoring. Then they would discuss the situation with the researcher by telephone and also face-to-face meeting. If the desirable outcome can not be achieved, then the whole process would be solved. If the evaluation is positive, the patients will be reinforced to continue the symptom self-management behaviors.

In summary, an elaboration of the Vulnerability-stress model specifies relapse as a result of the interaction among four components: personal vulnerability factors, environmental stress, personal protectors, and environmental protectors. Numerous researches have been focusing on moderator including symptom regulation skill, perceived social support and pharmacology therapy. Therefore, it can be concluded that an intervention to control schizophrenic symptoms and to reduce relapse can be developed in two ways: reducing stressors and increasing moderators. The knowledge from the Vulnerability-stress model was derived to this study in the increasing of personal protective factors which are enhacing of compliance with antipsychotic medication and increasing symptom self-managmenet skill with prodromal symptoms or early warning signs and reducing stress. The concept of self-management is evident that patients with schizophrenia need an initial skill to develop

symptom self-management. That initial skill is cautious about self-monitoring of the behavioral changes developed by using information from past experience for self-evaluation and decision making about symptom management and by receiving reinforcement from other people such as family, friends, and health care professionals. This program was composed of four phases to manage early warning sign symptoms. These are 1) the problem assessment and needs identification phase; 2) the preparation for symptom self-management phase; 3) the practice for symptom self-management phase; and 4) the evaluation for symptom self-management phase.

The conceptual framework of the Symptom Self-Management Program on Psychotic Relapse in this study is summarized in Figure 3.

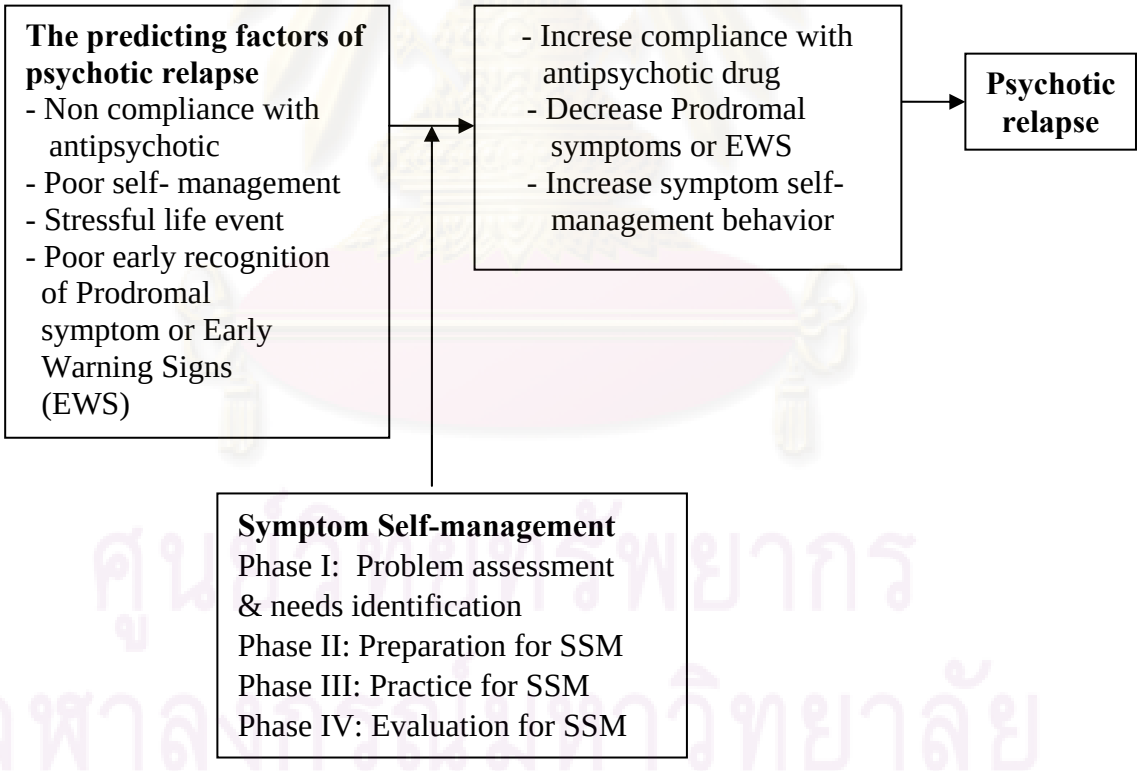

Figure 3 The conceptual framework of the study

Research hypothesis with rationales

The patients with chronic schizophrenia is highly vulnerable to relapse (Herz and Marder, 2002; Kennedy, Schepp, and O'Connor, 2000). The illness limits schizophrenic patients' ability to cope and may prevent them from leaning important communication and social skills. Their symptoms may interfere with their ability to develop options to solve a problem (Finkelman, 1997). Patients with chronic schizophrenia have experienced severe and persistent illness that is associated with impairment in daily functioning and they often fail to follow through outpatient treatment, resulting in medication non-adherence and poor monitoring of illness and leading to frequent relapse, re-hospitalization and housing instability (Fisher, Geller, Altaffer, and Bennett, 1992). Relapse can cause significant personal distress, interfere with rehabilitation efforts, and result in psychiatric hospitalization (Lamberti, 2001).

The predicting factors of relapse in patients with chronic schizophrenia include noncompliance with medication (Gray, Robson, and Bressington, 2002; Ayuso-Gutierrez et al., 1997; Robinson, Woerner, Alvir, & Bilder, 1999; Csernansky and Schuchart, 2002), social isolation (Meltzer et al., 1991; Rajkumar and Thara, 1989 cited in Lader, 1995), the role of expressed emotion (EE) in family (Kavanagh, 1992; Arthur et al., 2002; Addington and Burnett, 2004; Linszen et al., 1997; Neuchterlein et al., 1994; Wuerker, 2000), stressful life events (Brown and Birley, 1968 cited in Lader, 1995), alcohol and substance abuse (Dixon et al., 1991; Regier et al., 1990; Swofford et al., 1996). All these predicting factors to psychotic relapse are in congruent with the cause to psychotic relapse in the vulnerability-stress model.

The vulnerability-stress model suggests the protective factors to prevent the psychotic relapse including compliance with medication, good coping skills in

patients and relatives, and supportive environment (Meijel, 2003; Zubin and Spring, 1977). The components of the vulnerability-stress model are recognizable in the structure of the intervention. With the account being taken of vulnerability of the patients, the ways are sought to avoid stress, to promote coping, and bring about protection from the environment. Studies in the past have revealed that enhancing symptom self-management is a significant strategy that can help the patients to live in a community for a longer period of time and to reduce the recurrence of the illness (Middelboe and Mortensen, 1997; Hamera et al., 1991; Murphy and Moller, 1993; Buccheri, Trygstak, Kanas, and Dowling, 1997; Kennedy, Schepp, and O'Connor, 2000; Sitthimongkol, Chiam-chang, & Aroonpord, 2000). Self-management had a positive impact on the physiological and psychological health status (Clark et al., 1991). The major concepts of this program were symptom assessment, symptom self-management strategies, and symptom evaluation these were specifically used in persons with schizophrenia. The nurse should improve the patient's abilities to manage his/her symptoms. The program is composed of four phase to manage schizophrenia symptoms. There are 1) The Problem Assessment and Needs Identification Phase, 2) The Preparation for the Symptom self-management Phase, 3) The Practice for the Symptom Self-Management Phase, and 4) The Evaluation for Symptom Self-management Phase. The program able to control and decrease psychotic symptoms and relapse in patients with chronic schizophrenia. In addition, the symptom self-management would be of benefits if the patients with chronic schizophrenia received both the conventional nursing care and the symptom self-management program. Therefore, the participants in this study have to receive both of the conventional care and the symptom self-management program.

The research hypothesis was:

The patients with chronic schizophrenic who received the symptom self-management program combined with the conventional nursing care have significantly lower psychotic relapse than those who received only the conventional nursing care.

Scope of the study

The researcher indicated the scope of the study as follows:

1. A randomized control-group pretest-posttest design was conducted to evaluate effects of a symptom self-management intervention on psychotic relapse in patients with chronic schizophrenia.

2. The study was conducted among any gender in patients with chronic schizophrenia who have been attended the outpatient clinic at Galya Rajanagarindra Institute. All participants in the control group and the intervention group received the conventional nursing care from the outpatient clinic. Moreover, participants in the intervention group attended the symptom self-management program during the six-week period.

3. The independent variable was a symptom self-management intervention. The dependent variable was psychotic relapse.

Operational definitions

1. Patients with chronic schizophrenia refer to the persons, who are diagnosised with schizophrenia according to the DSM-IV (1994), at least two acute schizophrenic episodes within the last 5 years, need for long-term neuroleptic treatment, psychopathological stabilization within 4 weeks prior to the study and receiving care from the out-patients clinics at Galya Rajanagarindra Institute.

2. Psychotic relapse refers to the elevation on remitted psychotic symptom on one of the symptom in hallucination, delusion, or disorganized thinking, up to 6 scores as measured by the Brief Psychiatric Rating Scale (BPRS) (Nuechterlein, Miklowitz, Ventura, Gitlin, Stoddard et al., 2006).

3. Psychotic symptoms refer to the positive symptoms, negative symptoms and affective symptoms. The severity of psychotic symptoms was measured by the Brief Psychiatric Rating Scale (BPRS). The higher scores show the severity of the psychotic symptoms.

4. The symptom self-management program refers to the promotion of patients' symptom self-management program that was holistic and continuing nursing care. This program uses the structured protocol of the Symptom Self-management Program (SSP). The symptom self-management program based on the proposed of Kanfer (1991) included self-monitoring, self-evaluation, and self-reinforcement. This program was composed of four phases to manage early warning sign symptoms. These are 1) the problem assessment and needs identification phase; 2) the preparation for symptom self-management phase; 3) the practice for symptom self-management phase; and 4) the evaluation for symptom self-management phase. These are dynamic processes. This program composed of 6 sessions for 6 weeks. The time of each session were session 1 for 60 minutes, session 2 and 3 for 90 minutes, session 4, 5 and 6 depending on patients' needs. The program for Symptom Self-Management was practiced for the Symptom self-management strategies as follows:

Phase 1 The Problem Assessment and Needs Identification

The first phase of the program began with assessing and identifying the symptoms.

Phase 2 The Preparation for Symptom Self-Management

After the patient could clearly identify the problem and establish a goal to solve the problem, the nurse should enhance the patient's knowledge and skill through the disease and symptom management condition.

Phase 3 The Practice for Symptom Self-Management Phase

This phase was implemented the self-management process as following:

3.1 Self-monitoring refers to a patient's observation and recording of early warning sign of psychotic symptoms that influence psychotic relapse.

3.2 Self-evaluation refers to obtaining information from self-monitoring, learning and practicing the management strategies to appropriate psychotic relapse prevention within his/her conditiona and contexts.

3.3 Self-reinforcement refers to the reward that schizophrenic patients plan to give themselves, based on successful performance in managing symptoms or achieving goals.

Phase 4 The Evaluation for Symptom Self-Management

The final step is the evaluation for symptom self-management phase that included the outcome evaluation and terminate the program.

4. The conventional nursing care means the usual psychiatric nursing care in out-patient clinical setting and community. The usual care is composed of the nursing care for promoting safety of patients, promoting self-care for daily living, establishing therapeutic relationship, intervention for delusion, hallucination, socially inappropriate behaviors, teaching patients about caring, and establishing support and care with community.

Expected benefits

1. The study could be used as a guideline for psychiatric nurse in promoting schizophrenic patients' capacity for preventing psychotic relapse in out-patient clinical or community.

2. The result of this study could be used as a guideline for administrators in the development of healthcare system for patients with chronic schizophrenic living in community.

CHAPTER II

LITERATURE REVIEWE

This chapter provides an integrative research review of empirical findings with the state of the summarization studies and research that related to the concept of a symptom self-management on persons with multiple episode schizophrenia. The literature review includes the following:

1. Persons with chronic schizophrenia
   - 1.1 Diagnostic guidelines
   - 1.2 Disease phase
   - 1.3 Symptoms of schizophrenia
   - 1.4 Treatment in schizophrenia
2. Psychotic relapse
   - 2.1 Definition of psychotic relapse
   - 2.2 Process of psychotic relapse
   - 2.3 Early warning signs
   - 2.4 Predicting factor of psychotic relapse
   - 2.5 Evaluation of psychotic relapse
   - 2.6 Intervention for psychotic relapse prevention
3. Nursing Intervention for Prevention of Psychychotic Relapse
4. The symptom self-management concept
   - 4.1 Vulnerability-Stress Model
   - 4.2 Self-management Model
5. The review of the symptom self-management on patients with schizophrenia.

1. Persons with chronic schizophrenia

Chronic schizophrenia refers to a 'residual schizophrenia'. A residual stage in the development of schizophrenic disorder in which there has been a clear progression from an early stage (comprising one or more episodes with psychotic symptoms meeting the general criteria for schizophrenia in ICD10) to a large stage characterized by long-term, though not necessarily, 'negative symptoms' (World Health Organization [WHO], 1992). Chronic schizophrenia who is in stable phase, patients may be asymptomatic; manifest nonpsychotic dysphoric symptoms, such as tension, anxiety, or insomnia; frequently demonstrate deficit symptoms; or have positive symptoms that are of mild intensity (Herz and Marder, 2002). This diagnostic category is used when the individual has a history of at least two previous episodes of schizophrenia with prominent psychotic symptoms. Chronic schizophrenia occurs in an individual who has a chronic form of the disease and is the stage that follows an acute episode and residual phase. In the chronic stage, there is continuing evidence of the illness, although there are no prominent psychotic symptoms. Chronic symptoms may include social isolation, eccentric behavior, impairment in personal hygiene and grooming, blunted or inappropriate affect, poverty of or overelaborate speech, illogical thinking, or apathy (Kaplan and Sadock, 1985 cited in Townsend, 2000).

The persons with chronic schizophrenia have two elements of the illness experience which are important – demoralization and remoralization (Finkelman, 2000). Most persons with chronic schizophrenic experience demoralization – low self-esteem, low self-confidence, and problems with competence. Demoralization results from their illness, past psychiatric treatment, and lack of or limited acceptance of mental illness from the community. The illness limits their ability to cope and may

prevent them from learning important communication and social skills. Their symptoms may interfere with their ability to develop options to solve a problem (Finkelman, 1997).

Patients with chronic schizophrenia have experienced with a severe and persistent illness that is associated with impairment in daily functioning. They often fail to follow through on outpatient treatment, resulting in medication non-adherence and poor monitoring of the illness, and leading to frequent relapses, re-hospitalization, and housing instability (Fisher, Geller, Altaffer, and Bennett, 1992).

Individuals with chronic schizophrenia face multiple barriers to achievement of optimal health, including apathy and poor concentration, sedative effects of medication, and poverty and lack of access to health education and treatment programs. In addition, the symptoms of disease negatively affect their social functioning, which may result in isolation and lack of social support (Beebe, 2007). During the residual phase – which may last up to about 6 months after the onset of the acute episode – patients are highly vulnerable to relapse (Herz and Marder, 2002). The relapse rate of schizophrenia has been reported to be 50%-60% within 5-6 years in Japan (Robin et al., 1999). In addition, the incidence of relapse in patients with schizophrenia who have experienced one or more psychotic episodes is high and range between 50% and 80% in the year following an episode of psychosis without treatment (Wiersma, Nienhuis, Slooff, and Giel, 1998).

1.1 Diagnostic guidelines

For a confident diagnosis, the following requirements should be met:

1. prominent “negative” schizophrenic symptoms, i.e. psychomotor slowing, underactivity, blunting of affect, passivity and lack of initiative, poverty of

quantity or content of speech, poor nonverbal communication by facial expression, eye contact, voice modulation, and posture, poor self-care and social performance;

2. evidence in the past of at least one clear-cut psychotic episode meeting the diagnostic criteria for schizophrenia;

3. a period of at least 1 year during which intensity and frequency of florid symptoms such as delusions, and hallucinations have been minimal or substantially reduced and the 'negative' schizophrenic syndrome has been present;

4. absence of dementia or other organic brain disease or disorder, and of chronic depression or institutionalism sufficient to explain the negative impairments. If an adequate information about the patient's provision history cannot be obtained, and it therefore cannot be established that criteria for schizophrenia have been met at some time in the past, it may be necessary to make a provision diagnosis of residual schizophrenia.

1.2 Disease phases

The American Psychiatric Association Practice Guideline for the Treatment of Schizophrenia (1997) describes three phases of the disorder for the purpose of integrating treatment:

1. Acute phase. This is the phase with florid psychotic symptoms such as delusion and/or hallucinations, involving severely disorganized thinking with greatly impaired functioning, so that individuals are usually unable to care themselves. Negative symptoms become more severe during this phase as well.

2. Stabilization phase. During this phase acute psychotic symptoms gradually decrease in severity. This phase may last for an average of 6 months after

the onset of an acute episode. During this phase the individual is most vulnerable to relapse.

3. Prodromal phase. Symptoms are relatively stable and almost always less severe than in the acute phase. Patients can be asymptomatic. Others can have nonpsychotic symptoms, such as tension, anxiety, depression, or insomnia. Still others may have persisting negative and/or positive symptoms that are usually present in attenuated forms.

1.3 Symptoms of schizophrenia

Patients with schizophrenia have impairments in attention, perception, cognition, information processing and social performance (McBride and Austin, 1996); as a result, they are presented with disorders in various aspects comprising disturbance in thought process, perception, affect and behavior (Kaplan, Sadock, 1998).

The most recent format for the diagnosis of schizophrenia has categorized symptoms as “positive” and “negative” (American Psychitaric Assocation, 1994).

1. Positive symptoms (additional behaviors) are divided into two dimensions; (a) psychoticisim and (b) disorganization. Symptoms within these dimensions include hallucinations, delusions, bizarre behavior, and formal thought disorders (Arndt, Anderasen, Flaum, Miller, and Nopoulos, 1995). Hallucination is false sensory perception not associated with real external stimuli and may involve any of five sense. The most common form of hallucination in schizophrenia is auditory hallucination and visual hallucination, which leads to suffer in the patients. Delusions are mistaken or false beliefs about self or the environment that are firmly held even in the face of disconfirming evidence. Delusions may take several forms such as

persecutory delusion, grandeur delusion and nihilistic delusion. Disorganized speech is the out-come sign of disordered thoughts and may range from less severe forms, where the person moves rapidly from one topic to another, to more severe forms, where the person's speech can not be logically understood. Disorganized behavior may present as agitated, non-purposeful, or random movement and as catatonic (American Psychitaric Assocation, 1994).

2. Negative symptoms (deficit of behaviors) have become one of the five characteristic symptom clusters (American Psychitaric Assocation, 1994) because of their impact on functioning (Eaton, Thara, Federman, Melton, and Liang, 1995). Negative symptoms are less dramatic but just as debilitating as the positive symptoms and are usually found in residual phase. Andresen's (1982, 1983) scale for negative symptoms (SANS) has delineated negative symptoms: (a) affective flattening, (b) alogia (poverty of thought and cognition), (c) avolition-apathy, (d) anhedonia-associality (lack of pleasure-willingness to participate), and (e) inattentiveness. Flattened affect described this restricted range of facial and bodily expression of emotion as well as poor eye contact. The alogia are empty verbal responses. This poverty of speech is thought to be symptomatic of diminished thoughts and is different from a refusal to speak.

Because of their impact on functioning (Eaton et al., 1995), the onset of positive symptoms has been reported to be more reliable than negative symptoms (Breiser et al., 1991), but through studies of the early course of illness have shown that about 70% of patients with schizophrenia develop negative symptoms before positive symptoms (Hafner et al., 1992). Among the most prominent symptoms of acute schizophrenia are delusions and hallucinations (McCann and Bowers, 2005).

Many clients have a long duration of illness and continue to experience psychotic symptoms and beliefs despite neuroleptic medication. As a result, re-admissions are frequent. Improving care outcomes for schizophrenic patients is therefore a challenge for mental health nurses (Chan et al., 2000).

The progression of schizophrenia can be divided into three phases: 1) prodromal phase, in which the symptoms gradually progress and patients need to receive help before the symptom become severe; 2) active phase, in which patients suffer active and severe symptoms and are usually present with positive symptoms; and 3) residual phase, in which patients have symptoms similar to the prodromal phase and the symptoms are mostly negative e.g. withdrawal, inactive and ignoring one's self. Psychotic symptoms such as hallucination or delusions may still be present at the residual phase but not as severe as in the earlier phase (American Psychitaric Assocation, 1994).

Evidences from previous study demonstrated that most schizophrenia patients are chronically ill and have severe symptoms. Approximately two-third of the patients tends to have relapse of illness and each psychotic episode leads to the deterioration of function (American Psychitaric Assocation, 1994). It was found that the psychotic relapse rate of schizophrenia has been reported to be 50%-80% within 5-6 years (Robert and Heinz, 2000; Robin et al., 1999). In Thailand, a five-year follow-up study found that 22 percent of the schizophrenic patients suffered the illness once or 2-3 times before complete recovery; 35 percent suffered frequent relapse of illness and had residual symptoms or deterioration with dominant negative symptoms (Lortrakul, 1996 cited in Changming et al., 2003).

The consequent from schizophrenia and the psychotic relapse have impacted on patient's functioning and daily life living. These suffering from the symptoms would be affected on various living problem including employment, residency, interpersonal relationship and living with the family. Therefore, this is essential for health care staff and related organizations have to study and develop the treatment and management of schizophrenia with higher efficacy in controlling the illness.

1.4 Treatment in schizophrenia

Treatment and management of individuals with schizophrenia should be comprehened and integrated because the disorders affects almost every aspect of a person's thinking, feeling, and behavior, and their manifestations vary over time. It should include approaches that may be necessary to deal with cognitive deficits, impairment in functioning and judgment, and noncompliance with treatment (Herz and Marder, 2002). Accordingly, treatment strategies differ for each phase of the disorder. Active involvement with families should be offered routinely, emphasizing education about the illness, problem solving, and support. Therefore, it is important of the variety of interventions required to treat and manage individuals with schizophrenia (Table 1).

Table 1 Treatment stages in schizophrenia (Herz and Marder, 2002)

Stage	Clinical characteristics	Treatment goals
Acute 4-8 weeks	Acute psychotic symptoms, hallucinations, delusions, disorganized speech and behavior	Reduce psychotic symptoms with antipsychotic medications; protect patient from dangerous psychotic behavior
Stabilization (2-6 months)	Symptoms are improved but the patient remain vulnerable to relapse if drug dose is reduced or if there is environmental stress	Reduce the likelihood of symptom exacerbation; develop a plan for long-term treatmen
Stable (indefinite)	Positive symptoms have been minimized or eliminated; negative symptoms may dominate the clinical presentation	Prevent psychotic relapse; reduce negative symptoms; facilitate social rehabilitation

Goal of treatment for acute episodes are to reduce their frequency and symptoms severity while limiting harmful behaviors that may occur. Goals for patients in the stable phase are to eliminate or minimize symptoms while enhancing role functioning. When the patient is in the stable phase, it can be helpful for the health care provider to review the events, which may have precipitated relapse and the patient's prodromal symptoms and behavior before the previous hospitalization. With this understanding, patient may develop more insight into the events leading up to relapse and recognize the development of early symptoms of future relapses.

The therapy commonly used nowadays includes pharmacological therapy and psychosocial therapy.

1. Pharmacological therapy

Pharmacological therapy is the mainstay of treatment, without which most psychosocial treatment would not be possible. Antipsychotic are the primary medication for schizophrenia, with major effects on the reduction of psychotic

symptoms and prevention of relapses (Kane and Marder, 1993; VanDongen, 1997). There is overwhelming evidence that antipsychotics can be effective in treating the symptoms of schizophrenia (Thornley and Adams, 1998). The provision of support encouraging patients to cooperate with treatment and maintain compliance with oral medication will not only control the symptoms but also reduces the relapse of schizophrenia and improves long-term prognosis of the illness (Rucher et al., 1997).

A synthetic review of three research studies on outcomes of psychopharmacology have found that continuing antipsychotic drugs significantly reduced relapse rate for at least six months (Nadeem, McIntosh and Lawrie, 2003). Antipsychotic agents have effects on neurochemical disorders, which are probably the cause of illness; as a result, the psychotic symptoms will be subsided. Generally, schizophrenic symptoms will be improved within three weeks after the patient received sufficient does of antipsychotic drug. When the symptom reduces and stable symptom, the physicians will gradually reduce medication does and maintains the dose at the stable level (Herz and Marder, 2002). Approximatel, 70% of the patients receiving conventional neuroleptics experience a reduction in positive symptoms during the acute phase of the treatment (Dixon et al., 1995). During the 12 months following an acute schizophrenia episode, about 23% of patients taking neuroleptic medication and 70% of those not taking medication will relapse (Dixon et al., 1995).

However, the failure of many patients with schizophrenia to follow their prescribed medication regimen has significantly undermined the promise of antipsychotic medication (Zygmunt et al., 2002). Rates of medication nonadherence among outpatients with schizophrenia have been found to approach 50% during the first year after hospital discharge (Weiden and Olfson, 1995). The actual rate of nonadherence may be

even higher, as the estimates do not account for individuals who refuse treatment or drop out of follow-up studies (Zygmunt et al., 2002). Noncompliance was also clearly associated with relapse of illness and increased necessity for hospital admission (Kane, 1989 cited in Razali and Yahya, 1995).

Moreover, there is little evidence that progress has been made in increasing adherence, despite the advent of newer antipsychotic medications with less severe and disabling side effects (Young et al., 1999). Common side effects of antipsychotic drugs include autonomic side effects such as dry mouth, dry throat, blurred vision, constipation, difficult voiding, hypertension and side effects on extrapyramidal systems such as tremors, rigors, slow movement, stiff neck, rolled-up eyes and akathesis. These side effects cause patients' distress and are major causes of non-compliance with treatment among schizophrenic patients (Herz and Marder, 2002).

The administration of anticholinergics is indicated to reduce these side effects (Casey, 1995). Moreover, new antipsychotic drugs currently available can improve cognitive function, memory and attention with fewer side effects which are lozapine, risperidon, olanzapine and zipasidone, etc. (Meltzer and McGurk, 1999).

2. Psychosocial therapy

Psychosocial treatment seeks to improve the management of schizophrenia (e.g., coping with symptoms, relapse prevention) and to enhance functioning in areas such as independent living, relationships, and work (Mueser and McGurk, 2004). Psychosocial treatment is a treatment as well as a rehabilitation method essential for patients with schizophrenia as it has been found that although antipsychotic drugs are effective in controlling the symptoms, they can not treat

psychosocial factors causing relapse of schizophrenia. Even if the patients are willing to take the medications regularly, they are still at risk of having relapse of illness by 30-40 percent (Hogarty and Ulrich, 1998; Beebe, 2007).

Moreover, the results from the previous have shown that combination treatment of psychopharmacology and psychosocial therapy can reduce the frequency of relapse more than the treatment with psychopharmacology alone (Mojtabai et al., 1998).

Even though, most treatment with schizophrenic patients focuses on compliance with psychopharmacology and various programs of psychosocial treatment, the patients are still at risk of relapse. Therefore, health providers have been interested in the factors that can prevent the relapse of illness and in developing more effective psychosocial treatment. Attention has been paid on the promotion of symptom self-management skills in patients with schizophrenia because the previous studies have shown that training schizophrenic patients to increase ability in symptom self-management can improve their functioning and can reduce severity of psychotic symptoms (Van Den Hout et al., 1995). Therefore, symptom self-management is an important factor that helps the patients to live in a community for a longer duration and reduces relapse.

2. Psychotic relapse

2.1 Definition of psychotic relapse

Individuals with schizophrenia have a great vulnerability to biological, psychological, and social stressors that can lead to relapse (Herz and Marder, 2002). Relapses in psychotic symptoms can occur at any time during treatment and recovery. Relapse is not inevitable; however, it occurs with sufficient regularity to be a major

concern in the treatment with schizophrenia. The definition of relapse is used in different ways in the literature. Some studies refer to worsened symptoms, while others refer to hospital admission. Nevertheless, there are no generally accepted criteria for relapse. In general, the term *relapse* is used to refer to a deterioration or recurrence of positive rather than negative features. However, the boundaries of term *schizophrenic relapse* are not entirely clear (Ayuso-Gutiérrez and del Río Vega, 1997). Previous studies by Almond et al. (2004) conducted the study with psychotic relapse were characterized by higher rates of hospitalization (63%), reemergence of psychotic symptoms (60%) and aggravation of positive and negative symptoms (43%).

Therefore, psychotic relapse means the emergence of psychotic symptoms in psychopathology with either the recurrence of psychotic symptoms to the point that crisis intervention or hospitalization is required, intensification or worsening of positive symptoms that often composed of delusions, hallucinations and conceptual disorganization after discharged from psychiatric hospital (Burn, Fiander, and Audini, 2000; Lamberti, 2001). Relapses can occur and are very detrimental to the successful management of this disorder. With each relapse, there is a longer period of time to recover, may result in the growth of residual symptoms (Shepherd et al., 1989), and accelerating social disablement (Hogarty et al., 1991).

2.2 Process of psychotic relapse

Since the literature on the process of relapse was largely anecdotal, Herz and Melville (1980) proposed the process of psychotic relapse in persons with schizophrenia (figure 4), which indicated that psychotic relapse is a complex process that occurs over time and developed very gradually in prodromal phase with preceded

by early warning signs (EWS) during a period from a few days, weeks or even months.

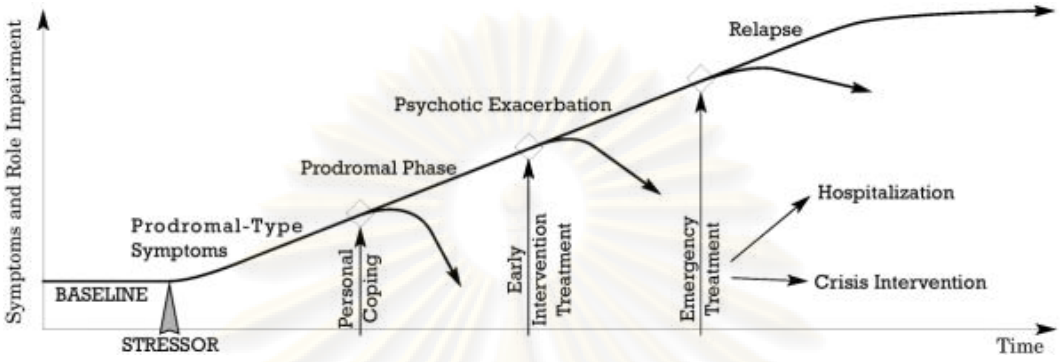

Figure 4. Process of relapse in persons with schizophrenia (Herz and Melville, 1980)

From figure 4, the baseline indicates the level of stable symptoms which a schizophrenic persons experiences on a more or less permanent basis. This level can differ considerably from person to person; some can be more or less free of symptoms, while another can be constantly plagued by persisting symptoms.

Prior to a relapse, people will often experience changes in their feelings, thoughts and behaviours in prodromal phase or called early warning sign (EWS) that occurs last between a few days, weeks or even months. If EWS increase slightly, relative to the baseline, many persons alter their behavior in such a way as to ensure that the symptoms decrease or do not affect them so much. In the event that the symptoms get worse, the person's ability to cope will not be sufficient, the early intervention will be necessary to prevent psychotic relapse.

In conclusion, the process of psychotic relapse in persons with schizophrenia is developed very gradual and varies from person to person. The period of prodromal signs that most often proceeded by warning signs from a few days, weeks or even

months which offers opportunities for preventive intervention by using early intervention.

2.3 Early Warning Signs (EWS)

Early warning signs of psychosis can be defined as subjective experiences, thoughts, and behaviors of the patient that occur in the phase preceding a psychotic relapse (Heinrichs and Carpenter, 1985; Herz and Melville, 1980). Prodromal symptoms–often called early warning signs–are the earliest noticeable signs of relapse. Descriptive research studies on prodromal symptoms or "early warning signs" of person with schizophrenia have been useful in describing the symptoms of concern in this disorder (Bustillo, Buchanan, and Carpenter, 1995; Marder et al., 1991). Prodromal signs and symptoms are considered the earliest changes in illness stability and may be predictive of an impeding deterioration or relapse (Bustillo, Buchanan, and Carpenter, 1995; Herz and Lamberti, 1995; Liberman, 1995). The type of EWS experienced in the month prior to relapse and used in this prediction, include prodromal signs (e.g. dysphoria, increase anxiety, sleep and appetite disturbance) and incipient psychosis (e.g. the beginning of auditory hallucinations as occasional whispers, or delusions as vague feelings of unease) (Jorgensen, 1998). Common examples of prodromal symptoms are insomnia, tension and nervousness, eating less, difficulty concentrating, social withdrawal, auditory hallucinations, depressed mood, loss of interest, decreased personal hygiene, and irritability (Herz and Melville, 1980). These occur of early symptom could be explained from the fact that schizophrenic patients are vulnerable to any changes due to the neurological dysfunction that makes them exquisitely sensitive to intrapersonal, interpersonal, and environmental stressors (Zubin and Spring, 1977 cited in

O'Connor, 1994). Moreover, schizophrenic outpatients living in a community are very likely to deal with stress-induced situation and health care professionals usually emphasize that stress is a significant factor that may lead to symptom exacerbation.

Prodromal symptoms vary considerably among patients, but tend to remain relatively consistent within a given individual from relapse to relapse. Prodromal symptoms hence could be a clue to better understand the clinical development and pathophysiology of illness manifestation and relapse.

It can be concluded that this study, the early warning signs are symptoms of anxiety such as tension, anxiousness, insomnia, agitation and tiredness (Herz, 1984; Glimcher et al., 1986; Birchwood et al., 1989; Hamera et al., 1991; Changming, 2003).

2.4 Predicting factors of psychotic relapse

The main factors influencing relapse are noncompliance with antipsychotic medication (Giron & Gomez-Beneyto, 1998; Lamberti, 2001; Muller, 2004; Robinson et al., 1999; Taylor et al., 2005), negative symptoms, and poor premorbid adjustment (Giron & Gomez-Beneyto, 1998; Hollis, 2000, 2003). Substance abuse should be considered in all patients with worsening symptoms (Talyor et al., 2005). Family history o schizophrenia, insidious onset, poor premorbid functioning, severity of negative symptoms, severity and duration of untreated psychosis are associated with relapse of schizophrenia (Bromet, Naz, Fochtmann, Carson, &, Tanenberg-Karant, 2005; Taylor et al., 2005). The course of schizophrenia disorders is likely to be product of a number of different influences that can be broadly separated into vulnerability stressor and protective factors (Nuechterlein et al., 1994). Stress and protective factors are potentially relevant to psychotic

exacerbation or relapse. People with schizophrenia have neurology dysfunction that makes them exquisitely sensitive to intrapersonal, interpersonal, and environmental stressors (Liberman, 1986; Nuechterlein et al., 1994; Zubin and Spring, 1977). The vulnerability-stress model suggests that the occurrence of a full-blown psychotic relapse in persons with schizophrenia depends upon a complex interaction between the personal vulnerability and environmental stressors, including, the absence of protective factors that increase an individual's liability above the threshold will control in the onset or exacerbation or relapse of psychotic symptoms (Birchwood, 2000; Lamberti, 2001; Meijel et al., 2003; McGlashan and Hoffman, 2000). In addition, the most important influenced factor to relapse is poor self-management in schizophrenic patients because the psychiatric patients tend to be unaware of their illness and even misinterpret their symptoms, often ascribing them to something unknown (Eckman et al., 1992; Schaub et al., 1998; Stenberg et al., 1998; Finkelman, 2000; Anzai et al., 2002; Shon and Park, 2002; Tait et al., 2002; Kopelowicz, et al., 2003; Meijel et al., 2006; Kanungpairn et al., 2007; Sitthimongkol et al., 2007). Periods of relative stability alternate with the periods in which psychotic symptoms are prominent. Therefore, chronic schizophrenia are anxious and confused; social relations become disturbed; dependence on care service increase; and social recovery can last from months to years.

Vulnerability factors that increase psychotic relapse may include a) pharmacological factors, such as noncompliance with medication and dosage, b) psychosocial factors including high expressed emotions, c) alcohol and drug uses (Ayuso-Gutiérrez and del Río Vega, 1997; Malla, Cortese, Shaw, and Ginsberg, 1990), and 4) poor self-management skill (Eckman et al., 1992; Schaub et al., 1998; Stenberg

et al., 1998; Finkelman, 2000; Anzai et al., 2002; Shon and Park, 2002; Tait et al., 2002; Kopelowicz, et al., 2003; Meijel et al., 2006; Kanungpairn et al., 2007; Sitthimongkol et al., 2007). In term of protective factors including compliance with medication, good coping skills in patients and relatives, and supportive environments can lessen symptoms and lower the risk of relapse (van Meijel, 2003; Zubin and Spring, 1977). In particular, family systems can encourage patients to take medications, avoid substances, develop communication and problem solving skills, and get help quickly as needed. Obviously, the vulnerability-stress model suggests that stress management should benefit those with schizophrenia. The way stress affects vulnerability may be obvious, but its mechanism in not clear (Gispen-de Wied and Jansen, 2002).

In conclusion, the predicting factors of psychotic relapse in schizophrenic patients are included non adherence to medication and psychosocial stressors, especially high express emotion in family and stressful life event. These factors confirmed by the vulnerability-stress model which proposed that occurrence of a full-blown psychotic relapse depends upon a complex interaction between an individual's degree of the personal vulnerability factors, the environmental stressors, and the absence of protective factors that increase an individual's liability above the threshold for an exacerbation or relapse of psychotic symptoms (Lamberti, 2001; McGlashan and Hoffman, 2000; Meijel et al., 2003).

2.5 Evaluation of psychotic relapse

Psychotic relapse can be measured by either increase or worsening of psychotic symptoms or rehospitalization (Burns, Fiander and Audini, 2000). Kane et al. (1983) defined relapse criteria as an increased of "2" or more points on one of

conceptual disorganization, hallucination, suspiciousness, and unusual thought content. Marder et al. (1984) defined psychotic relapse as unfavorable outcome had three categories: (1) psychotic exacerbation was defined as an increase of 3 or more BPRS points on the Thinking Disturbance factor that includes Unusual Though Content, Hallucinations, or Conceptual Disorganization or the Hostile Suspiciousness factor, which includes Hostility, Uncooperativeness, and Suspiciousness, (2) relapse was the failure to return to a baseline medication dosage, and (3) hospital admission.

Birchwood et al. (1989) proposed that if scores of posttest are more than base line and increase to two symptoms, means he or she has psychotic relapse. Meijel et al (2003) stated that if scores that elevation on a remitted psychotic symptom up to two symptoms can be determined psychotic relapse. While, this study using the relapse criteria of Nuechterlein, Millowitz, Ventura et. al (2006) proposed that the elevation on remitted psychotic symptom on one of the symptom in hallucination, delusion, or disorganized thinking, up to 6 scores on Brief Psychiatric Rating Scales (BPRS) can be determined psychotic relapse.

The Brief Psychiatric Rating Scale (BPRS) (Kolakowska, 1976 cited in Kenedy, Schepp, O'Connor, 2000) is an effective clinician-administered and research tool that was designed to assess psychiatric symptoms or treatment change in psychiatric patients in a rapid and efficient and economic way. It was developed in the late 1960s as a short scale for measuring the severity of psychiatric symptomatology. It was developed primarily to assess change in psychotic inpatients and covers a broad range of area. In comparison to other interview and observational tools used in psychiatric assessment, this instrument appears responsive to treatment change. It is brief and does not take long to administer. This instrument consists of three subscales

which covers 18 common psychiatric symptoms as following: 1) Positive psychotic symptoms including somatic concern, conceptual disorganization, grandiosity, hostility, suspiciousness, hallucinations behavior, unusual thought content, excitement and disorientation, 2) Negative psychotic symptoms including emotional withdrawal, mannerism and posturing, motor retardation, uncooperativeness, and blunted affect, and 3) Affective symptoms including, anxiety, guilt feelings, tension, inappropriate affect and depressive mood.

The BPRS involves a semistructured interview and a symptom severity rating on 18 items (or 21 items, if the expanded version is used). The scale was developed for use with the patients with the diagnosis of schizophrenia (Overall and Gorham, 1962 cited in Kenedy, Schepp, O'Connor, 2000). Score can range from 18-126. Each item is rated on a seven-point scale varying from 'not present' to 'extremely severe'; with high scores indicating more sever symptoms. Rating on the BPRS scale is based upon observation of the patient and verbal report by the patient. Minimum interrater reliability with a criteria rater for each BPRS subscale was .80 or higher (p [is less than] .001, intraclass correlation coefficient), and internal consistency (for one sample) was good. As for using this instrument in this study, the content was validated by 5 experts, 1 physician, 2 nurse instructor, and 2 practical nurses. The BPRS tried out with 30 patients with chronic schizophrenia, the resultant reliability for the questionniare was .87. The inter-rater reliability between the researchers with 2 expert psychiatric nurses was .85. In addition, the researcher and the research assistant were trained to use this instrument under supervisor of psychiatrist who is an expert in this area.

The measure of this instrument would be implemented for both groups in two times which were at the day of recruit to the study and 10th week after the day of recruit.

2.6 Interventions for psychotic relapse prevention

The prevention and mental health promotion are important parts of psychiatric care. One of the reasons primary prevention is gaining momentum is because the health care system is beginning to provide some economic incentive for preventing illness rather than treating it. Another reason is that it has been found that good mental health improves the quality of life for people with serious physical illnesses and may contribute to longer life in general (NFCMH, 2003 cited in Stuart, 2009). Therefore, the psychotic relapse prevention means promoting mental health which is consistent with the idea of self-help and being self-responsible for health. It implies changing human behavior and draws on a holistic approach to health (Stuart, 2009).

The primary prevention activities in psychiatric care have to basic aims (Stuart, 2009):

- To help people avoid stressors or cope with them more adaptively
- To change the resources,policies, or agents of the environment so that they no longer cause stress but rather enhance people's functioning

A review of researches conducted in Thailand and in foreign countries reveals that the psychotic relapse prevention at present is based on 5 major concepts, as detailed below.

1. The compliance therapy

Compliance therapy is the mainstay of treatment, without which most psychosocial Treatment would not be possible. Antipsychotic are the primary medication for schizophrenia, with major effects on the reduction of psychotic symptoms and prevention of relapses (Kane and Marder, 1993). There is overwhelming evidence that antipsychotics can be effective in treating the symptoms of schizophrenia (Thornley and Adams, 1998). However, the failure of many patients with schizophrenia to follow their prescribed medication regimen has significantly undermined the promise of antipsychotic medication (Zygmunt et al., 2002). Rates of medication nonadherence among outpatients with schizophrenia have been found to approach 50% during the first year after hospital discharge (Weiden and Olfson, 1995). The actual rate of nonadherence may be even higher, as the estimates do not account for individuals who refuse treatment or drop out of follow-up studies (Zygmunt et al., 2002). Moreover, there is little evidence that progress has been made in increasing adherence, despite the advent of newer antipsychotic medications with less severe and disabling side effects (Young et al., 1999). Summarization of previous studies on interventions to improve adherence to medications were presented.

Zygmund et al. (2002) demonstrated the cognitive intervention which target on individual's attitudes and beliefs toward medication centered on the assumption that adherence is a coping behavior that is heavily determined by the personal construction of the meaning of medication and illness. Such as medication self management medication, and empowerment were often most effective to promote medication adherence, especially when they relate to the causes of noncompliance based on individual assessment, active patient involvement; collaboration and self-

regulation emerge from the dedicated schizophrenia literature as being related to more positive outcomes in terms of therapy and compliance. In addition, the interventions targeted specifically at problems of non-adherence were shown to be likely to be effective. Concrete problem solving or motivational techniques were common features of successful programmes. There is consistency in the data confirming a positive role for good therapeutic alliance in all approaches that proved successful in improving adherence to antipsychotic medications. Finally, there was modest evidence that the assertive community treatment and intensive case management models of community care were effective in promoting medication adherence. However, not only does the content of any adherence intervention approach seem to be important, but the time-course of outcome evaluation is also relevant. The need for 'booster therapy' seems to be important for maintaining some of the beneficial effects of adherence-improvement therapies.

Grey et al. (2002) proposed that the behavior interventions that aim to inform of the importance of taking medicine and link taking medicine with specific routine were more successful in promoting adherence than psychoeducational. The behavior interventions are assumed that adherence behaviors are acquired through learning and conditioning and can be modified through reinforcement, rewards, punishment, frequent repetition, and provision of cues, modeling, and the promotion of self-management. In such interventions, a detailed behavioral analysis of the problem was often conducted, and treatment procedures were targeted at specific components of the behavior. Common behavioral strategies include providing patients with detailed instructions and concrete problem-solving strategies such as skill building and practice activities, behavioral modeling and contracting, medication

packaging, reminders, self-monitoring tools, cues, reinforcements, and dosage modifications that helping persons to tailor their medication that fitted in their daily routine behaviors.

Byrne et al. (2003) suggested the compliance intervention that used cognitive behavior techniques were more effective to promoting medical compliance than other strategies in order to manage of nonadherence with antipsychotic medications in persons with schizophrenia.

In conclusion, there previous evidences supported that behavioral tailoring was effective in enhancing compliance and cognitive-behavioral techniques appear to be the most effective in enhancing compliance and preventing relapse (Grey, Wykes & Gournay, 2002; Zygmunt et al., 2002). Zygmund et al. (2002) proposed that the most successful program to enhance adherence in persons with schizophrenia should be given information on medication self management, and empowerment were often most effective to promote medication adherence,

2. Early warning sign intervention

The recognition of early warning sign refers to the efforts that are made to recognize the early warning signs of a psychosis at the earliest stage possible. American Psychiatric Association (2000) has expressed the opinion that early recognition and early intervention to prevent psychotic relapse should form part of all treatment program. According to the process of psychotic relapse in persons with schizophrenia in figure 4, monitoring the early warning signs in prodromal phase with the use of early intervention such as crisis supportive problem solving therapy and increasing antipsychotic medication doses when such symptoms were detected in order to promote the balance before the development of a full-blown episode has been

a growing emphasis on effective of preventing psychotic relapses (Meijel et al, 2004; Sutton, 2004). In addition, psychotic relapse can be prevented if optimal management or early intervention is provided when the earliest warning signs of relapse are detected (Meijel et al, 2004).

During the stable phase 25% to 50% of individual with schizophrenia continue to experience persistent psychotic symptoms despite adequate treatment with antipsychotic medication (Fowler, Garety, and Kuipers, 1995). Coping with schizophrenia is a major adjustment for both clients and their families. Understanding the illness, the need for continuing medication and follow-up, and the certainty of the prognosis or recovery are key issues. Client and families need help to cope with the emotional upheaval caused by schizophrenia. Teaching the client and family members to prevent relapse is an essential part of comprehensive plan of care. This include providing factual information about schizophrenia, identifying the early sign of relapse, and teaching health practices to promote physical and psychological well-being. Murphy and Moller (1993) have identified symptom trigger, or factors that increase the risk of relapse, in the areas of the client's health, the environment, and the client's attitudes or behaviors as follows: 1)health risk factors e.g. impaired cause and effect reasoning, impaired information processing, poor nutrition, lack of sleep, lack of exercise, fatigue, and intolerable side effects of medication; 2) environmental risk factors e.g. financial difficulties, housing difficulties, stressful changed in life events, poor occupational skills, inability to keep a job, lack of transportation/resources, poor social skills, social isolation, loneliness, and interpersonal difficulties; 3) behavior and emotional risk factors, e.g., lack of control, aggressive or violent behavior, mood swings, poor medication and symptom management, low self-concept, looks and acts

different, hopeless feeling and loss of motivation. Therefore, early identification of these risk factors has been found to reduce the frequency of relapse; when relapse cannot be prevented, early identification provides the foundation for interventions to manage the relapse.

The ‘stress-vulnerability model’ (Zubin and Spring, 1977) views the symptoms of schizophrenia as the result of environmental stressors acting on the vulnerable individual, and predicts that a reduction in stress or the acquisition of stress management skills should decrease the chance of psychotic relapse. The association of stressful life events (Hirsch et al., 1996) and the stressful home environments (Kuipers and Bebbington, 1988) with relapse among people with schizophrenia adds weight to this model and its predictions. There is evidence that even after the onset of early warning signs, stress management skills may be helpful in preventing psychotic relapse (McCandless-Glimcher et al., 1986; Hogarty et al., 1997).

Previous studies on schizophrenic symptoms have found that most patients had early symptoms within 2-4 weeks before relapse (Herz and Melville, 1980; Birchwood et al., 1989). These studies are congruent with Glimcher et al. (1986) and Herz (1984) showed that most schizophrenic patients can tell worsen of symptom before occur psychotic relapse. This is consistent with the findings of studies conducted by Hertz and Merville (1980) and Heinrichs et al. (1985), which demonstrated that 70 and 63 percent of patients were able to monitor their symptoms and to identify early symptom before the relapse of schizophrenia and the reported early signs were both psychotic and non-psychotic symptoms. It is also found that schizophrenic patients do not only recognize early symptom before the relapse but they also try to use various strategies to manage those symptoms (Baker, 1995;

Birchwood et al., 1989; Kennedy, 1994). It is congruent with Herz, Lamberti, and Mintz (2000) postulated that closing monitoring for prodromal symptoms and prompt early intervention such as crisis supportive problem solving therapy and increasing antipsychotic medication doses when such symptoms appear, were effective in reducing rates of psychotic relapse in schizophrenic outpatients. Meijel et al. (2004) who proposed that psychotic relapse can be prevented if optimal management or early intervention is provided when the earliest warning signs of relapse are detected.

The patients who achieve high scores of symptom recognition tend to use symptom self-management more than those achieving low scores (Kennedy, Schepp and O'Connor, 2000). In addition, improving an individual's ability to recognized early symptoms could have a positive impact on relapse prevention and employ a wide range of management methods regardless of degree of insight present. Therefore, improving an individual's ability to recognize symptoms associated with schizophrenia relapse could have a positive impact on relapse prevention (Kennedy, Schepp and O'Connor, 2000).

The patients who recognize non-psychotic symptoms express higher level of functioning than those recognizing psychotic symptoms (Hamera, 1990). These studies support that schizophrenic patients need to have the ability to recognize early signs before having severe psychotic symptoms to develop symptom self-management, thus symptom recognition is an essential factor for symptom self-management. The studies of symptom recognition and early warning signs to relapse in schizophrenic patients reviewed as below.

Jorgenson (1998) studied early signs of psychotic relapse in 60 schizophrenic outpatients with self-reporting method. It was found that 70 percents of participants could detect.

Birchwood et al. (1989) developed scale for the measurement of Early warning signs of psychotic relapse in persons with schizophrenia that called the Early Signs Scale (ESS) which is self-reporting. ESS can be classified the most common of EWS in four subscales: (1) anxiety/agiatation, (2) depression/withdrawal, (3) disinhibition, (4) incipient psychosis. The first two subscales occur primarily in the dyspohoria phase, and the last two subscales are visible when the process of relapse has progressed. This scale can predict psychotic relapse with an overall accuracy of 79%.

Hogarty et al. (1997) proposed “personal therapy” which an individualized and graded approach to stress management, particularly focusing on the identification and management of affective dysregulation preceeding psychotic relapse was associated with a significant overall effect in delay adverse events.

Birchwood, Spencer and McGovern (2000) tested a relapse prevention program that involves five stages: (1) engagement and education, (2) identification of the relapse signature, (3) development of a relapse drill that considers three areas for intervention: pathway to support, service interventions and personal coping strategies, (4) rehearsal and monitoring and (5) clarification of the relapse signature and relapse drill. This study decreased in relapse rate when compared with control group.

Herz, Lamberti and Mintz (2000) developed the Program for Relapse Prevention (PRP) that incorporating a number of interventions shown to be effective in preventing relapse and maintenance pharmacotherapy in schizophrenia. The PRP

included 5 components: 1) Education for patients and family members about relapse and recognizing prodromal symptoms and behaviors; 2) Active monitoring for prodromal symptoms by the treatment team, patient, family members and others in frequent contact with the patient; 3) When prodromal episodes were identified, clinical intervention within 24 to 48 hours (increase frequency of crisis problem-solving, supportive therapy visits and increased medication as needed); 4) Either one-hour weekly supportive group therapy emphasizing improving coping skills or 30-to 45-minute individual supportive therapy sessions if patients refused group therapy; and 5) 90-minute multifamily psychoeducation groups hat family members were encouraged to attend. The TAU consisted of biweekly individual supportive therapy and medication management. They found that outcome rate over 18 months were 17% for relapse in the PRP group, compared with 34% for relapse in the TAU group.

Tait, Birchwood and Trower (2004) studies coping strategies for psychotic symptoms at municipal mental hospitals by interviewing 50 patients. They found that patients who chose to avoid others had significantly lower self confidence scores than those utilizing a combination of strategies. The health care team played a part in improving the patients' confidence as well. In summary, most schizophrenic patients used the strategy of avoiding other people more often than other strategies. The patients' choice to avoid social interaction is related to emotional trauma during childhood, feelings of insecurity during adulthood, negative self assessment and belief in one's own abilities.

In conclusion, psychotic relapse is most often preceded by early warning signs. Clinical practice should integrate this knowledge by ongoing monitoring including self-report. Therefore, the early interventions are recommended mainly

composing of early warning signs, medication therapy and psychosocial intervention. This intervention can be provided by engagement psychoeducation about psychotic relapse and early warning signs which include identification of detected individual early warning signs (relapsed signature) by active monitoring once a week, and implement the coping strategies if the early warning signs occur.

3. Multi-Family psychoeducation

Many patients live with family members or have continuing contact with relatives. Caring for or maintaining a close relationship with a person with schizophrenia is associated with high levels of burden in relatives. Additionally, family stress can impinge on the patient's biological vulnerability, precipitating relapses and rehospitalization (Butzlaff and Hooley, 1998). A meta-analysis in family work studies by Mari and Streiner (1994) observed that these interventions were effective in decreasing hospital admissions and improving medication adherence. They also elucidated that family intervention reduced the frequency of relapse over a period of 6 months to 2 years. In addition, the National Institute for Clinical excellence (NICE) guidelines on schizophrenia highlight that Family Interventions reduce the likelihood of relapse in people with persistent symptoms, improved global adjustment scores and reduced the 'burden of care' upon families (National Institute for Clinical excellence [NICE], 2002).

Among the family intervention, there is substantial evidence that multifamily psychoeducation group is the most effectiveness on reducing high express emotion in family and the rate of psychotic relapses in persons with schizophrenia (Herz et al., 2000; McFarlane et al., 2003). Moreover, the multi-family psychoeducation yielded significantly lower psychotic relapse rates than did the single-family and it

may be cost effective than single family models in decrease high express emotion in family and risk of psychotic relapse (McFarlane et al., 2003). Moreover, multi-family groups also function to decrease the families' sense of isolation and certainly more cost effective. In conclusion, the multi-family psychoeducation is the most effective on decrease high expression in family and has significantly reduced psychotic relapse rates in persons with schizophrenia.

4. Social Skill Training

Social dysfunction, characterized by poor relationships with others, few friends, and lack of social reciprocity, is pervasive in schizophrenia and contributes to poor quality of life and worse outcome (Mueser and McGurk, 2004). Social skills training has been shown to improve independent living skills and to be able to generalized outside the setting where it is taught (Singh, 2005). The goal of social skills training (SST) is to improve the patient's social competence through the application of behavioral principles (Mueser and McGurk, 2004).

Schaub et al. (1998) conducted training schizophrenia patients to manage their symptoms by the Social and Independent Living Skills program (SILS) (Liberman, 1993). The SILS program consists of a series of different modules for teaching skill areas such as grooming and hygiene, job finding, leisure and recreation, medication management and symptom management in a sample of 57 schizophrenic patients. Psychopathology, global functioning and knowledge about schizophrenia were assessed. Overall, patients improved over the treatment period on most dimensions of psychopathology as well as knowledge about psychosis.

Seo, Ahn, Byun, and Kim (2007) evaluated the effect of social skill trainings on the social skills and self-esteem of 66 patients with chronic schizophrenia

by using the basis training and problem solving training models. The experimental group received 16 groups training sessions, and the control group received nursing care. The training program consisted of two parts: conversational skills and assertiveness skills. Data were collected at pretreatment and posttreatment. The conversational, interpersonal relationship, and assertiveness skills, and self-esteem of the experimental group showed significant improvement, whereas problem-solving skills did not improve. The results indicate that training in social skills is effective for improving the social skills and self-esteem in patients with chronic schizophrenia.

In conclusion, social skills training addresses social functioning by systematically teaching patients new interpersonal skills, such as starting conversations and expressing feelings, using social learning strategies such as modeling, role playing and homework (Bellack, Mueser, Gingerich, and Agresta, 2004).

5. Psychoeducational Training

Psychoeducational training aimed to providing schizophrenic patients with a reduced risk of relapse. There is no uniform psychoeducational procedure in the treatment of schizophrenic patients. According to a more broadly valid definition (Bernier, 1992) its components in general are provision of educational information and various methods based mainly on psychotherapy and behavioral interventions. Psychoeducational methods thus differ from mere (educational) provision of information to those concerned: although increase knowledge of the illness and its treatment is provided in this way, opening up new, more realistic aspect, the aim is also to teach alternative behavior through specific techniques based on the theory of the diathesis stress model (Zubin and Spring, 1977 cited in Hornung et al., 1996).

This theory being a common basis of all psychoeducational methods supposes a multiply conditioned lowering of the vulnerability threshold in schizophrenic patients.

The study of prevention of relapse in schizophrenia proposed long-term family psychoeducation approaches have demonstrated effectiveness for lowering the relapse rate over 1 to 2 years by reducing expressed emotion, enhancing medication compliance, and improving social functioning (Penn, Mueser, 1996; Huxley, Rendall, Sederer, 2000; Bustillo, Lauriello, Horan, Keith, 2001; Pharoah, Mari, Streiner, 2004). But there was still conflicting results form this approach. Effects achieved for psychoeducation directed solely at patients is also effective remain unclear (Pekkala, Merinder, 2004; Pitschel-Walz, Leucht, Bäumal, Kissling, Engel, 2001). In addition, psychoeducation has no effect on symptoms, functioning, and medication adherence (Pitschel-Walz, Leucht, Bäumal, Kissling, Engel, 2001; Zygmunt, Olfson, Boyer, Mechanic, 2002; Gharabawi, Lasser, Bossie, Zhu, Amador, 2006; Sevy, Nathanson, Visweswaraiah, Amador, 2004). Moreover, the psychoeducation do not require to accompany patients after the group has terminated and supported them in integrating the knowledge into their daily life (e.g. monitoring medication, stress, and early signs of relapse) (Lincoln, Wilhelm, Nestoriuc, 2007).

3. Nursing intervention for prevention of psychotic relapse

Persons with schizophrenia are *persons* who suffer from a complex, multifaceted, biologically based, environmentally sensitive disease that affects all areas of their life and functioning. Psychiatric nurses who work with schizophrenics are doubly challenged. The first challenge is to learn the spectrum of problems and combinations of problems that comprise the broad diagnosis category, schizophrenia.

The second challenge is to understand and work with the broad variation in human responses to live with this difficult, chronic illness (Wilson and Kneisl, 1992).

Nursing intervention for prevention of psychotic relapse focus on teaching self-management of symptoms and identifying symptoms indicative of relapse (Moller and Murphy, 2001). The key to managing with psychotic relapse is awareness of the onset of behaviors indicating relapse (Moller and Murphy, 2001). About 70% of patients and 90% of families are able to notice symptoms of illness recurrence. It has been evident for the past several decades that almost patients know when symptoms are intensifying (Bustillo, Buchanan, and Carpenter, 1995; Marder et al., 1991). These and other studies also identify a prodromal phase before relapse. A prodromal phase is the time between the onset of symptoms and the need for treatment.

With the majority of patients and families indicating a prodromal period longer than 1 week, it is essential that nurses collaborate with the patient, family, and the resident staff regarding the onset of relapse (Moller and Murphy, 2001). Identifying and managing symptoms help to decrease the number and severity of relapses. Teaching this to patients and families is a cost-effective intervention that can provide control over one's life and decrease the number or length of hospitalizations.

When assessing symptom stability of any chronic illness, it is important to evaluate whether daily symptoms are better, about the same, or worse than usual. Some patients with schizophrenia have psychotic symptoms daily yet are able to maintain adaptive responses and carry out activities of daily living. Relapse for these patients are usually indicated by an increase in symptom intensity.

The nurse conducting discharge teaching or working in an outpatient or residential setting must stress the lengthy recuperation process, with special emphasis on the sedative quality of the medication used to prevent relapse. When families and residential supervisors who do not understand the length of time needed for recuperation complain that the patient just want to sit around, smoke, and watch television, the nurse is encouraged to provide information. Teaching in the health promotion phase focuses on prevention of relapse and symptom management through engaging in a healthy lifestyle (Holmberg and Kane, 1999). Patient teaching simple methods that involve simple clear, and concrete including repetition and return demonstrations are the most helpful. One of the keys to preventing relapse includes identifying symptom triggers and strategies for managing them.

According to Moller and Murphy (2001) proposed the nursing intervention to prevent psychotic relapse which composed of the following:

1. Identify symptoms that signal relapse.
2. Identify symptom triggers.
3. Select symptom management techniques.
4. Identify coping strategies for symptom triggers.
5. Identify support system for future relapse.
6. Document action plan in writing and file with key support people.
7. Facilitate integration into family and community.

According to Meijel, Gaag, Kahn et. al (2003), they proposed the application of an intervention in nursing practice in relapse prevention in patients with schizophrenia. The intervention protocol instructs nurses in how to draw up, together with these patients and members of their social network, relapse prevention in

function of the individual situation and how they can then work with it. The relapse prevention plan contains a detailed description of early warning signs of psychotic changes in feelings, thoughts, and behavior of the patient that can be considered early warning signs of an impending psychosis on the basis of previous experience. The intervention protocol consists of four phases:

1. The preparatory phase composed of

1.1 The introduction of the Theme “Working with relapse prevention plan” with the patients and with members of social network

1.2 The description and analysis of the characteristics of the patients and the social network relevant to working effectively with relapse prevention plan

1.3 The performance of action create favorable conditions for working with a relapse prevention plan

1.4 The determination of a strategy for the preparation of working with a relapse prevention plan

2. The listing of early warning signs. This phase of the intervention, the nurse, the patient and members of the social network looked back at previous psychotic relapses. The assumption is that certain of those early signs would also occur in the future in the early phase of a psychosis. Their early recognition would make early intervention possible.

3. The monitoring of the early signs. In this phase, the nurse monitors possible early signs at least once a week with the patients and, if possible, with the members of the social network.

4. The preparation of an action plan. In this part of the intervention protocol, the nurse, the nurse, and the members of the social network together prepared an

extensive action plan with the aim of contributing to the recovery of the patient's equilibrium in periods of impending relapse. Attention is given to the use of medication, the prevention of stress, the enhancement of coping, and the use of protection from the environment.

Kuntasaibua (2001) proposed the nursing prevention on psychotic relapse in persons with schizophrenia for the psychiatric nurses and family members are as followed.

1. Providing the information on schizophrenia and care for the family member; especially in factors predisposing to psychotic relapse. The family members, therefore, can help these patients when the problem occurs.

2. Giving psychoeducation during the time of patient admission in hospital, it should be in discharge planning including learning social skill, occupation skill, problem solving skill. In addition, nurses give advice on factor predisposing to psychotic relapse and how to self-care during living in a community.

3. Providing the early prevention in the outpatient department and psychiatric community nursing to home visit the patients by making them to aware of the factors influencing to relapse and monitoring the early sign of psychotic relapse.

4. Setting the self-help group of schizophrenic patients which they can share experiences of illness and help them to monitor the early symptom of psychotic relapse. In addition, they can manage with problem and early symptom effectively.

The nursing intervention plan must be based on an understanding of the patient's disabilities, strengths, and preferences. Patient and family education about symptom management and relapse prevention is a critical element of the plan. Evaluation is

based on the patient's satisfaction with the level of functioning and on the ability to communicate improvement or impending relapse.

Nursing care for schizophrenic patient

Schizophrenia is a clinical syndrome or disease process that affects cognition, perception, emotion, behavior, and social functioning, but it affects each individual differently. The degree of impairment in both the acute or psychotic phase and the chronic or long-term phase varies greatly among individuals; so do the needs of each patient and the nursing interventions. The nurse must not make assumptions about the patient's abilities or limitations based solely on the medical diagnosis of schizophrenia. The Nursing process is composed of as followed.

1. Nursing assessment

According to Fontaine (1999), the nursing assessment of clients' responses to their illness and their functional status includes assessment of patients' reports, family or caregiver reports, and direct observation or performance. Patients who are not acutely ill are usually able to provide accurate information about their past history with mental illness and their current experiences. Identification of functional disabilities leads to the formulation of nursing diagnoses.

If patients are acutely ill, it may be difficult to obtain information directly from them. This is especially true for those who are experiencing delusions and hallucinations. Family members, roommates, friends, group home supervisors, or case managers may be the initial data source when there is an admission to the acute care setting.

2. Nursing diagnosis

According to Johnson and Pearson (2003), nursing diagnose that guide the nursing care of the patient with schizophrenia including the following:

2. 1 Disturbed Thought Processes related to biochemical imbalances, as evidenced by hypervigilance, distractibility, poor concentration, disordered thought sequencing, inappropriate responses, and thinking not based in reality

2.2 Disturbed Sensory Perception (auditory or visual) related to biochemical imbalances, as evidenced by auditory or visual hallucinations

2.3 Risk for Other-Directed or Self-Directed Violence related to delusional thoughts, hallucinatory commands, history of childhood abuse, or panic, as evidenced by overt aggressive acts, threatening stances, pacing, or suicidal ideation or plan

2.4 Social isolation related to alterations in mental status and an inability to engage in satisfying personal relationships, as evidenced by sad, flat affects; absence of supportive significant others: withdrawal; uncommunicativeness; and inability to meet expectations of others

2.5 Noncompliance with medication regimen related to health beliefs and lack of motivation, as evidenced by failure to adhere to medication schedule

2.6 Ineffective Coping related to disturbed thought processes as evidenced by inability to meet basic needs

2.7 Interrupted Family Processes related to shift in health status of a family member and situational crisis, as evidenced by changes in the family's goals, plans, and activities and changes in family patterns and rituals

2.8 Risk for Ineffective Family Management of Therapeutic Regimen related to knowledge deficit and complexity of patient's healthcare needs.

3. Nursing care plan

Nurses have many opportunities to assist people with schizophrenia in a variety of setting. These contacts may be long-term relationships or may be during crisis periods of time. It is important that patients identify their priority concerns if the plan of care is to be effective. Change is more likely to happen when patients are invested in the treatment process. Families, significant others, or caregivers should be actively involved in the plan of care and be taught to implement many of these interventions.

4. Nursing evaluation

According to Videbeck (2001), evaluation of the plan of care must be considered in the context of each patient and family. The patient's perception of the success of treatment also plays a part in evaluation. Even if all outcomes are achieved, the nurse must ask whether the patient is comfortable or satisfied with the quality of life.

In a global sense, evaluation of the treatment of schizophrenia is based on the following:

4.1 Have the patient's psychotic symptom disappeared? If not, can the client carry out his or her daily life despite the persistence of some psychotic symptoms?

4.2 Does the patient understand the prescribed medication regimen? Is he or she committed to adherence to the regimen?

4.3 Does the patient possess the necessary functional abilities for community living?

4.4 Are there adequate community resources to help the patient live successfully in the community?

4.5 Is there a sufficient after-care or crisis plan in place to deal with recurrence of symptoms or difficulties encountered in the community?

4.6 Are the patient and family adequately knowledgeable about schizophrenia?

4.7 Does the patient believe he or she has a satisfactory quality of life?

4. THE SYMPTOM SELF-MANAGEMENT CONCEPT

It is now widely accepted that patients with schizophrenia can become active participants in their own illness management, and programs have been developed to achieve this (Gingerich and Mueser, 2002; Hogary, 2002). This study is based on two major concepts concerning symptom self-management. The first one is the Vulnerability-Stress Model designed by Zubin and Spring (1977), which O'Connor (1994) later expanded and developed into a model for helping and rehabilitating patients with schizophrenia. The other one is the concept of self-management proposed by Kanfer (1980, 1991).

4. 1 Vulnerability-Stress Model

The vulnerability-stress model is a commonly used theoretical framework for the research into, and the treatment of, schizophrenia (Nuechterlein et al., 1992; Nuechterlein and Dawson, 1984; Nuechterlein et al., 1994; Zubin & Spring, 1977; Zubin, Steinhauer, & Condray, 1992). The vulnerability-stress model hypothesizes that schizophrenia is not a chronic disorder, but rather a permanent vulnerability to develop time limited episode of the disorder. Episodes of psychiatric disorder develop in vulnerable individuals who are in a state of "coping breakdown" (Zubin & Spring,

1977 cited in Kennedy, Schepp, & O'Connor, 2000). Major components of the vulnerability model are summarized in Table 2.

Table 2 Vulnerability-Stress Model of Schizophrenia

Concept	Definition
Vulnerability	The empirical probability that an individual will experience an episode of psychiatric disorder; an enduring trait.
Coping Effort	The energy exerted in situations not adequately dealt with by reflexes; orthogonal to vulnerability.
Competence	The skills and abilities needed to achieve success in significant role contexts of everyday life; orthogonal to vulnerability.
Coping Ability	The result of the initiative and skill that an organism brings to bear in formulating strategies to master life situation; orthogonal to vulnerability.
	Effect of Stressors
Episodes of Coping breakdown	Occur in all individuals when catastrophic situation arise and render routine coping strategies ineffectual; do not necessarily lead to episodes of psychiatric disorder.
Episodes of Psychiatric Disorder	Tend to develop in vulnerable individuals who are in a state of coping breakdown; time-limited states of illness.

(Zubin & Spring, 1977 cited in Kennedy, Schepp, & O'Connor, 2000)

This model shows the various factors play a role in the development of a psychotic relapse. This concept was expanded and developed to describe the causes or relapse, which were classified into four inter-related factors as followed (Yank et al., 1993; Nuechterlein et al., 1994):

1. Personal vulnerability factors including abnormal dopamine level, reduced competence in cognitive process and information analysis;

2. Personal protective factors including compliance with antipsychotic medication, coping skills, and self-efficacy beliefs;

3. Environmental protective factors including the family's ability in problem solving and supportive psychosocial interventions from health care professionals.

4. Environmental stressors including stressful life events, a social with highly stimulating environment, and the family with highly expressed emotional atmosphere such as hypercriticism or emotional over involvement.

These factors were used to explain the relapse of schizophrenia that patients who have emotional stress factors and personal vulnerability more than protective factors will lead to "intermediate internal states. Information processing overload, tonic autonomic hyperactivitation, and deficient processing of social stimuli characterize the condition of patient. These intermediate states can, when they exceed a certain threshold of gravity, lead to the development of "prodromal symptoms". They will present with symptoms indicating the disturbances, leading to impairments in social functioning and severe psychotic symptoms. They can be the precursors of a psychotic relapse. On the other hand, patients who have protective factors will reduce severity of symptoms and relapse. Examples of protective factors are social competence of the individual and pharmacological and psychosocial treatment, including community and family resource.

O'Connor (1994) presented the model which applied from the aforementioned concept with new research findings to develop an intervention model for schizophrenia management. This model described two determinants comprising stressors and moderators.

1. Stressors include neurological dysfunction, psychobiological stressors and environmental and interpersonal stressors.

1.1 Neurological dysfunction. A major disorder in schizophrenic patients is the impairment in prefrontal dopamine system (PDS), resulting in increased dopamine level and subsequently affecting control mechanism of the body. As a result, the patients are sensitive and cannot effectively respond to stressors, leading to psychotic symptoms.

1.2 Psychobiological stressors. The use of alcohol drinks or additive substances is the stressor of this kind as it increases psychotic symptoms. The patients will have perception changes, confusing cognition and will lose of interest in identifying the symptoms. Personal or social experience relating with schizophrenia can also be a stressors as stress may be induces from a person's self-appraisal.

1.3 Environmental and interpersonal stressors. These factors contribute to symptom exacerbation. This results of recent studies have shown that symptom exacerbation relates with over-stimulation from stressors; for instance, high expressed emotional in family member leads to increase occurrence of symptoms.

2. Moderators are the protective factors that help patients to perform their role with the highest efficiency. They protect patients from the impacts of stress and reduce the severity of symptoms. Moderators include symptom regulation skill, perceived social support and pharmacological therapy.

2.1 Symptom regulation skill. Previous studies have reported in the effect of monitoring and coping with symptom that the patient's ability in monitoring early sign of illness can lead to symptom management to reduce the severity and relapse. This ability would increase self-efficiency and improve patients' functioning to take care of themselves.

2.2 Perceived social support. This protective factor is essential in rehabilitating schizophrenic patients and for the reduction of psychotic symptoms. The perceived social support derived from patients' social network, self-help programs and peer support. In addition, social support would help the patient to enhance motivation to do various activities and allows the patients to express their feeling, receive help and support, monitor their symptoms, solve problems and be socially accepted.

2.3 Pharmacology therapy. The pharmacology therapy is a protective factor to reduce and control the symptoms. Pharmacological therapy increases patients' threshold to symptom exacerbation. The patients who have poor in compliance with treatment would have higher relapse than patient who have good compliance with treatment.

The Vulnerability-Stress model demonstrated that schizophrenic symptoms result from the vulnerability of internal stressors to external stimulators and the vulnerability of physical system to the response. Thus, stress from personal, interpersonal and environmental factors can be increased or decreased, depending on the moderators comprising symptom regulation skill, perceived social support and pharmacology therapy. It can be concluded that an intervention to control schizophrenic symptoms and to reduce relapse can be developed in two ways: reducing stressors and increasing moderators. Moreover, the social supports from family, friend, specialists or health care professionals are a significant contribution to increase moderators.

In this study, the vulnerability-stress model of schizophrenia provides a useful framework for understanding the psychopathological and psychotic relapse

processes that characterize this disorder. An elaboration of the vulnerability-stress model specifies relapse as a result of the interaction among four components: personal vulnerability factors, environmental stress, personal protectors, and environmental protectors. Numerous researches have been focused on moderators, especially on symptom self-management. These studies showed that some individuals with schizophrenia do identify signs of impeding relapse and develop coping strategies to manage their early symptoms (Changming, Sitthimongkol, Wattanapailin, 2003; Kennedy, Schepp, O'Connor, 2000; O'Connor, 1994). Therefore, helping schizophrenic patients to develop ability in managing symptom from the early of symptom occur is the essential components to reduce severity and prevent the complication of the disease. Management rather than cure is the therapeutic issue and important treatment goal. The goal is to limit the reappearance of psychotic symptom by intervening early in the decompensation process (Baker, 1995). Effective symptom self-management can decrease and control the severity of the symptom at the beginning and low level which it is necessary for prevention of severity of psychotic symptom causing for relapse. Moreover, it helps in maintaining the patients' functioning and living in a community.

4.2 Self-Management Model

Kanfer (1980; 1991) viewed self-management as the strategies that patients apply to control and prevent the exacerbation of their symptoms by using the appropriate methods with existing resources. Kanfer (1980; Kanfer and Geolick-Buy, 1991) introduces the concept of self-management to enhance understanding about mental process in 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 situation with self-management. At a result, that person will learn new behavior within the boundary of self-control. Self-management can also be used as the means by which the patient learns to effectively solve and to cope with their health problem with their own resources (Nakagawa-Kogan, 1996). The self-management framework rests on the following rationale:

1. many behaviors are only accessible by the client;

2. responsibility to monitor and alter covert behaviors rests with the client;

3. the client's motivation for change is critical in a self-management program;

4. a change program must include generalizable skills and coping strategies.

Kanfer's concept was derived from the social learning theory, which believes that most daily behaviors is a chain of reaction automatically built from the learning of past experience stored in long-term memory and subsequently modified into spontaneous responses. Therefore, a person can conduct daily activities with no need to make decision or 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. Therefore, self-management is a process deriving from past experience learning, social believe and physical environment that contribute to one's self-control.

The techniques of self-management can be understood within the context of the processes that occur in self-regulation. Kanfer's model of self-regulation (Kanfer and Gaelick, 1986) provides the basis for this symptom management program. The process of self-regulation under this model involves three phases: self-monitoring of

symptoms, self-evaluation of symptoms related to significant indices of relapse, and self-reinforcement of the use of self-control mechanism that are effective in regulating target symptoms. The three phases are incorporated throughout the program as the patients identify target symptoms and work toward finding coping strategies to manage these symptoms.

The processes were not only the processes to solve or cope with health problem but they also provided the appropriate way to live with unsolved problems (Lorig, 2003). Through these processes, self-management strategies could empower patients to have a greater sense of control over their illness and treatment, and also help alleviate of a patient's current problems, prevent further problems by resisting temptations, and achieve their goals, or prevent of erosion of a goal achievement (Creer, 2000; Kanfer, 1991; Nakagawa-Kogan, 1996). Thus, self-management simultaneously had a positive impact on the physiological and psychological health status (Clark et al., 1991). In addition, the studies of self-management training program showed improved health behaviors, changes in health status such as pain and psychotic symptom reduction, less health distress or worry about their condition, as well as a decrease in the number of health care utilizations (Bodenheimer, Lorig, and Holman, 2002; Kanungpairn et al., 2007; Lorig et al., 1999) .

In this study, symptom-self-management refers to the cognitive and behavioral efforts to minimize or reduce symptoms associated with relapse, including nonpsychotic and stress-related symptoms by using the strategy that is applied among schizophrenic patients in order to improvement knowledge about psychotic relapse, enhance compliance with antipsychotic medication and symptom self-management, identifying stress and personal warning signs of a psychotic relapse and coping with

stress and warning sign or early symptoms through the process that includes self-monitoring, self-evaluation, and self-reinforcement.

4.2.1 Self-management and Schizophrenia

The usefulness of self-management methods with schizophrenia are (Kennedy, 1994):

1.1 individuals with schizophrenia are capable of recognizing symptoms that may lead to relapse;

1.2 individuals with schizophrenia attempt to manage the symptoms of their disorder.

According to self-management model, behavior is influenced by three sources of control: the immediate environment, the personal biological system, and personal cognitive cues (Kanfer and Gaelick, 1986). These three variables interact to ultimately shape behavior. The relative importance of each this varies across times. The effects of temporal fluctuations in biological and environmental variables can be minimized with self-regulation, thus allowing an individual to pursue self-identified goals with greater freedom (Kanfer and Gaelick, 1986). These three sources of control provide potential sites of self-management intervention.

Environment

Environmental influences perceived as stressful by an individual with schizophrenia may trigger or contribute to increase symptoms (Kenedy, 1994). Environmental stressor include the patient's family life (Liberman and Corrigan, 1993), the role of expressed emotion (EE) in family (Kavanagh, 1992; Butzlaff and Hooley, 1998), the patient's stressful life events, and variation in intensity of symptoms (Norman and Malla, 1995). These problems are often compounded by poor

social skills and inadequate social support system (Kenedy, 1994). Effective psychosocial interventions may increase an individual's ability to cope with environmental stress factors (Liberman and Corrigan, 1993; Wallace, 1998; Lamberti, 2001; Kopelowicz, Zarate, Smith, Mintz, and Liberman, 2003).

Biology

Biology influenced to schizophrenia because schizophrenia may be caused by either a relative excess of dopamine in the brain or an overexcitation of post-synaptic dopamine receptor (Carptenter et al., 1999), but the relationship between dopamine and psychotic symptoms is nonspecific and does not explain negative symptoms. The recent development of "atypical" antipsychotics has spurred research into serotonin, with evidence suggesting a correlation between negative symptoms improvement and serotonin receptor antagonism, as well as feedback relationships between serotonergic and dopaminergic neurons in the frontal lobe (lamberti, 2001). Glutamate and other excitatory amino acids like aspartate have attracted the most recent attention as possible offenders in schizophrenia, with particular focus on NMDA receptors in temporal and limbic regions of the brain (Olney and Farber, 1995; Mohn, Gainetdinov, Cron, Koller, 1999). Negative symptoms have been specifically linked with "hypofrontality" – lower blood flow or glucose metabolism in frontal lobe structures (Andreasen, Rezai, Alliger et al., 1992). Neuropsychological deficits are consistent with prefrontal lobe dysfunction, especially the dorsolateral prefrontal cortex, an area of the brain intimately with abstract thinking and mental planning (Weickert and Kleinman, 1998).

Stress appears to be a crucial link between the complex biological and psychological factors contributing to relapse in schizophrenia (Lamberti, 2001). Stress

adds to the pathological process of schizophrenia initiated by the interaction of predisposing and intermediating factors (O'Connor, 1994). The predisposition to develop schizophrenia is created by changes within a person's physical, psychological, spiritual, or cultural environments in conjunction with the presences of stressors (Warren, 2003). Self-management interventions have the potential to moderate the influence of these various processes. Individuals can be taught to recognize and adapt to biological deficits, including neuroendocrine changes. Numerous well-controlled studies established that neuroleptic medications have antipsychotic effects in people diagnosed with schizophrenia (Meltzer, 1992; Marder, Amers, Wirshing and VanPutten, 1993; Usher, 2000; Marder, and Wirshing, 2003).

Self

According to Kanfer and Gaelick (1986) and Tarell (1989) the third influence on behavior is the self, in the context of schizophrenia; self is the person's internal experience of the illness. Individuals with schizophrenia have a great vulnerability to biological, psychological, and social stressors that can lead to relapse (Herz and Marder, 2002). The personal costs associated with relapse including impaired role functioning, disrupted interpersonal relationships, and demoralization (Lamberti, 2001). Hartfield (1989) identified four internal sources of stress for personal with schizophrenia: altered perceptions, cognitive confusion, attentional deficit, and impaired identity. In addition, patients demonstrated wisdom and creativity in efforts to cope with these internal stressors. Therefore, it is important to (a) avoid or decrease social stressors that may precipitate relapse and (b) utilize therapeutic interventions with the patient to increase coping skills and/or strengthen

the support system so that patient's vulnerability to stress will be decreased (Norman, et al., 2002).

Another subjective experience of schizophrenia is "insight", or the ability to understand that one suffers from a mental illness (Tarell, 1989). The ability to recognize symptoms in schizophrenia associated with relapse dependent on the presence of insight, a term commonly used in psychiatry to describe awareness of one's disorder. Poor insight has long been identified as a prevalent feature of schizophrenia and is often associated with greater frequency and severity of relapse (Kennedy, Scepp and O'Connor, 2000). It has been suggested that insight is crucial in symptom management and that the degree of insight required to use self-management techniques is uncommon among individuals with schizophrenia because it will be conducive to behavioral adaptation, which it may intensify subjective distress (Kenedy et al., 2000). Therefore, the problem of insight is an important consideration in the use of self-management techniques.

4.2.2 Theoretical Basis of symptom self-management

The symptom self-management philosophy is based on the belief that each person is an intelligent human being and has the right to make his or her own choices. There is a technique that equips individuals with the skills to become self-directed changed agents (Kanfer and Gaelick, 1991). The term 'self-management' makes reference to the activities people undertake to create order, discipline and control in their lives (Kanfer and Gaelick, 1991). Self-management has been reported as enabling people to minimize pain, share in decision making about treatment, gain a sense of control over their lives (Lorig and Holman, 1993), reduce the frequency of visits to medical doctors and enjoy a better quality of life (Lorig et al., 1998). The

self-management methods help the clients to acquire new behaviors. They need to apply self-control process to modify their behavior by using cognitive process and careful planning. Through active engagement with the use of self-management, people participate in self-regulatory behaviors that foster responsibility and self-control, which encourage a commitment to change. Furthermore, the challenge is teaching patients to manage their own minds and bodies, thereby achieving personal control over the cognitive, affective and psychological process. There are two theoretical frameworks underpinning the symptom self-management concept, including self-control, and self-regulation (Creer, 2000; Nakagawa-Kogan, 1996).

Self-Control

Self-control is the concept postulating about the personal control – a locus of control (LOC) – there is either internal or external (Rotter, 1966). Further, LOC is described as a general principal that a person's attempt to control their personal environment is influenced by the internal or external factors. More specifically, it may be described as the extent to which an individual believes that events within his/her personal environment are under his/her own control or are controlled by external circumstances such as lick, fate or powerful others (Rotter, 1966). Kanfer and Gaelick-Buys (1991) use the term self-control for a person's actions in a specific situation, rather than a personal trait. Moreover, they describe self-control as the probability behavior of the response to situation.

Self-Regulation

Self-regulation is the concept of the mind-body interface (Nakagawa-Kogan, 1996). The term defines as self-generated processes that are planned and cyclically adapted in an attempt to control personal, behavioral, and environmental

factors (Clark et al., 1991; Zimmerman, 2000). Self-regulation is also defined by Maes and Karoly (2005) as a goal-guidance process aiming at the attainment and maintenance of personal goals. The self-regulation process requires self-observation, self-judgment, and self-reaction. The principle of self-regulation is related to the notion that through self-regulatory processes individuals learn strategies to manage their disease (Clark and Zimmerman, 1990; Clark, Gong, and Kaciroti, 2001).

4.3.3 Process of Self-management

According to Kanfer (1991) process significant in self-management training includes three processes, namely self-monitoring, self-evaluation, and self-reinforcement.

4.3.3.1 Self-monitoring or self-observation

Self-monitoring refers to deliberate attention to the behaviour used to attain goal process, and it motivates improvement in learning (Creer, 2000). Self-monitoring may help patients recognize symptoms and common triggers. This stage is essentially described as deliberately and carefully attending to one owns behavior. Past experience will motivate the person to change the behavior that needs to be changed, to anticipate the outcomes of change and to compare the behavior with standard criteria. Self-monitoring is usually initiated by asking a patient to record specific aspects of behavior. This involves a period during which a patient must define the behavior or problem to be altered or measured, count frequencies, and note the circumstances of occurrence. In addition, this involves information collection, which included self-recording data (Creer, 2000). A person with inappropriate self-monitoring may have unrealistic standard and may not achieve self-control.

4.3.2 Self-evaluation

Self-evaluation refers to an obtained information from self-monitoring will be compared with standard criteria set by the person or the society in order to evaluate whether the behaviors should be maintained or discontinued. Patient can establish realistic expectations about their performance and assess whether they need more training. They also should acquire realistic expectations about the limitation of self-management in helping to control their condition.

4.3.3 Self-Reinforcement

The utilization of self-control mechanism to regulate a given behaviors (Kanfer and Gaelick-Buys, 1991). After comparing his/her behavior with the standard criteria, the person will have both positive and negative reactions, which affect the expectation of outcomes and subsequent behavior. Positive reaction will encourage that 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 behavior. The motivation may be enhanced with support from other people such as family, friends or healthcare professionals. Self-reinforcement is evident whenever individuals set criteria of performance to achieve and proceed to the self-reward of attainment, exceeding their own expectation (Yates, 1986). Self-rewards are under patients control, and demand motivation and commitment of individuals to monitor signs, sharpen perception, and produce change.

4.4. Application of Self-management

Self-management programs, for chronic illness, were designed and showed effectiveness in varying degree in the control of many recurrent symptoms

(Burckhardt, Mannerkorpi, Hedenberg and Bjelle, 1994; Dilio and Henrry, 1995; Kalichman, Sikkema, Kelly, and Bulto, 1995; Keating and Ostby, 1996; Payne et al., 1995; Zimmerman, Brown, and Bowman, 1996). Blair (1995) developed self-management programs in home care residents. It revealed that self-management strategies and processes encouraged patient to make more choice, take more control, and become more responsible for their live. It produces a positive effect on patients' behavior.

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 revises patients' experience and encourages them to be responsible for their behaviors in managing the environment or in making plan (Changming, 2003). 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-inducing or hostile environment or learn to cope with it by accepting that it is inevitable. Health care professionals 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 in 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 in improving self-management (Nakagawa-Kogan and Betrus, 1984).

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 to maintain desire behavior. Therefore, for the promotion symptom self-management in patients with schizophrenia, psychiatric nurses and other staff in the health care team need to understand basic 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.

In conclusion, the self-management program, which provided patients' involvement in their own health management and families or health care providers as the supporter, has been associated with greater satisfaction with care, better compliance with the treatment program, better outcomes and more effective use of heath services.

4.5 The review of the symptom self-management of patients with schizophrenia

Symptom management is a major clinical problem in chronic mental illness. Several researchers have conducted studies on symptom management in order to develop a guideline for effective symptom management strategies. Various terms in attempt to describe symptoms management in patients with schizophrenia; coping (Middelboe and Mortensen, 1997; Norman, Malla, and McLean, 2003; Sonpaveerawng (2001;), self-control (Finkelman, 2000; Martyn, 2005), self-regulation (Eckman et al., 1992), and symptom management (Changming et al., 2003; Dyck, Short, Hendryx, Norell, and Myers, 2000); Hamera et al., 1992; Kanungpairn et al., 2007; Lee and Tsai, 2003; Murphy and Moller, 1993; Kenedy et al., 2000; Sitthimongkl et al., 2000; Sitthimongkol et al., 2007; Stenberg, Jääskelä inen, and Röyks, 1998).

The definition of symptom self-management was various as following; Symptom self-management means a patient's effort in making decision to apply various strategies to eliminate, relieve or manage early symptom of illness before worsens to the extent that hospitalization is needed and the management only focuses on the symptom occurrence situation (Murphy and Moller, 1993).

Symptom management is consistently defined as a systemic process consisting of symptom experience, symptom management strategies and symptom outcomes, that is modified by individual outcomes and the influences of the nursing, person, health/illness or environment domains (University of California at San Francisco, UCSF, 1994; Larson et al., 1994; Dodd et al., 2001).

Teel et al. (1996) defined symptom management as behavior resulting from symptom interpretation. Symptom management depends on one's feeling toward symptom evaluation. If a person is familiar with the symptom or has positive attitude about successful management of symptom, thus this strategy would be used. On the other hand, if a person is not familiar with the symptom and has negative attitude toward a strategy of symptom management, the strategy would not be used.

Pollack (1996) defined as an important process of self-care that needs to be taken into personal responsibility with the objective to control or reduce the impact of illness.

Haworth and Dluhy (2001) described symptom management is a process requiring a person's understanding of symptom experience and symptom interpretation.

Kennedy, Schepp and O'Connor (2000) defined symptom self-management as schizophrenic patients' perception toward early symptoms before the relapse of schizophrenia that leads to symptom management.

Kanfer (1981) and Kanfer and Guelick (1991) explained self-management as a process requiring basic skill for monitoring one's behavioral changes carefully to use as information for self-evaluation and making decision about subsequent behavior. Thus, symptom recognition is an essential factor leading schizophrenic patients' to make decision about symptom self-management.

According to the Vulnerability-Stress model and the concept of self-management, the symptom management is evident that patients with schizophrenia need an initial skill to develop symptom self-management. That initial skill is cautious self-monitoring of behavioral changes developed by using information from past

experience for self-evaluation and decision making about symptom management and by receiving support from other people such as family friends and health care professional (Changming, 2003).

In foreign countries, Briere and Strauss (1983) conducted a study with 20 psychiatric patients by interview with a semi-structure questionnaire. They found that 17 patients explained their attempts to control symptoms in three ways: 1) self-instruction such as talking to one's self; 2) reduced involvement in activity such as using relaxation technique with breathing exercise, taking a walk, or having a shower; and 3) increased involvement in activity such as making one's self busy with activities or work. Some patients did not explain the attempt to control symptom on account of their lack of capability for self-observation and self-assessment, as they refused having the symptom and lacked motivation for self-control.

Cohen and Berk (1985) examined coping patterns in 101 schizophrenic receiving care at an outpatient clinic of a mental health care center, using open-ended and closed questionnaire in the interview. They found that the patients used several coping techniques that could be divided into nine groups: 1) fighting back by not thinking; 2) time out, 3) isolated diversion such as watching television, talking with friends and talking with member of family; 4) Social withdrawal; 5) Prayer; 6) Medical treatment; 7) Drug use; 8) Do nothing with the feeling of helplessness, and 9) Do nothing with the feeling of acceptance. The most frequency used technique was fighting back, followed by doing nothing with the feeling of acceptance. The least frequently used coping technique was using alcoholic drinks or drugs and do nothing with the feeling of helplessness. The patients frequently used fighting back method in coping with depression, schizophrenic symptoms and relationship problems. Time out

and isolated diversion were mostly used in the management of anxiety. Medical treatment was used in coping with schizophrenic symptoms and anxiety most frequently. The patients did not report the feeling of helplessness in coping with schizophrenic symptoms and relationship problem. They expressed the feeling of acceptance in coping with depression and relationship problems. Praying was specifically used in coping with schizophrenic symptoms. The patterns of coping vary according to personal characteristics and the patients' social and mental functions. For example, employed and unemployed patients expressed significantly differences in patterns of coping at statistical level ($p < .05$); patients who lived alone and lived with others demonstrated different coping techniques at a statistically significant level ($p < .01$); and male and female patients also used different coping technique at a statistically significant level ($p < .01$).

Glimcher et al. (1986) studied using of symptom to monitor and regulation their illness in 62 schizophrenic outpatients at community mental health centers with open-ended interviews. They found that 98 percents of participants could tell when they were getting worse and the symptoms that participants experienced most frequently were non-psychotic: nervousness or tenseness trouble sleeping, greater than usual fatigue, and depression. 82 percents of participants said that they altered their behaviors to regulate their illness consisted of behaviors related to self-treatment such as self-medication, engaging in some diversionary activity or attempting to ignore the symptoms; seeking assistance such as seeking assistance from a mental health professional or mental health agency; and self-treatment and seeking assistance.

Murphy and Moller (1993) conducted a study on symptom management in 95 patients with psychiatric disorders, consisting of 76 patients with schizophrenia, 7 patients with emotional disorders, and 12 patients with depression. To develop an instrument for symptom management, the patients were interviewed with a questionnaire. They found that the patients used symptom management techniques that are similar to of the result of the study conducted by Cohen and Berk (1985). The techniques could be classified into six domains: distraction, fighting back, help-seeking, attempts to feel better, isolation, and escape behavior. It was found that distraction, fighting back, help-seeking, and attempts to feel better could lead to symptom stability and good health status. Isolation leads to symptom stability but not to good health status whereas escape behavior leads to symptom changes or more severe disorder.

Middelboe and Mortensen (1997) investigated the techniques of coping with symptoms in 98 long-term mentally ill patients in Copenhagen, using semi-structure interview. It was found that with the patients used several techniques to cope with the symptoms. These techniques could be categorized into 5 groups, as follows: 1) Cognitive control, such as distraction, adaptation to problems, and emotional suppression by ignoring the voice from auditory hallucination, 2) Behavioral control, such as distraction by watching television, listening to music, signing rhythmically, reading, having exercises or changing of posture, concentration on something, working hard, 3) Social changes, such as having more or less social interaction, 4) Physical changes, such as using drugs, additive substances or alcohol, and 5) Symptomatic behavior, such as using psychotic behavior. Therefore, the increase in interpersonal interaction, cognitive control, and medical treatment are significant and effective

coping techniques, as shown in other studies. At present, medical treatment, social changes and behavioral changes are the most commonly used as the first choices of treatment among all coping techniques.

Hamera et al. (1991) investigated symptom self management and functioning of 51 schizophrenic patients receiving medical service at community health centers in Merraim and Kansas by reviewing with an open-ended questionnaire. They found that 59 of the respondents used more than one technique to control symptom at the initial phase of the illness. The most frequently used techniques were engaging one's self with something else or paying attention to general activities. Other techniques included cognitive control, such as talking to one's self, relaxation, or isolation. Only 20 percent of the respondents conducted self-defeating action, such as using addictive substances, drinking alcohol, or acting out.

Buccheri et al. (1996) studied symptom management of auditory hallucination in 12 schizophrenic patients with follow up during 1-year after received symptom management program. They found that at 1-year follow up the patients learned using less strategy to mange auditory hallucinations and more effect to themselves. The most frequent strategies were talking with someone, watching TV, listening to cassette with head-phone, followed were self-monitoring, listening to relaxation tape. The least frequently strategies were humming and yell back at the voice.

Kenedy et al (2000) conducted a study on symptom self management and illness reoccurrence in 60 hospitalized schizophrenic patients. The results revealed techniques of symptom management were categorized into three groups, as proposed by Murphy and Moller (1993). They found that 83 percent of the

participants tried to live with the symptoms and 60 percent were not able to manage the symptoms. The most frequently used techniques were positive thinking, followed by medical treatment and trying to live with the symptoms. It was also found that the score of schizophrenic symptom recognition could significantly predict symptom self management at a statistical level (p=.02). Patients with high score of symptom recognition tended to have more techniques of symptom self management than patients with lower score.

Buccheri et al. (2002) conducted study on the behavirol management strategies for auditory hallucinations. Their study was a quasi-experiemental study involvig 72 participants. The results showed that characteristics of auditory hallucinations decreased including frequency, self-control, clarity, tone, distractibility and distress, only one characteristic, loundness, did not change significantly. Post-intervention scores on anxiety and depression were significantly lower than pre-intervention scores. They had continued a long-term follow up on the use of behavioral management strategies in 2004. They found that frequency, self-control, clarity and distractibility significantly decreased.

In Thailand, Changming (2003) investigated the relationship of symptom recognition and perceived social support with symptom self-management in schizophrenic patients. The sample was composed of 100 schizophrenic patients who receiving treatment at Outpatient Department. The results showed that most patients chose withdrawal techniques e.g. staying at home, sleeping, and trying to live with the symptom, followed by responding to the symptom with positive attitude, avoiding the situation inducing symptom, ignoring disturbing thoughts, and distraction such as watching television, listening to the music, praying, or reading. They also tried to

think in a more positive way, seeking help such as talking to the family or healthcare professionals. Some patients avoided the symptoms by using addictive substances, or drinking alcohol. The average score of perceived effectiveness of symptom self-management in responding to the symptom was the highest, followed by isolation, distraction, seeing help, trying to feel better, and avoiding (mean= 1.33, 1.30, 1.24, 1.18, 1.07, and .379, respectively). It is also found that symptom recognition can predict symptom self-management by 14.7 percent at a statistically significant level ($p<0.05$), and symptom recognition in combination with perceived social support can co-predict symptom self-management by 29.4 percent at a statistically significant level ($p<0.05$).

Sitthimongkol et al. (2000) studied status prior to hospital discharge at Somdet Chaophraya Hospital in 140 psychiatric patients and found that the patients demonstrated health promotion behavior and symptom management at good level. The first three methods of symptom management that were used mostly were 1) distraction, 2) avoiding isolation, and 3) help-seeking. In addition, perceived social support and reception of advice regarding health care from nurses can co-predict symptom management by 21 percent ($p<0.05$).

Sonpaveerawong (2001) studied the level of stress and the coping strategies in 100 schizophrenic outpatients at Somdet Chaopraya Hospital by interview. It was found that the participants used eight strategies to cope with their stress in daily life. The most used coping strategies were seeking social support, doing direct action, having a positive reappraisal, trying to realize “Tamjai” or “Phong”, doing palliative activities, seeking spiritual support, avoidance and performing maladaptive active.

Kanungpairn (2005) conducted the study on effects of a symptom management program on chareactristics and severity of auditory hallucinations in schizophrenic patients. Eighteen schizophrenic patients who were attend the outpatient clinic at psychiatric hospital. The experimental group attended the symptom management program once a week for 10 weeks, while control group received standard care and usual hospital services. The results revealed that after participation in the program the experimental group had the scores of characteristics and severity of symptoms statistically significantly lower than prior to participation in the program ($p<.001$). The scores of characteristics and severity of symptoms was statistically significantly lower than for the control group ($p<.001$).

The above review of previous research papers has shown that patients with schizophrenia patients are able to manage symptom by themselves using various strategies to control the symptoms. Techniques to manage or control may use self-control, pharmarcological therapy, seeking help, positive thinking, fighting back or accepting the symptoms. Symptom management occurs in difference techniques with schizophrenic patients regarding with the relating factors. In addition, symptom recognition and social support from family, friends and health care professions, are protective factors for symptom self-management of schizophrenic patients.

Table 3 Summary of the experimental studies of symptom management program with schizophrenic patients

Author	Design	Sample	Interventions	Outcome measures	Results
Eckman et al., 1992	Quasi-experiment	41 male veterans with Schizophrenia Most participants had had 10 year or more years of treatment for Schizophrenia	**Treatment:** After received fluphenazine or placebo, the participants receiving skills training. **Control:** group therapy	-Brief Psychiatric Rating Scale (BPRS) and the Schedule for Assessment of Negative Symptoms -Role –playing test *Time measured:* T0=pretest T1=posttest T2= 6 months T3=12months	The patients who received skills training made significant gains in each of the areas taught, while those participating in group therapy did not. The skills learned during training were retained without significant erosion over a 1-year follow-up period.
Stenberg et al., 1998	Quasi-experiment	29 schizophrenic patients in control and 18 in control group	**Treatment:** Symptom self-management skill training, an educational **Control:** Conventional nursing care	1) Personal assessment 2) GAF Scale to evaluate the patients' global functioning and quality of life. *Time measured:* T0=pretest T1=post-test T2=3 month T3=2, 1.5, or 1yr.	The experiment did not significantly differ in quality of life or functioning from the control.
Anzai et al., 2002	RCT	32 schizophrenic patients	**Treatment:** 18 one-hour session of Community Re-entry**Control:** a conventional occupational rehabilitation program	-REHAB *Time measured:* T0=pretest T1=post-test T2=1year	The patients who received training in the module demonstrated a significant increase in knowledge and skills.

Table 3 Summary of the experimental studies of symptom management program with schizophrenic patients (conti.)

Author	Design	Sample	Interventions	Outcome measures	Results
Shon and Park, 2002	Quasi-experiment	18 Outpatient with schizophrenia	**Treatment:** medication and symptom management education program **Control:** Conventional nursing care	1) The medication Use scale 2) The relapse symptom management 3) The scale for family support in medication compliance. *Time measured:* T0=pretest T1=post-test	The participants who attended this educational program reported significantly more improvement in self-efficacy (*p=0.014)* and medication compliance (*p=0.005),* and significantly less relapse warning symptom scores (*p=0.000)* than the control
Tait et al., 2002	Pilot study	20 out-patients with schizophrenia spectrum disorder	**Treatment:** a cognitive intervention **Control:** conventional nursing care	-ESM *Time measured:* T0=pretest T1= follow up every two week, on average, for 10 months (range 5-13 months).	Continuously early signs monitoring could be an effective tool in predicting relapse in schizophrenia.
Kopelo-wic et al., 2003	Quasi-experiment	72 schizophrenia and 20 schizoaffective	**Treatment:** 3 month of skill training (ST) **Control:** customary outpatient care	PANSS, ILSS, ROMI, MMM, SMM *Time measured:* T0=pretest T1=3month posttest	There was a significant advantage for the ST group over the CC group on several symptom measures, skill acquisition and generalization, level of functioning, and rates of rehospitalization.

Table 3 Summary of the experimental studies of symptom management program with schizophrenic patients (conti.)

Author	Design	Sample	Interventions	Outcome measures	Results
Kanung-pairn et al., 2007	Quasi-experiment	18 Thai outpatients diagnosed with schizophrenia	**Treatment:** 10-session education in the illness and auditoryhallucinations, changing dysfunctional beliefs, teaching effective coping skills to reduce the symptoms, and developing a sense of self-control. **Control:** conventional nursing care	-CSAH scale *Time measured:* T0=pretest T1=10 week posttest	The experimental group experienced significantly decreased overall scores of the characteristic and severity of auditory hallucination.
Sitthi-mongkol et al., 2007	Quasi-experiment Pilot study	9 outpatient and 9 family members	**Treatment:** 2-hour intensive sessions held each week for six week and then 2-hour monthly to practice the coping strategies, offer support to each other, and discuss how to manage the patients'	-GAF - SFS *Time measured:* A one-group T0=pretest T1=post-test T2=3month T3=6month	After the 6-month follow-up session, the score for patients' GAF, interpersonal behaviors were significant increase ($p<0.05$). The level of independence performance at the 3-month follow-up session was significant higher than that of the 6-month follow-up session ($p<0.05$). After the 6-month follow-up session, family attitudes were significantly improved ($p<0.05$).

Note: BPRS=Brief Psychiatric Rating Scale; CSAH=Characteristic and Severity of Auditory Hallucination Scale; ESM=Early signs monitoring questionnaire; GAF=Global Assessment of Functioning; ILSS=Independent Living Skills Survey; MMM=Medication Management Module; PANSS=The Positive and Negative Syndrome Scale; RCT=Randomized Controlled Trial; ROMI=Rating of Medication Influences Scale; SFS=The Social functioning Scale; SMM=Symptom Management Module; T=Time measured

In conclusion from the literature review showed the relapse prevention has a significant succeed with the psychoeducation intervention. However, psychoeducation does not increase the personal competency of schizophrenic patients and some symptoms do not solve and still have the persistent symptoms which can relapse occur. There are many studies of symptom self-management program among western schizophrenic patients were effectively conducted, but there still have the conflicting result in symptom self management, thus this study want to prove the effective of symptom self-management in Thai patients with chronic schizophrenia. There are only two evidence supports for Thai people in managing with auditory hallucination for outpatients (Kanungpairn et al., 2007) and increasing functioning of adult patients (Sitthimongkol et al., 2007). However, the studies of Kanungpairn et al. (2007) aimed specific to cope with schizophrenic patients who have experienced only hallucination which chronic schizophrenia have varied of persistent psychotic symptoms and the study of Sitthimongkol et al. (2007) aimed to improve social functioning not to prevent relapse. In addition both studies had small sample size and using quasi-experimental studies. In the past researchers who have demonstrated that monitoring for early symptoms of relapse successfully reduced hospitalization and relapse rates while making it possible to use less medication, thereby reducing medication side effect (Murphy and Moller, 1993 ; Kenedy et al, 2000). For relapse prevention, there is always a need to manage and control a patient’s behavior. To manage relapse,

patients should have specific coping strategies, which are developed from past personal accomplishments, vicarious experienced, emotional arousal, and verbal persuasion. For this reason, developing symptom self-management programs for Thai schizophrenic patients would be challenging. However, from the intensive literature reviewed, there was likelihood of effective of symptom self-management programs on a variety of outcome, both on Western and Thai schizophrenic patients. Therefore, the experimental design of symptom self-management programs among patients with chronic Thai schizophrenia should be developed to examine the effectiveness of intervention and explore how patients manage their psychotic symptoms.

CHAPTER III

RESEARCH METHODOLOGY

In this chapter, the methodological aspects, including the research design, population and sampling, the setting, instruments, data collection, threats to internal validity, protection of the rights of human participants, and data analysis were discussed.

RESEARCH DESIGN

This study is experimental study using a pretest-posttest control group design (Shadish, Cook, Campbel, 2002). In this design, participants were randomly assigned (R) to the experimental or the control group. The Symptom Self-management Program (X) was given only to those in the experimental group, and the posttests (O_2) are those measurements of the dependent variables that were made after the experiment intervention was introduced. At the pretest phase, the sample was gathered baseline data or pretest assessment about psychotic symptom that occurs. For participants from outpatients department, the pretest assessment was performed right after the participants agreed to participate in this study. The posttest evaluation about psychotic relapse was conducted ten weeks after the pretest assessment. This design diagrammed as following:

R	O_{11}	X	O_{12}	Experimental group
R	O_{21}		O_{22}	Control group

R = random assignment in order to place samples into either experimental or control group

X = The Symptom Self-Management Program

O_{11} = the psychotic symptoms scores of experimental group at the day of recruitment to the study

O_{12} = the psychotic symptoms scores of experimental group at 10^{th} week after recruitment

O_{21} = the psychotic symptoms scores of control group at the day of the recruitment

O_{22} = the psychotic symptoms scores of control group at 10^{th} week after the recruitment

POPULATION AND SAMPLE

Population of the study

The target population in this study was patients with chronic schizophrenia who received care at out-patient clinic.

Samples of the study

1. Sample selected

The simple random sampling was used to recruit qualified participants in the studie. The following criteria used to select the participants including.

1. The patients with chronic schizophrenic from the outpatient clinic at the Galya Rajanagarindra Institute. Theses patients were reviewed to identify the participants who met the following inclusion criteria.

1.1 Adults' Thai male or female age between 17 and 60 of patients with chronic schizophrenia who had a history of 2 acute episodes in the past 5 years and being clinically stable which determined by health care staff at the time of study enrollment.

1.2 Outpatients complying with medical treatment by reviwing the record files in history of illness of the patients.

1.3 No history of drug and alcohol dependence, no diagnosed with brain dysfunction or cognitive impairments by reviwing the record files in history of illness of the patients.

1.4 These patients are able to read and write Thai.

1.5 All participants agree to participate in the investigation, as expressed in the consent form.

2.2 Exclusion criteria for the study included:

2.2.1. The Brief Psychotic Rating Scale's scores more than 30.

2.2.2 Receiving electro convulsion therapy during participate in the study.

2.2.3 Absence from at least one session.

2. Sample size

The appropriate sample size was determined based on statistical power, significant of .01, desired power of .80, and effect size of 0.80 (Cohen, 1992). The sample should be at least 38 participants in each group making a total sample of at least 76 participants. This study would follow the patients 10^{th} week after recruited day, thus this study would recruit 44 cases per group which assume an attrition rate of 15%.

3. Sampling procedures

When schizophrenic patients whose characteristics met the inclusion criteria were selected for the study, they were randomly assigned either the control and experimental group by using computerized simple randomization (SPSS) into two

groups in the number of “0” and “1”. The researcher used the sealed envelopes with mark the letter “E” for the experimental group and the letter “C” for the control. The researcher would set the number “0” and draw a ballot out from the sealed envelop and the number “1” would be the rest of envelop in order to assign the participants into either experimental (N=44) or control group (N=44). This technique minimizes the possibility of imbalance among potentially confounding variable and achieves better between the experimental and control group assignment (Zeller et al., 1997).

4. Sample attrition

Due to the long duration of the program, an above average dropping out of rate of participants was likely to occur. Ninety eight patients with chronic schizophrenia were screened from the patients’ record file of outpatient ward and excluded 10 of them because 8 cases had drug or alcohol dependence and 2 cases refused to participate in the program.

For the initial data collection, 88 participants who fulfilled initial criteria were approached to participate in the study, but 8 patients were unable to participate throughout the whole process of the study. The reasons for this dropout in the experimental group were-two participants failed to maintain follow up after intervention finished and two participants could not complete the session. The reasons for dropout in control groups were two participants refused to participate in the study and two participants had intensification of psychotic symptoms and admitted to the hospital. The final sample therefore, consisted of 80 patients, 40 of them were in the control group who obtained conventional nursing care while the other 40 were in the experimental group who obtained conventional nursing care in addition to Symptom Self-Management Program.

Details of the sampling procedure are presented in Figure 5

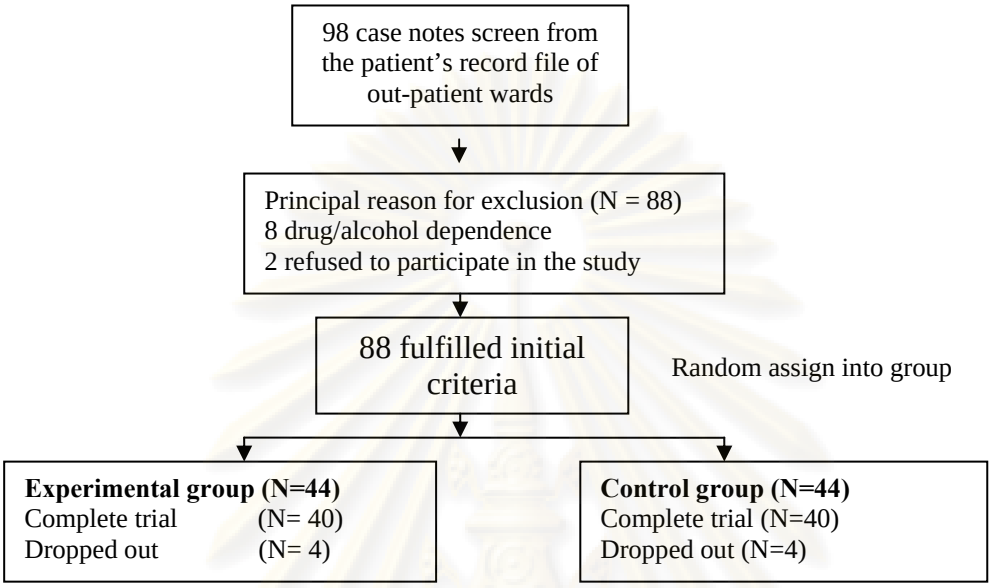

Figure 5 Details of the sampling procedure are presented

5. Sample approach methods

5.1 The researcher would approach the participants and present information regarding the intervention in non-technical term, benefits of the intervention and protection of human rights in order to seek their approval to participate in the study. Once the prospective participants agree to participate in this study, they would sign a consent form (Appendix C).

5.2 After grouping, participants of the control group would receive the conventional nursing care from the outpatient clinic, while the experimental group would receive the scheduled appointment to participate in the Symptom Self-Management Program (SSMP). Both groups completed the personal information sheet (Appendix D) and the Brief Psychiatric Rating Scale questionnaires (Appendix D) for the baseline. In addition, the experimental group would receive the Schizophrenia

Symptom Self-management Booklet (Appendix F). The control group would receive the SSMP booklet and medication box after finishing the program.

Setting

The study was conducted at the activity room in an outpatient ward, Galya Rajanagarindra Institute, Bangkok, Thailand. The outpatient clinic provides medical service Monday to Friday from 8.00 a.m. to 4.00 p.m. Each day, there are approximately 100-200 patients receiving medical services at the department. The services include medical treatment for psychotic illness by psychiatrists and provision of information and advice about psychotic illness from the psychiatrists and nurses.

RESEARCH INSTRUMENTS

The instruments used in this study comprised instruments for collecting data, monitoring the participants and for the intervention. The content validity of instruments was examined by 5 experts, including one psychiatric who was an expert in schizophrenia patients; two nurse instructors who were experts in psychiatric nursing, and two psychiatric nurses who were experts in taking care of schizophrenia patients. (Appendix A)

1. Data collection instrument

Two questionnaire instruments were used to measure the outcome of this study. They were the Personal Information Sheet and the Brief Psychiatric Rating Scale (BPRS), as detailed below.

1.1 The personal information sheet

The instrument was developed by the researcher for the collection of personal data of the sample concerning age, gender, marital status, education level, occupation, number of hospitalization, and length of having illness.

1.2 Brief Psychiatric Rating Scale (BPRS)

The Brief Psychiatric Rating Scale (BPRS) (Kolakowska, 1976 cited in Kenedy 1994) is an effective clinician-administered and research tool that was designed to assess psychiatric symptoms or treatment change in psychiatric patients in a rapid and efficient and economic way. The reasons to choose this instrument were the congruent concept of the schizophrenic psychotic symptoms and relapse in the study. In addition, the psychometric properties of this instrument from the previous studies were good.

BPRS was developed in the late 1960s as a short scale for measuring the severity of psychiatric symptomatology. It was developed primarily to assess change in psychotic inpatients and covers a broad range of area. In comparison to other interview and observational tools used in psychiatric assessment, this instrument appears responsive to treatment change. It is brief and does not take long to administer. This instrument consists of three subscales which cover 18 common psychiatric symptoms as following: 1) Positive psychotic symptoms including somatic concern, conceptual disorganization, grandiosity, hostility, suspiciousness, hallucinations behavior, unusual thought content, excitement and disorientation, 2) Negative psychotic symptoms including emotional withdrawal, mannerism and posturing, motor retardation, uncooperativeness, and blunted affect, and 3) Affective symptoms including, anxiety, guilt feelings, tension, inappropriate affect and depressive mood.

The BPRS involves a semistructured interview and a symptom severity rating on 18 items (or 21 items, if the expanded version is used). The scale was developed for use with the patients with the diagnosis of schizophrenia (Overall and

Gorham, 1962 cited in Kenedy, 1994). The scores can range from 18-126. Each item is rated on a seven-point scale varying from ‘not present’ to ‘extremely severe’; with high scores indicating more sever symptoms. Rating on the BPRS scale is based upon observation of the patient and verbal report by the patient. Minimum interrater reliability with a criteria rater for each BPRS subscale was .80 or higher (p [is less than] .001, intraclass correlation coefficient), and internal consistency (for one sample) was good. The inter-rater reliability between the researchers with 2 expert psychiatric nurses was .85. In addition, the researcher and the research assisstant were trained to use this instrument under supervisor of psychiatrist who is an expert in this area.

This study used the relapse criteria of Nuechterlein, Miklowitz, Ventura, Gitlin, Stoddard, et al. (2006) which proposed that the elevation on a remitted psychotic symptom on one of the symptoms in hallucination, delusion, or conceptual disorganized thinking up to 6 scores measured by Brief Psychiatric Rating Scale (BPRS) can determine psychotic relapse. The BPRS tried out with 30 patients with chronic schizophrenia, the resultant reliability for the questionniare was .87. The research assistant would use this instrument for data collecting. The inter-rater reliability between the research-assistant and researcher was .80. The measure of this instrument would be implemented for both groups in two times which were at the day of recruit to the study and 10^{th} week after the day of recruit.

2. Interventions instrument

2.1 Conventional Nursing Care is the usual psychiatric nursing care in out-patient clinical setting and community. This care gives by health care staff at the outpatient clinica. Theses patients receive this care during they come to visit or followup. The usual care is composed of the nursing care for promoting safety of

patients, promoting self-care for daily living, establishing therapeutic relationship, intervention for delusion, hallucination, socially inappropriate behaviors, teaching patients about caring, and establishing support and care with community.

2.2 The Symptom Self-Management Program (SSMP) was developed by using the vulnerability- stess model (Zubin & Spring, 1977) and self-management (Kanfer (1991) as a theoretical framework. The vulnerability- stess model was usd as a theoretical framework to understand the predicting factors to psychotic relapse, the pretectors of psychotic relapse and develop coping strategies to manage with their early symptoms. The self-management model was used as the strategies that patients applied to control and prevented the exacerbation of their symptoms by using the appropriate methods with existing resources. Therefore, the SSMP refered to the cognitive and behavioral efforts to minimize or reduce symptoms associated with relapse, including nonpsychotic and stress-related symptoms by using the strategy that is applied among schizophrenic patients in order to improve knowledge about psychotic relapse, enhance compliance with antipsychotic medication and symptom self-management, identify stress and personal warning signs of a psychotic relapse and coping with stress and warning sign or ealry symptoms through the process that includes self-monitoring, self-evaluation, and self-reinforcement. The development process of the program was composed of 4 phases:

2.2.1 Incubation of the Program

Intervention of this study, the Symptom Self-Management Program, was focused on the ability of the patients to care the symptoms by themselves. The researcher developed this program based on the self-management concept and

vulnerability-stress model. The development process of the program composed of 4 phases:

2.2.1.1 The Problem Assessment and Needs Identification Phase

The first phase began with assessing and identifying the problem in patients with chronic schizophrenia. According to vulnerability-stress model and literature reviewed on the problem in chronic schizophrenia and predicting factors of psychotic relapse in Thai and other countries both eastern and western countries, the findings found that the patients with chronic schizophrenia had poor monitoring of illness, misperception of the symptoms, impairment in daily functioning, stressful life event, low self-efficacy, no self-management skill, non-adherence to psychotropic drug, alcohol and substance abuse, limited ability to solve problem, social isolation, rehospitalization, and housing instability (Arthur et al., 2002; Addington and Burnett, 2004; Ayuso-Gutierrez et al., 1997; Csernansky and Schuchart, 2002; Dixon, et al.,1994; Fisher, et al., 1992; Gray et al., 2002; Herz and Marder, 2002; Kavanagh, 1992; Kennedy et al., 2000; Maijel, 2003; Meltzer et al., 1991; Robinson et al., 1999; Zubin and Spring, 1977). This information was the essential baseline data that facilitate the effective development of the program.

2.2.1.2 Preparation for Symptom Self-management Phase

After the patients could clearly identify the problem and establish a goal to solve the problem, the nurse should enhance the patients' knowledge and skill through the disease and symptom management condition. Education would be immediately intervened to correct patients' perception. The researcher should correct their perception by giving systematic information in order to improve the symptom

and symptom management perceptions, so that patients would learn the correct knowledge and have self-awareness.

2.2.1.3 The Practice for Symptom Self-Management Phase

This phase would implement the self-management process as following:

2. 2.1.3.1 Self-monitoring refers to a patients' observation and recording of early warning sign of psychotic symptoms that influence to psychotic relapse. It might involve any or all of 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.

2.2.1.3.2 Self-evaluation refers to obtain information from self-monitoring, establish goal to solve the problem and practice the management strategies regarding to the setting goal to appropriate psychotic relapse prevention experiencing information within his/her conditions and contexts.

2.2.1.3.3 Self-reinforcement refers to the reward that schizophrenic patients plan to give themselves based on successful performance in managing symptoms or achieving goals.

2.2.1.4 The Evaluation for Symptom Self-Management Phase

The final step is the evaluation for symptom self-management phase that included the outcome evaluation and terminate the program. This process needed the patient's self-monitoring strategy and active participation between the patient and the researcher. If the desirable outcome were not achieved, the whole process would be analyzed. The problematic process that was an obstacle for each patient would be

identified and corrected. If the evaluation were positive, the patient would be reinforced to continue the symptom self-management behaviors.

2.2.2 Program developmental phase

The data acquired from the needs assessment phase was used to plan a Symptom Self-Management Program. According to the vulnerability-stress model (Zubin and Spring, 1977) suggested that the basis of psychotic relapse prevention program should be modification of stress and vulnerability factors and emphasize on the protective factors which acted as a buffer against the effect of stress and biochemical vulnerability. Therefore, the researcher developed the intervention to enhance the personal protective factor to manage and reduced the psychotic symptom and promoted prevention of psychotic relapse in patients with chronic schizophrenia. This plan was flexible and allowed for the individual implementation. The details of the program were in the Manual of Schizophrenia Symptom Self-Management Program (see Appendix E). The intervention comprised two manual booklets.

2.2.2.1 Symptom Self-management Manual Booklet for patients with chronic schizophrenia. The booklet developed by the researcher was used as the manual for the samples in the experimental group. It contained information about schizophrenia, psychotic relapse and how to self-management psychotic symptom.

2.2.2.2 Manual of Symptom Self-management for Patients with Chronic Schizophrenia for the nurse. The researcher developed this manual to give the nurse in information on how to promote the SSMP for patients' symptom self-management. The conceptual framework, steps of the self-management promotion program and substance knowledge illustration about schizophrenia and early warning signs were included in this manual.

These two manuals were content validated by 5 experts; 1 psychiatrist, 2 nurses' instructors and 2 nurses' practitioners to determine its appropriateness. The comments and suggestions from the experts were too many sessions, long timing in the seesions, too many details and contents, some complicated contents, and too many informations in manual booklet and worksheet.

2.2.3. Program trial phase

The revised program manuals were try-out on 5 multiple episode schizophrenic patients who had similar characteristics to the patients in the study. The objectives for conducting the pilot study were (1) to determine the feasibility of the proposed study, (2) to identify problems of an experimental intervention, and (3) to examine the validity and reliability of the research instrument. Then the researcher reported any problems to advisors. The results of try-out indicated that the researcher should combine some related contents because in some sessions there were too many contents to follow and in some sessions more time to practice skill was needed.

2.2.4 Modification phase

The suggestions from the experts and the results of try-out indicated that the researcher should modify the protocol of the program by combining some sessions together and extending time of sessions. Therefore, the protocol of Symptom Self-Management Program is composed of session 1 with 60 minutes, session 2 and 3 with 90 minutes/session and session 4, 5 and 6 depending on patients. (4 weeks took place in Galya Rajanagarindra Institute; 2 weeks were followed up by telephones).

Preparation of the research assistant

The research assistant in this study was a volunteer clinical psychiatric nurse with master degree in psychiatric nursing and being an advanced practitice nurse

(APN) from the Outpatient ward of Galya Rajanagarindra Institute who helped administer the questionnaires to the samples. The due information necessary for the assistant such as objective, procedures, and the questionnaires used in the study was provided. To endure the mutal understanding of the factors mentioned above, the question and answer were repeated until the assistant demonstrate the correct understanding of the whole process of the Program. In addition, the assistant was well trained to use all the instruments.

3. The instrument for monitoring experimentation

3.1 The Schizophrenia and Psychotic Relapse Test

This instrument is for assessment and evaluation knowledge and understanding about schizophrenia, psychotic relapse and prevention by using right/wrong choices (right =1 score, wrong = 0 score). The quiz tests (10 items) were developed by the researcher based on literature review and created the items which cover important content. After that, the researcher brought these items to the expertise which composed of 1 physician, 2 nurse instructors, and 2 practical nurses. The content validity would be validated by the experts, the CVI=0.8. The reliability of this instrument was tested on 30 persons with schizophrenia. The reliability of this instrument was done by using Kuder Richardson-20 (KR-20) was .81.

3.2 Symptom Recognition Questionnaire

Early Signs Scale (ESS), developed by Birchwood et al. (1989) was utilized for monitoring early symptoms prior to the relapse in patients with schizophrenia. The reasons to choose this instrument to this study were the congruent concept of monitoring early psychotic symptoms by persons with schizophrenic in the

study. In addition, the psychometric properties of this instrument from the previous studies were good.

This instrument was developed based on an extensive literature review and a monitoring of early signs prior to the hospitalization in 42 patients and their families, using a semi-structured interview questionnaire with close-ended and open-ended questions. The questionnaire was then developed into the Early Signs Scale, which is a Likert Scale questionnaire containing 34 questions about early symptom before the relapse. The symptoms are classified into four domains comprising anxiety or agitation (6 items), depression or withdrawal (11 items), disinhibition (7 items), and incipient psychosis (10 items).

The answer for this measurement is four-point scale ranging from no symptom (0), once a week or no problem (1), several times a week but not everyday or mild problem (2) to at least once a day or moderate problem (3). The total score in this ranges from 0-102.

Birchwood and associates (1989) measured the psychometric property of this instrument by examining the concurrent validity with the brief symptom inventory in 42 patients with schizophrenia. The results showed correlation value between 0.74 and 0.86; the sensitivity value for predicting illness relapse was 63 percent with the specificity for the prediction of relapse 82 percent.

The reliability of this instrument is between 0.76 and 0.95. Birchwood and associates (1989) examined the results of instrument utilization with both self-report and observation methods and found the alpha-coefficient of the overall measure =0.93 (0.95), for the questions concerning anxiety or agitation = 0.81 (0.86), depression or withdrawal = 0.88 (0.90), disinhibition= 0.83 (0.83) and incipient

psychosis = 0.90 (0.88). The trial was conducted again two weeks later with 19 out-patients with schizophrenia; the correlation value of the self-report= 0.98 ($P<0.05$) and the observation =0.84 ($P<0.05$). It was also found that scores from the observation is correlated with scores from self-report ($r=0.81$, $P<0.05$).

Kennedy, Schepp and O'Connor (2000) used the ESS to assess symptom recognition in 60 patients with schizophrenia and measured the internal consistency reliability with Cronbach's Alpha. The Cronbach's Alpha coefficient of the whole instrument was at a good level of 0.92 and the remeasurement of consistency resulted in correlation coefficient = 0.55.

The Thai version is available which was translated by Changming (2003) with the back-translation technique and the content validity of the translated version was examined by five experts. The scale points were rated by the frequency of symptom occurrence with the following answer choices: no symptom (0), once a week (1), several times a week but not everyday (2), and at least once a day (3). The total score is in the ranges of the 0 to 102 points. The Alpha coefficient in 100 patients with schizophrenia, the resultant reliability for the whole questionnaire = 0.88, anxiety or agitation = 0.59, depression or withdrawal = 0.74, disinhibition = 0.61 and incipient psychosis = 0.77.

For this study, the content validity by the experts showed the CVI = 20/34 = 0.88. The ESS tried out with 30 multiple episode schizophrenic patients; the resultant reliability for the overall questionnaires was 0.84.

3.3 Symptom self-management questionnaire

The Moller-Murphy Symptom Management Assessment Tool (MM-SMST), designed by Murphy and Moller (1993) was developed for the assessment of

health problems and the management of symptoms indicating relapse, following the concept of the Wellness Model. The reasons to choose this instrument to this study were the congruent concept of coping with symptoms in persons with schizophrenia. In addition, the psychometric propoties of this instrument from the previous studies were good.

This instrument was developed based on extensive literature review and the interviews with 95 patients with psychotic disorders, using semi-structured interview containing close-ended and open-ended questions. The sample was composed of 76 patients with schizophrenia, 7 patients with affective disorders and 12 patients with depressive disorders. The measure was then developed into a Likert Scale for assessment of symptom management composing of 38 question items divided into six 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 first four domains are positive approach that will improve the symptoms and lead to healthy condition. The fifth approach sustains the symptoms and does not induce healthy condition. The six approaches will lead to abnormal symptoms.

The answer for each question in the original measure was divided into three parts. The first part is related to the length of time that the patients have been using that approach (1 month, 6 month, 1 year, and several years); the second part is related to the frequency of use (not at all, every month, every week, every day, continuously); and the third part is related to perceived outcomes (seldom works, works sometimes, often works, works constantly).

Murphy and Moller (1993) examined the qualification of this tool by measuring the content validity and internal consistency in 95 patients with schizophrenia. The Alpha coefficient = 0.79.

Later, Kenedy, Schepp, and O'Connor (2000) modified this measure for a study of symptom Self-management in 60 patients with schizophrenia. The Alpha coefficient for the part concerning symptom management = 0.91 and perceived outcomes of symptom management = 0.92. The test-retest for symptom management and perceived outcomes of symptom self-management results in correlation value 0.84 and 0.38, respectively.

The symptom assessment tool modified by Kennedy, Schepp and O'Connor (2000) was translated by Changming (2003) with the back-translation technique and the content validity of the translated version was examined by five experts. The scale for the frequency of using the symptom management was changed to never (0), seldom (1), occasionally (2), frequency (3) and always (4) so that it is easier to understand for the sample. The total for each part of the questionnaire ranges from 0 to 152. A high score indicates more management of symptoms and the more perceived outcomes of symptom self-management. A low score indicates less management of symptoms and less perceived outcomes of symptom self-management. From the trial of Changming (2003), the Alpha coefficient in 100 patients with schizophrenia, the resultant reliability for frequency of using a strategy for symptom management questions were: Whole questionnaire = 0.88, distraction = 0., fighting back = 0.62, help-seeking = 0.29, attempts to feel better = 0.28, isolation = 0.47 and escape behavior = 0.32. For perceiving outcomes of symptom self-management, the results were: Whole questionnaire = 0.79, distraction = 0.71, fighting

back = 0.58, help-seeking = 0.52, attempts to feel better = 0.36, isolation = 0.04 and escape behavior = 0.13.

For this study, the content validiy by 5 experts showed CVI= 34/36 = 0.94 After having tried out with 30 multiple schizophrenic patients, the Alpha coefficient in whole questionnaire showed in frequency of using strategy for symptom management and perceving outcomes of symptom self-management were 0.73 and 0.79.

3.4 Self-assessment of symptom management behavior form. This checklist was developed by the researcher for the participants in the experimental group to use to monitor their dailay practice while staying home. This checklist was divided into three parts: 1) general symptoms condition and controlling; 2) participants' affective behaviors toward the symptom conditions; 3) specific symptom self-management that the participants used to handle a symptom when it occurred. The participants were asked to monitor themselves according to the checklist in this form for 10 weeks after recruitment to the program. The researcher collected this form from the participants every week to ensure that each participant kept trace with the procedures designed in this study. No participants failed to follow this monitoring phase. (Appendix E)

THE PROTOCOL OF A SYMPTOM SELF-MANAGEMENT PROGRAM

The program was composed of four phases to manage schizophrenia symptoms. There were 1) the problem assessment and needs identification phase; 2) the preparation for the symptom self-management phase; 3) the practice for the symptom self-management phase; and 4) the evaluation for symptom self-management phase. The intervention was composed of 6 sessions. Session 1, 2 and 3 were

conducted as a group and duration of time consisting of 60 minutes in session 1 and 90 minutes in session 2 and 3. Session 4, 5, and 6 were conducted as an individual and duration of time in each session depending on each participant. The intervention process was summarized in Table 4.

Table 4 The summarization of the intervention process

CONTENTS	METHOD	SESSION & TIME
- Trust building - Introduction to the program - Mutual goal setting - Participation in process	- Group process	- Session 1 - 60 minutes
- Schizophrenia & Psychotic relapse knowledge - Early warning signs management skill training - Information about the resources that effect the management	- Group process - Group teaching - Group training	- Session 2 - 90 minutes - Session 3 - 90 minutes
- Self-monitoring - Self-evaluation - Self-reinforcement	- Daily self-monitoring form - Telephone follow up - Individual counseling	- Session 4 & - Session 5
- Process evaluation - Outcome evaluation	- Daily self-monitoring form - Participate with the researcher	- Session 6

The first session of the program began with assessment and identified the psychotic symptoms that they experienced. This phase was an important step for the nurse to understand the patients' condition. The researcher assessed 1) the patient's symptom experience, symptom perception, evaluation, and response, symptom knowledge, and symptom management skill, 2) their level of knowledge regarding medicine, 3) their level of knowledge regarding the cause of their disorders and their corresponding symptoms, 4) attitude toward taking medication and their ability to perceive disorders, 5) any difficulties in taking medication and any subjective discomfort and impairment due to illness, and 6) coping strategies.

After the patient could clearly identify the problems, establish the goal to solve the problem, the nurse would proceed to preparation phases. The second phase involved enhancing the patients' knowledge and skill through the disease and symptom self-management education. Education would be immediately intervened to correct the patients' perception. Then the training program would be designed to develop patients' ability to observe and analyze any abnormal symptoms by themselves and to enable them to make a decision. The symptom self-management education for schizophrenic patients gives patients relapse prevention knowledge; educating the patients about the disease, the prescribed medication and its side effect; educating the patients of the early warning sing of psychotic relapse and offering them coping strategies; educating the patients of the critical necessity of taking their medication; overcoming the patients' unwillingness to take medication; offering coping strategies to deal with the side effect of medication, and educating the patients about the stress and coping strategies .

The practice for symptom self-management phase, the third step, the patients should set goals to achieve desirable outcomes before they were required to continuously perform the monitoring of symptom of psychotic relapse. Self-monitoring activities included the daily observation of the early sign of psychotic warning and symptom self-management abilities. Effective self-monitoring would be manifested if the patients were abled to continuously perform those activities that these were taught in the second phase. In this phase the researcher should encourage the patients to practice while the patients lived at home.

The final step is the evaluation for the symptom self-management phase. Therefore, the patients can evaluate daily their psychotic symptoms and symptom

self-management at home by using Self-assessment of symptom management behavior form for self-monitoring. Then they would discuss the situation with the researcher by telephone and also face-to-face meeting. If the desirable outcomes were not achieved, then the whole process would be analyzed. If the evaluations were positive, the patients would be reinforced to continue the symptom self-management behaviors.

The symptom self-management program in each session was presented as following.

Session 1:

Objective: 1. Establish relationship between the patient and nurse

2. Assessment of patient's problem and evaluate their needs and provide information on their needs

Nursing activities: The 60 minute-session, the first session, began with program orientation and establishing the rapport between each subject and the researcher to build trust and cooperation. The participants were cooperating well with the researcher by giving the information of experiencing their illness and feeling of having illness into group. They were able to explain about their problems from the illness such as delusion, hallucination, anxiety, depression or irritable mood, etc. The researcher and the participants discussed the mental health problems, psychotic symptom, and treatment in order to have the mutual understanding of the problems and how to solve problems. Members of the group proposed the coping medthods that they were used to group such as distraction technique or relaxation technique, to take medication as psychiatrisst, recommend or to shout back with the sound that they heard, etc. In addition, they discussed about the effectivness of the coping methods to

others. The patients needed support from other people with similar issues, such as the support from the group members and the mental health professionals, in order to use effective management strategies and reduce their anxiety from prodromal symptoms or early warning signs. The group discussion used in this session helped the patients be aware of their symptoms and know they were not alone. A group leader facilitated safe interactions and shared experiences, and emotional support among group members. The researcher gave the manual of Symptom Self-Management Program, to distribute the monitoring instrument 'The Schizophrenia and Psychotic relapse Test' to answer for assessment of the knowledge and the information about schizophrenia and treatment, psychotic relapse, prevention of psychotic relapse and its management before the researcher beginning of this session to the participants. After such informations were given, the researcher discussed with the participants to confirm whether he/she had correct understanding about schizophrenia and how to conduct in a daily life. The researcher provided 15 minutes to closed session time for questions, discussion and evaluation session. The researcher assigned the participants to complete the Self-assessment of symptom management behavior form for their homework to complete in every day and brought it back in next time of meeting. During the closed session period, session conclusions and the next appointment were emphasized.

Session 2:

Objective: 1. Assessment of knowledge about schizophrenia and psychotic relapse from the perception of the participants

2. Providing information on schizophrenia and psychotic relapse about early warning signs of relapse and coping methods as their needs

Nursing activities: The 90 minutes-session, the second session, took place on the week after the first session. When the next session began, the researcher reviewed the content of the last session for ten minutes and asked participants about their problems while they stayed home or helped to answer questions that the participants were raised. Before starting this session, the participants completed the Symptom Recognition Questionnaires for assessment their early psychotic symptoms. This session intended to prepare the participants knowledge about early warning signs of psychotic relapse and its management composed of stress management, enhancing compliance with medication, methods to cope with psychotic symptom, and enhancing the symptom self-management ability by giving information and using booklet. The researcher asked the participants to follow the action he/she saw from the researcher to determine the participants gaining the symptom self-management skills. If the participants could follow every step approached he/she is retained until he/she had the appropriate skill for managing psychotic symptoms. Then the researcher explained the procedures that the participants could practice at home towards the booklet. Before closing the meeting, the participants received self-assessment of symptom self-management form to complete every day and send it to the researcher every week. The researcher provided 15 minutes to closed session time for questions, discussion and evaluation session. During the closed session period, session conclusions and the next appointment were emphasized. The participants who needed to contact the researcher before the appointment scheduled might call the researcher at any time.

Session 3:

Objective: 1. Reviewing knowledge of schizophrenia, and treatment especially in compliance with antipsychotic, schizophrenia relapse, stressful life event, early warning signs of psychotic relapse and symptom self-management

2. Setting plan for managing with early warning by using self-management strategies: self-monitoring, self-evaluation, and self-reinforcement

3. Practicing the stress management and coping with early warning sign skill

Nursing activities: The 90 minutes-session, the third session, occured the week after last session in the outpatient department. Before starting this session, the participants completed the Symptom self-management questionnaire for their baseline. In this session the participants submitted the self-assessment of symptom management behaviors to the researcher. The researcher and the participants evaluated the information gaining together. If the outcome did not meet with the expected the outcome goal, the researcher and the participants underwent further discussion until the participants understood the process correctly. In some case, the re-training was needed to equip the participants with the necessary knowledge and skills. The researcher informed the participants about the objectives and activities that they practiced during staying home. The researcher assigned the participants to complete the Self-assessment of symptom management behavior form during they practiced session 4 & 5 at home.

Session 4: The participants practiced all the skills at home. The researcher monitors by telephone follow up. This was done through verbal persuasion, praise of performance accomplishment, and applause for their competency.

Objective: 1. To practice all the process after receiving information and skill building including: self-monitoring, self-evaluation, and self-reinforcement

2. To be able to monitor the early warning signs by themselves

3. To be able to evaluate the early warning signs by themselves

4. To develop the appropriate the self-reinforcement in symptom self-management

Nursing activities: In this session, the participants practiced all the skill at home and duration of time of intervention depended on each participant. The researcher monitors by telephone follow up at one week after the third session. A telephone follow up was conducted in this session. For those who did not have the telephone the participants used the public telephone to report their symptom status and symptom self-management to the researcher. The objective of this session was to practice all the process after receiving information and skill building including: self-monitoring, self-evaluation, and self-reinforcement. The researcher and the participants exchanged information and the researcher helped the participants when the participants had obstacles or problems. The detail of this session was reviewing the early warning signs, medication use, and side effect management; inquiring about success and obstacles from the weekly Self-assessment symptom management behavior form by setting goals attainment, encouraging and assisting problem solving; reinfoecing teaching and answering questions about schizophrenia and psychotic relapse management; encouraging to practice symptom self-management techniques which are distraction, fighting back, help-seeking, attempts to feel better, isolation

and escape behavior; reminding the participants to practice weekly symptom self-management plans including self-moitoring, self-evalaution, and self-reinforcement. The problems that the participants consulted with the researcher about stress in life events such as conflicting with family members, friends, or spouse; the side effect from taking medication; increasing early waning signs such as increasing of sound that they heard, insomnia, mood irritation, poor appetite, social withdrawal, or abnormal personality. The researcher and each participant set the individual goal of attainment and plan for implementation in his/her situations. The researcher called each participant one time during this session, but the participants were allowed to call the researcher at any time if they needed to. The researcher assigned the participants to complete the Self-assessment of symptom management behavior form during they practiced session 4 at their homes.

Session 5: The participants practiced all the skills at home. The researcher monitored by using telephone follows up.

Objective: 1. To practice all the process after receiving information and skill building including: self-monitoring, self-evaluation, and self-reinforcement

2. To be able to monitor the early warning signs by themselves

3. To be able to evaluate the early warning signs by themselves

4. To develop the appropriate the self-reinforcement in symptom self-management

Nursing activities: In this session, the participants practiced all the skills at home and duration of the time of intervention depending on each participant. The

researcher monitored by telephone follows up at one week after the fourth session. The objective of this session was to practice all the process after receiving information and skill building including: self-monitoring, self-evaluation, and self-reinforcement. The researcher inquired about the success and obstacles for the goal-setting and action plan from the last session. The researcher and the participants exchanged information and the researcher helped when the participants had obstacles or problems. If the problems could not be solved, the researcher and the participant re-analysed the problem again, revised the goal attainment, and acting plan and encouraged and assisted problem solving by giving advice for developing good family support and seeked support from outside the family. For example, if the participants had not enough money to spend for their living because of their illness, it made stressed and anxious. The researcher and the participants set the goal-attainment to decrease stress and anxiety by talking to other members in the family about his problem, using relaxation techniques, thinking positively with himself, and looking for jobs to earn some money. The researcher called each participant one time during this session, but the participants were allowed to call the researcher any time if they needed to. The researcher assigned the participants to complete the Self-assessment of symptom management behavior form during they practiced session 5 at home.

Session 6: Evaluate and terminate the program

Objective: This session aimed to practice all the process after receiving information and skill building and to evaluate the program. The investigator continued to enhance patients' symptom self- management skills by encouraging them to make progress toward their goals and to monitor their goal attainment.

Nursing activities: This session aimed to evaluate outcomes and terminate the program. The investigator continued to enhance patients' symptom self-management skills by encouraging them to make progress toward their goals and to monitor their goal attainment. If the desirable outcome can not be achieved, the whole process will be analyzed and the problems will be identified and corrected. If the evaluation is positive, the patient will be reinforced to continue the symptom self-management behaviors. It was stated that the major therapeutic effect of these participants were the self-responsibility in the core component of closed monitoring for prodromal symptoms on a weekly basis with the prompt self-management skills when the participants appeared to be effective in detecting these symptoms earlier and thus reducing relapse rates in experimental group. The participants were encouraged to assess their prodromal symptoms or early warning signs, practice symptom self-management skills to reduce prodromal symptoms in a group setting, practice the skills in managing their real lives at their home environment, and evaluate the outcomes from their perspective. Furthermore, the participants were asked to record the use of their symptom management strategies in a Self-assessment of symptom management behavior form provided by the researcher. By assessing and monitoring their own symptoms and management strategies, the participants reported that they felt more accepting their symptoms and more self-control. In this session, the participants completed the 'Schizophrenia and psychotic relapse test', Symptom recognition questionnaire' and 'Symptom self-management questionnaire'.

Procedure in the Control Group

1. The participants who were assigned to the control group received a set of written materials on the date of data collection at baseline.

2. The participants in the control completed questionnaires at the initial of the program and 10th week after recruitment. Contact were kept with the control group by telephone calls at two points (initial the program, and 8th week after recruitment) to remind them of dates of appointments.

3. The researcher made appointments with the subjects at 10th week for posttest. The time of the appointments depend on health status of the subjects. During the time of the physician's visit, the subjects would attend conventional nursing care at outpatient clinic conduct by the psychiatric health care team.

4. The subjects were got the symptom self-management booklet and the medicine box in the day of assesses the posttest.

THREATS TO INTERNAL VALIDITY IN THE STUDY

Internal validity is defined as the observed effect of the dependent variable that is actually due to the action of the independent variable and not to extraneous variable (Cook and Cambell, 1979). Threats to internal validity include history, maturation, testing, instrumentation, and selection bias (Burns and Grove, 2005).

History refers to an event that is not related to the planned study but that occurs during the time of study. History could influence the responses of participants to the treatment. In this study, it is possible that the participants received some knolwdge from other sources such as psychiatrist or medical staff. However, the threat should be minimized by the randomization process in that each participant will have an equally likely chance of being in either group.

Maturation refers to the developmental, biological, or psychological processes. Maturation is operated within an individual as a function of time. Maturation is also external to the events of this investigation. This threat effect can be

possible in this study such as the age of participants and number of receiving treatment in an inpatient. Participants who have more experiences the problem under study can provide valued information. This could constitute a threat to maturity. However, the threat should be minimized by the randomization process in each participants will have an equally likely chance of being either group. If the sample size is sufficient these processes should be equally distributed across groups.

Testing refers to the effect of taking pretest on the subject's posttest score. Although, this study used the same test between pretest and posttest, the long duration of time could be minimized this threat.

Instrumentation threat can be due to changes in measurement instruments between the pretest and the posttest rather than a result of the treatment. The validity and reliability of the instruments have been assessed and reported. To minimize instrumentation threats in this study, the same instrument (i.e., Brief Psychotic Rating Scale) was used for all participants. In addition, the same person who collected this outcome data from all participants and minimized the bias, was well trained before starting data collecting and verified the data with other experts in the clinical field.

Selection bias is an observed effect due to preexisting differences between those who volunteer for the study and the larger population from which they were selected (Cook and Campbell, 1979). It is the nature of clinical trial to recruit convenience or volunteer samples since the parameters of the population are rarely known. To maintained high ethical standard, only volunteers can be recruited. In this study, most of the volunteers are males and young ages. Therefore, the selection bias was minimized in this study by randomized volunteers to either the experimental or the control group.

Mortality threat refers to participants who drop out of the study before completion. Mortality becomes a threat when (1) those who drop out are different types of persons from those who remain in the study or (2) there is a difference between the kinds of people who drop out of the experimental group and the people who drop out from the control group. Although there were some dropping out from the study in the experimental and the control group, the large of sample still remained and could represent population of the study.

DATA COLLECTION PROCEDURES

1. After the study was approved by the administration of Galya Rajanagarindra Institute (Appendix I), the researcher informed the director of nursing and head nurse of outpatient clinic, explained the study propose and procedure, the beginning of the study and the approximately length of data collection. They suggested the researcher about the problem of attrition rate of schizophrenic patients from the out-patient clinic and gave advice to prevent drop outs from the study.

2. The researcher recruited the prospected sample according to the inclusion criteria in this study. Once the sample had been identified, the researcher clearly explained the details of the program including its advantages and disadvantages before signing the consent form if the sample agreed to participate in this study. Those who wish to participate would read and sign an informed consent.

3. The demographic data of the sample were asked.

4. The research assisstant conducted the pretest by asking the participants to answer the Brief Psychotic Rating Scale (BPRS). The research assistant explained the method and the meaning of the scale measurements to the samples.

5. The researcher explained the participants about which group they would be in the control or the experimental group. The participants gave their addresses and telephone numbers to the researcher.

6. The researcher randomly assigned the participants into an experimental and a control group.

7. The researcher called the experimental group to set the date and time of the program.

8. The researcher set the time table for the date and time of implementing the program with the participants. The researcher informed the participants that the research called and notified the participants about 2 days before starting each session.

9. The sample in the control group and the experimental group still received conventional nursing care routinely conducted by the health personnel at the outpatient department.

10. The researcher implemented the Symptom Self-Management Program to the participants in the experimental group.

11. When the participants came back to the hospital for follow up in the next month (at 10^{th} week aftere recruitment), they were asked to complete by Brief Psychiatric Rating Scale (BPRS). The control group had no chance to meet with the experimental group because of different in appointment date.

12. The participants in the control group were given the symptom self-management booklet and the medicine box in the day of evaluation.

PROTECTION OF THE RIGHT OF HUMAN SUBJECT

The study proposal was submitted to the Ethics Committee, Galya Rajanagarindra Institute, for approval prior to data collection. After obtaining the

permission to conduct a study from the administration of Galya Rajanagarindra Institute, the potential participants who met the study criteria were informed of the purpose, procedure, benefits, and risks of the study. The participants learned about symptom self-management which helped them to take care of themselves and prevent psychotic relapse due to the problems of re-hospital before giving their approvals. The written information declared all the rights the participants had (see Appendix B and C). The participants were clearly informed of their rights to terminate at anytime with no consequences at all. They were assured that their willingness to participate in the study had no implications for the health care services that they received. Their decisions to discontinue participating in the study did not affect their relationship with health care providers or their access to any services available at the hospital.

This intervention program presented no harm at all to the participants, and did not interrupt with the routine nursing care or medical care. It also made the effective nursing care to encourage the patients' symptom self-management behaviors. Then psychotic symptom was decreased which could prevent psychotic relapse in these participants. Throughout the study process, the researcher made attempt to avoid any possibility of discomfort, interference, over excessive response burden on the participants. Confidentiality of data collection was ensured both during and after data collection.

DATA ANALYSIS

Data from two questionnaires were analyzed by descriptive statistice. The statistic methods were presented as following:

1. Descriptive statistics were used to describe the demographic characteristics of the samples, the patients with chronic schizophrenia characteristic including

frequencies and percentages. In order to test the differences in the demographic data between the participants in the control and the experimental groups, a chi-square and independent t-test were conducted.

2. Charecteristics of data to be analyzed were initially considered to match the appropriate statistical test. In this study, the discrepancy of the unit of measurement was realized. The unit of measurement of the psychotic symptom and psychotic relapse data was considered. To maximize its usefulness to the knowledge development, the interval scaling was assumed in collecting data concerning the psychotic symptoms and psychotic relapse of the participants. This scale allowed the researcher to compare and collate the finding from this study to other studies.

3. Considereration of the distribution of the data was the next necessary step to be taken. If the distribution of data was normal the parametric test could be used. The result of Kolmogorov-Smirnov Test showed the normal distribution of psychotic symptoms of the total samples, the samples in the control and the experimental group at the pretest and posttest phase, parametric test was conducted to examine the differences of the variable. The distribution of psychotic symptom variable at the pretest and posttest of the whole group (Kolmogorov-Smirnov z-test = 0.76, p = .61) found that the distribution of the dependent variable at the pretest was normal. Therefore, the parametric test such as t-test or F-test was conducted to examine the difference of the score of those variables.

4. According to the psychotic relapse, it was a norminal scale in unit of measurement. Therefore, a two proportion Kolmogorov-Smirnov z-test of dependent and independent samples was used for comparison of psychotic relapse in the experimental groups and the control group.

CHAPTER IV

RESEARCH RESULTS

The purpose of this study was to examine the effect of symptom self-management intervention on psychotic relapse among patients with chronic schizophrenia. The sample was composed of 88 schizophrenic patients receiving medical service at the outpatient clinic of the Psychiatry Department, Galya Rajanagarindra Institute. The patients whose characteristics met the inclusion criteria were randomed before there were assigned to either experimental or control group, resulting in 40 patients in each group. Patients in the experimental group who participated in the symptom self-management program once a week for 6 sessions, whereas patients in the control group received conventional nursing care from hospital staff. During the study, four patients in the experimental group dropped out because two of them failed to maintain follow up after the intervention and another two participants could not complete the session. There were 4 participants dropping out from the control group because two participants refused to participate during the study and others two had intensification of psychotic symptoms. Thus, the numbers of patients in both groups were eighty. Data were collected twice: the recruit date and 10^{th} week after recruitment. The patients were interviewed about their personal information and the characteristic and severity of psychotic symptoms for the collection of data.

The obtained data were analyzed with descriptive statistic. The research findings were presented in two parts as following:

Part 1. The descriptive analysis of the demographic characteristics of the samples

Part 2. The results of hypotheses testing with the description of the dependent variables.

PART 1: THE DESCRIPTIVE ANALYSIS OF THE DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLES

Characteristics of the samples

1. Demographic characteristics of the samples on Gender, Age, Marital Status, Occupation, Education

Table 5 Demographic characteristic of the control group and the experimental group:

Gender, Age, Marital Status, Occupation, Education

Characteristics	Control		Experimental		χ^2(df)	p-value
	N	%	N	%		
Gender						
Female	13	32.5	7	17.5	2.40(1)	0.12
Male	27	67.5	33	82.5		
Age						
20 – 29 years	5	12.5	14	35	9.16(3)	0.03
30 – 39 years	16	40	18	45		
40 – 49 years	12	30	6	15		
50 – 59 years	7	17.5	2	5		
Mean = 36.16 years SD. =	9.59					
Marital Status						
Single	22	55	25	62.5	0.46(2)	0.79
Married	11	27.5	9	22.5		
Widow/divorce/separate	7	17.5	6	15		
Occupation						
Office Staff	11	27.5	9	22.5	1.86(2)	0.39
Labor for hire and Famer	14	35	10	25		
Student and Unemployment	15	37.5	21	52.5		
Education						
Elementary	13	32.5	13	32.5	2.06(3)	0.56
Secondary	5	12.5	4	10		
High school	13	32.5	18	45		
Diploma/Bachelor	9	22.5	5	12.5		

$p<.05$

From table 5 revealed the characteristics of the control group and the experimental group. Most of the samples in this study were males (75%), were in the age groups of 30-39 years (42.5%), single (58.75%), unemployed (32.5%), and graduated from high school (38.75%).

In the control group, about two-third the participants were males (67.5%), in the age groups of 30-39 years (40%), single (55%), and unemployed (30%). (32.5%) graduating from elementary and high school.

In the experimental group, the majority of the participants was males (82.5%), the age groups of 30-39 (45%), single (62.5%), unemployed (35%), and graduated from high school (45%).

Chi-square test revealed no statistically significant difference between the control and the experimental group regarding gender, marital status, education, occupation, but there was statistically significant different in age groups of the control and the experimental group (p-value=.03). Participants were randomly into groups, thus, it could be assumed both groups were similar demographic characteristics.

2. Demographic characteristic of the control group and the experimental group on Number of receiving treatment and Duration of having illness

Table 6 Demographic characteristic of the control group and the experimental group: Number of hospitalization and Duration of having illness

Characteristics	Total		Control		Experimental		t	df	p-value
	Mean	SD.	Mean	SD.	Mean	SD.			
Number of Hospitalization (time)	2.45	0.73	2.40	0.67	2.50	0.78	0.61	78	0.54
Duration of having schizophrenia (time)	3.23	1.54	3.10	1.53	3.36	1.56	0.78	78	0.44

p>.05

From table 6 revealed the characteristics of the control and the experimental group. Number of hospitalization, the total participants' number of hospitalization ranged from 2 times to 5 times ($\overline{X}$ =2.45; SD=0.73). In the control group, the number of hospitalization ranged from 2-5 times ($\overline{X}$ =2.40, SD=0.67). As for the experimental group, the number of hospitalization ranged from 2-5 times ($\overline{X}$ =2.50, SD=0.78). Duration of having schizophrenia in the total participants ranged from 1-5 years ($\overline{X}$ =3.23, SD=1.54) like the experimental group, the duration of having schizophrenia ranged from 1-5 years ($\overline{X}$ =3.36, SD=1.56).

PART 2: THE RESULTS OF HYPOTHESES TESTING WITH THE DESCRIPTION OF THE DEPENDENT

Hypothesis: The patients with chronic schizophrenic who received a symptom self-management program and conventional nursing care would have significantly lower psychotic relapse than those who received only conventional nursing care.

To answer Hypotheses, the psychotic symptom was compared and Kolmogorov Smirnov Z was performed.

From the table 7 revealed that mean total scores of pretest in positive symptoms, negative symptoms, affective symptoms and total score were 11.63 (SD.=2.18), 7.89 (SD.= 2.30), 7.46 (SD.= 2), and 26.98 (SD. = 3.49), respectively. The mean total score of post test in positive symptoms, negative symptoms, affective symptoms and total score were 14.88 (SD.= 6.14), 8.75 (SD.= 3.43), 9.93 (SD.=4.55), 33.55 (SD.=12.10), respectively. This table showed the mean score of psychotic symptom in positive, negative and affective symptoms between the control and the

experimental groups in pretest were similar, but in posttest means scores of all psychotic symptoms in the experimental had lower than in that control group.

Table 7 The comparison of positive symptoms, negative symptom and affective symptoms between the control group and the experimental group at the pretest and posttest

BPRS Scores	Total		Control		Experimental	
	Mean	SD.	Mean	SD.	Mean	SD.
Pretest						
Positive symptoms	11.63	2.18	11.65	2.09	11.60	2.28
Negative symptoms	7.89	2.30	7.50	1.99	8.28	2.54
Affective symptoms	7.46	2.00	7.80	1.94	7.13	2.03
Total	26.98	3.49	26.95	3.28	27.00	3.72
Posttest						
Positive symptoms	14.88	6.14	16.68	6.60	13.08	5.11
Negative symptoms	8.75	3.43	10.83	3.36	6.68	1.94
Affective symptoms	9.93	4.55	12.33	3.83	7.53	3.92
Total	33.55	12.10	39.83	11.06	27.28	9.68

The comparison of psychotic relapse rate between the control group and the experimental group at 10th week after recruitment revealed that there were 4 cases* (30.8%) in the experimental group and 9 cases* (69.2%) in the control group who were experiencing psychotic relapse (Appendix H) by using the relapse criteria of the elevation on remitted psychotic symptom on one of the symptom in hallucination, delusion, or disorganized thinking, up to 6 scores (Nuechterlein et al., 2006).

The results showed that the patients with chronic schizophrenia who received a symptom self-management was significantly lower psychotic relapse than those who received conventional nursing care ($p<.05$) (See table 8). Therefore, hypothesis was supported.

Table 8 The comparison of psychotic relapse between control group and experimental group

Psychotic Symptom	Experimental		Control		Total		Kolmogorov Smirnov Z	p-value
	N	%	N	%	N	%		
None relapse	36	53.7	31	46.3	67	83.8		
Relapse	4	30.8	9	69.2	13	16.3	4.52	0.00
Total	40	100	40	100	80	100		

p>.05

CHAPTER V

DISCUSSION

This study is a randomized control trial research aiming to evaluate the effect of symptom self-management intervention on psychotic relapse among persons who are suffering with schizophrenia. The sample was composed of 88 schizophrenic patients receiving conventional nursing care at the outpatient clinic, Galya Rajanagarindra Institute. The patients whose characteristic met the inclusion criteria were included to the study. 44 were randomly assigned into the control group and 44 patients in the experimental group. During the study four patients in the experimental group dropped out because two failed to maintain follow up after the intervention and another two subjectes could not complete the session. There were 4 participants dropped out from the control group because two participants refused to participate during the study and others two had intensification of psychotic symptoms. Thus, the numbers of patients in both groups were eighty. Patients in the experimental group participated in the symptom self-management program and the conventional nursing care whereas patients in the control group received only the conventional nursing care from hospital staff. The Kolmogorov Smirnov Z was performed for data analysis. The results were discussed according to the research hypothesis, as presented below followed by detailed discussion of their implication. Limitations of the study and suggestions for future research are also considered.

This chapter presents a discussion of the research findings. It presents characteristics of the participants; elaborates the effects of the symptom self-management program on psychotic relapse; discusses the theoretical aspects; and finally, considers methodological issues.

DISCUSSION OF FINDING

Deveopmental the Symptom Self-Management Program

The program enhanced the self-management ability to control and decrease the psychotic symptoms in patients with chronic schizophrenia by received skill training regarding managing with psychotic symptoms over 6 weeks. Besides knowledge improvement, problem solving skill, goal setting, stress management skill, and self-monitoring skill were improved by discussion, activities assignments, and practicing in groups and their homes. After attend group of each week, the subjects practiced their self-management at home. When the subjects participated in the symptom self-management group in the following week, they shared their experiences about self-management practices with other members or asked questions that they had in the group. Furthermore, the researcher used a combination of helping techniques; teaching, support guidance, consult, and providing a suitable environment, using the circumstances of a good relationship between nurse and patients. These techniques would build trust and a good relationship between nurse and patients. All these methods stimulated the subjects to learn about schizophrenia care and gave them internal motivation to change their behavior.

Effect of the Symptom Self-Management Program

Hypothesis: The patients with chronic schizophrenic who received a symptom self-management program and conventional nursing care would have significantly lower proportion of psychotic relapse than those who received only conventional nursing care.

To answer hypothesis, a Kolmogorove Smirnov Z was performed. The results of psychotic symptom showed that the posttest mean score of the Brief Psychotic

Rating Score (BPRS) in the experimental group after intervention had lower scores than that of the control group (Table 7). After receiving the program, the posttest means scores of all psychotic symptoms in the experimental had lower than that in control group, thus, patients in the experimental group (mean=27.28, SD=9.68) had lower psychotic symptom than those in the control group (mean=39.83, SD=11.06). (Table 7) Therefore, this study showed that the psychotic symptom had significantly effected to psychotic relapse (Table 8). This study was congruented with Stengburg et al. (1998) studied the effects of the Liberman Module 'Symptom Management' with readmission at the outcome measure. This indicated that the patients who had participated in the training program had had much less serious psychotic symptoms than did the participants in control group.

The results of this study showed most of the participants in the experiemental group had decreased psychotic symptom scores, but some of them still experienced relapse (4 cases). On the other hand, the control group had an increased psychotic symptoms and relapse (9 cases) than the experimental group. The proportion of psychotic relapse in the experimental group had statistically significant lower relapse than that of the control group. Most of the patients experiencing psychotic relapse had hallucination (8 cases), delusion (2 cases), thought disorganization (1 case), and hallucination and delusion (2 cases). The psychotic symptom to enhace of relapse supported in the patients with chronic schizophrenia showed the most prominent symptoms of acute schizophrenia are hallucinations and delusion (McCann and Bowers, 2005). Evidence from previous studies demonstrated that most schizophrenia patients were chronically ill and had severe symptoms. Many clients had a long duration of illness and continued to experience psychotic relapse and beliefs despite

neuroleptic medication. As a result, re-admissions were frequent (Chan et al., 2000). After gathering informations of the participants in the experimental group who had psychotic relapse, they had conflicts with family members, and taking alcohol and substance abuse.Therefore, the relapse in the experimental group can come from other factors that influenced to relapse such as high experess emotion in family (Lamberti, 2001), and alcohol and substance problem (Talyor et al., 2005).

The SSMP was developed by using Vulnerability-stress model and self-management model as the guideline to control early psychotic symptoms and prevent psychotic relapse. The vulnerability – stress model suggested that the basis of relapse prevention program should be the modification of stress and vulnerability factors and emphasize on the protective factors which act as a buffer against the effects of stress and biochemical vulnerabilities or which minimize the severity of symptoms (Hultman, Wieselgren & Ohman, 1997; Meijel et al, 2003). In which this intervention has been conducted to intervene the major predicting factors of psychotic relapse which composed of medical non-adherence, stressful life events and promoted the protective factors such as ability to coping with stress. The results of using the vulnerability-stress model as a guideline to prevent psychotic relapse in this study was congruent with the study of Thongkhamrod (2001) who conducted the psychotic prevention program in first episode schizophrenic patients. The results showed the psychotic relapse in the experiemental group had statistical significantly lower than the control group.

The Early Signs Scale (ESS) (the monitoring instrument) showed the participants in the experimental group increased overall mean score of symptom recognition was from 47.25 (SD = 14.36) at pretest to 78.33 (SD = 8.17) at posttest

(Appendix G), indicating high level of symptom recognition among the participants. The results showed that the participants were able to identify the symptoms. The symptoms that were recognized most was anxiety/agitation, followed by depression or withdrawal incipient psychosis, disinhibition and (mean 26, 25.25, 14, 13.08, respectively). (Appendix G) These results are relevant with the results of previous studies on early symptoms before relapsing of illness, which showed that most schizophrenic patients can monitor and identify their early symptoms. Most early symptoms are the symptoms of anxiety such as tension, anxiousness, insomnia, agitation and tiredness (Herz, 1984; Glimcher et al., 1986; Birchwood et al., 1989; Hamera, 1991). These results could be explained from the fact that schizophrenic patients are vulnerable to any changes due to the neurological dysfunction that makes them exquisitely sensitive to intrapersonal, interpersonal and environmental stressor (Zubin and Spring, 1977 cited in O'Connor, 1994). Therefore, the patients mostly perceived and identified early symptom of anxiety/agitation. Nevertheless, the results regarding each symptom in details show that the symptom being reported with the three highest frequency of sample's detection were preoccupying with one or two thoughts, feeling quiet and withdrawn and feeling of tense, fear or anxiety. This finding reflects that the sample perceived the importance in monitoring these leading symptoms by receiving the information about illness and self-management from health care professional that encouraged the patients to perceive the importance of monitoring psychotic symptoms such as preoccupying with one or two thoughts, which is severe symptom, and the symptoms of anxiety and agitation as significant leading to illness relapse. Nevertheless, the results showed that the samples might lack of knowledge in monitoring early symptoms of relapse in every aspect. Since the

early symptoms included in this study are significant symptoms that patients should know, recognize and be able to monitor and detect when they are at home, the finding of this study indicated that the mean score of the Schizophrenia and Psychotic Relapse Knowledge (Appendix G) after receiving program was significantly higher than that of before receiving program. Knowledge mean scores after receiving the program were 5.08 (SD=1.18) and before receiving the program were 8.53 (SD=.96) (Appendix G). These findings illustrated that the symptom self-management program can improve schizophrenia and psychotic relapse knowledge. This program helped patients to better understanding about all prodroamal symptoms and able to monitor early symptoms of relapse in all aspects.

The participants in the symptom self-management group learned schizophrenia and psychotic relapse such as pathology of schizophrenia, psychotic symptom, prevention of psychotic relapse, and schizophrenia care by having several activities such as group discussion, doing assignments, practicing some skills, and study a set of written schizophrenia materials at home while the participants in the control group received conventional nursing care. The results of this study are congruent with Anzai et al. (2002), which showed participations in the training group had more improving knowledge than the control group. Moreover, the participants in the symptom self-management group had a chance to discuss and share their experiences about schizophrenia care and psychotic symptoms with the researcher and other group members. Interaction within the group by sharing experiences and opinions can reduce social isolation so that patients will not feel so alone (Buccheri et al., 2004).

In combination with advice, social support will provide a person with more effective problem-solving techniques and stress reduction (Thoits, 1982 cited in

Gasemgitvatana, 1994). Discussion among the patients and between the patients and the researcher is encouraged in order to build relationships and help the patients have the courage to be open about their symptoms within group (Kanungparin, 2005). Promote self-esteem as having played a part in helping others (Buccheri et al., 2004). Moreover, enhance motivation in dealing with the illness and increase the patients' ability in using strategies for symptom self-management more effectively.

It was found that schizophrenic patients are able to monitor and manage with early psychotic symptoms themselves. The management program, which was developed from the concept of self-management proposed by Kanfer (1991) could promote the patients' capability for symptom self-management. The patients needed to receive information about the illness and the early symptom of psychotic so that they could understand the nature of the disease and the symptom. Group discussion also promoted better understanding about the symptoms. For example, a patient said, "I had experienced mood irritation and get angry easily because it was caused from the chemical substance in the brain. I sometimes could not control myself with the anger and made me to have problems with others. So the doctor gives me medications and I feel better." Another patient said "I felt distressed with my symptoms. I feel I am not the only one who had emotional problems after talking with the group. I've found that other people have the symptom, too." The patients also learned about their sufferings and the impacts of the symptom on their lives and spoke it out. The group shared the coping methods that they were used which other patients would also learn about effective strategies for symptom self-management, as well as the ineffective ones, from the real experiences. For example, a patient reported that he did the relaxation technique; effective breathing, and thinking positively when he had tension

with other and it worked. This process provided the patients with opportunities to learn how to manage with early symptoms. In addition, the patients felt that the symptoms were controllable and they could manage the symptoms.

On the other hand, some patients also shared experience of ineffective strategies. For instance, a patient reported, “I felt sad from having this disease and did not want to contact with other people” The patients’ learning from shared experiences helped in evaluating, making decision, and analyzing the method of a symptom self-management that was appropriate for them. Moreover, the opinion and experience shared in the group and mental support from the group induced motivation for a symptom self-management. In addition, the researcher made follow-up call every week during home practice thus the patients could inquire about the techniques of symptom self-management and could ask for advice when they had any questions. Apart from answering the patients’ questions, the researcher also provided support, encouraged, and gave the patients compliments when they succeeded in managing the symptoms or found the right technique for them. This process, according to Dodd et al. (2001), is an essential component in effective symptom management. It is important that the health care staff should facilitate the exchange knowledge and experience among patients with early symptoms thus the patients will clearly understand the symptoms, have increased knowledge, shared their feelings, and have chance to express their concerns and unhappiness to those who truly understand their problems. The finding is somewhat similar from that of Kanugpairn (2005). This is because the program used the study knowledge about schizophrenia, symptoms and treatment to the patients. The provision of knowledge about illness is an important background for the patients to review their symptom experience.

The patients also received more information about techniques for managing with early symptoms. Moreover, they received mental support and motivated to control the symptom from other patients, the family, and the outcome of effective management. Some patients also reported that their family members gave them mental support and helped them follow the program by reminding them about the exercises and encouraging them to do the exercise themselves. As a result, the patients gained confidence and tried to comply with the strategies for symptom self-management. In the evaluation of the program, some patients stated, “I have gained a lot of knowledge from my illness and the methods to cope with my symptoms. I will continue to use on using the techniques that I have learned”.

The results of the study are congruent with Shon and Park (2002) and Kopelowic et al. (2003) which concluded that training skills improve the patient’s ability to understand the disease, enhance with medication, monitoring and managing with early symptom of psychotic relapse, and support from others in medication compliance, increased improvement in level of functioning and decreased rate of rehospitalization. In addition, this finding supports the concepts proposed by Kanfer (1991) which stated that for effective symptom self-management the patients need to learn about the disease and to understand the symptom, to be able to monitor the early symptom and evaluate the change of the symptoms and plans for managing with the symptoms and receiving reinforcement from oneself and others for maintaining the appropriate symptom self-management behaviour. Moreover, the patients could use their home records to evaluate themselves and to share with other patients. The records indicated that the patients were able to monitor themselves, leading to the acceptance of the symptom and motivation for self-control. This supports the study

conducted by Brier and Strauss (1983) and Tait et al. (2002) which found that the patients tried to control their symptom, accept the symptom, and had motivation to control themselve if they were able to examine and assess themselves.

An example of the case, a man was 30 years old and had mental illness since he was 25 years old. He was admitted to the hospital 3 times. His symptoms showed that he did not want to contact with others and could not sleep at night. He felt worried about the breaking up with his girlfriend. He felt discouraged and sad. He tried to use the management strategies that he had learned from the SSMP to apply to his distress by thinking positive, using various relaxation techniques and talking to his sister. He felt better. He always took the medications following the physician's recommendation.

The mean scores early recognition of psychotic symptom of the symptom self-management group after receiving program was significantly higher than that of before receiving the program. Symptom Recognition mean scores between after receiving the program were 5.08 (SD=1.18) and before receiving the program were 8.53 (SD=.96). (Appendix G) These results indicated that patients with high level of symptom recognition are more likely to use symptom self-management. This finding is consistent with the results of the study conducted by Kennedy, Schepp and O'Connor (2000), which found that schizophrenic patients with high symptom recognition scores achieve high scores of symptom self-management. In addition, Baker (1995) found that patients' experience suffering from mental illness will induce the sense of fear relapse; as a consequence, the patients were motivated to monitor their behavioral and emotional changes while worsening symptoms. Therefore, the patients will be able to identify symptom stimuli and warning signs of relapse and

find methods for symptom controls and prevention of increasing senses of distress. This was supported by Kanfer' self-management model (1980, 1991) which proposed patients need a self-monitoring process to gather information for assessment and decision making about the management approach. The results of this study have shown that the participants could monitor and identify the symptoms thus making decision to choose various techniques for symptom self-management in order to reduce the severity of their illness.

For perceived efficacy of symptom self-management, most participants perceived the efficacy of distraction, followed by fighting back, attempt to feel better, isolation, help-seeking, and escape behavior (posttest mean=33.83, 16.83, 12.65, 11.43, 11 and 5.48, respectively). (Appendix G) The reported that the techniques often worked every time was the efficacy of taking oral medication. This finding is consistent with the results found by Kennedy, Schepp and O'Connor (2000), which indicated correlation between symptom self-management score and perceived efficacy of symptom self-management score ($r= .859$, $p \leq .01$) (Appendix G). It is also supports Kanfer's statement that positive response is a significant factor motivating a person to continue certain behavior (Kanfer, 1980). The highly perceived efficacy of a symptom self-management technique, therefore, is a motivation for schizophrenic patients to continuously use that technique.

The participants in the self-management group received skill training regarding managing with psychotic symptoms over 6 weeks. Besides knowledge improvement, compliance with medication skill, goal setting, stress management skill, and self-monitoring skill were improved by discussion, activities assignments, and practicing in groups and their homes. After attending group of each week, the

participants practiced their self-management at home. When the participants participated in the symptom self-management group in the following week, they shared their experiences about self-management practices with other members or asked questions that they had in the group. Furthermore, the researcher used a combination of helping techniques; teaching, support guidance, consult, and providing a suitable environment, using the circumstances of a good relationship between nurse and patients. These techniques would build trust and a good relationship between nurse and patients. All these methods stimulated the participants to learn about knowledge of self-care with schizophrenia and gave them internal motivation to change their behavior; therefore the means symptom self-management scores increased significantly after receiving the SSMP compared with before receiving the SSMP.

The symptom self-management in this study was designed to improve cognitive process and skill abilities. The program consisted of 4 phases: (1) the problem assessment and needs identification, (2) preparation for symptom self-management, (3) practice for symptoms self-management, (4) evaluation for symptom management. All phases helped the participants gain more understanding schizophrenia, psychotic relapse and management with early psychotic symptoms. In addition, the participants learned to practice symptom self-management both cognitive and practical skills in the group. Cognitive skills were taught such as increasing schizophrenia knowledge, and managing any problems systematically. Practical skills such as stress management and managing skills with persistent psychotic symptoms (i.g. hallucination, delusion) were practiced in groups and at their homes. The self-management was based on self-monitoring, self-evaluation, and self-reinforcement. In

addition, providing telephone call was beneficial for helping participants coping with schizophrenia and for encouraging internal motivation to take care of themselve. Holistic care for patients with schizophrenia was an important concern.

Responses of the participants to the Symptom Self-management Program (SSMP), the participants in the self-management group showed a positive response to the symptom self-management program. In general, the participants were enthusiastic about joining the program as evidenced by the fact that most of the participants attended all 6 sessions of the SSMP. The participants suggested that symptom self-management program like this should be held for other patients at the outpatient clinic of the hospital. It would be beneficial to all who can participate in the program and it should be continued in every year. One participant said “I have gained a lot of knowledge in schizophrenia because I feel relaxed and able to ask any questions that I am curious in my mind. The program provided enough time for discussion and taught me everything about schizophrenia care and prevention of psychotic relapse. Moreover, I felt more confident by sharing mental illness experience with others who have the same illness as me.”

Some participants shared the schizophrenic care knowledge which they had learnt from the program with their friends or their relatives. After the program finished, the participants wanted to continue meeting together to share their experiences about schizophrenic care and relapse prevention and encourage each other to maintain their schizophrenic care and symptom self-management.

These reflections showed that all the participants were satisfied with the symptom self-management program. The program enhanced a process of leaning for self-management with early symptoms of psychosis and increased their ability to take

care of themselves. Moreover, the group process established cohesion with other participant and the program provided an environment for sharing knowledge of symptom self-management experiences.

The SSMP demonstrated effects in reducing the characteristic and severity of early warning signs in outpatients diagnosed with schizophrenia. The SSMP provided knowledge and skill of symptom self-management concerning self-care management from the actual experience of schizophrenia, and the self-management for the psychotic symptoms. Moreover, the SSMP increased the patient's symptom self-management ability. These results are congruent with previous studies (Buccheri et al., 1997; Trygstag et al., 2002; Kanungparin et al., 2007). They stated that for effective symptom self-management strategies, the patients needed to learn about the disease and to understand the symptoms, including perceiving the symptom, being able to assess the severity of the symptoms and its threat to life, recognizing their emotional and behavioral response to the symptoms, practicing the skills to manage the symptoms, and evaluating the outcome. This finding illustrated that the symptom self-management program decreased psychotic symptom and prevented psychotic relapse in patients with chronic schizophrenia.

In conclusion, this program demonstrated the successful application of self-management strategies among patients with chronic schizophrenia. It showed its effectiveness in decresing psychotic symptoms, while increasing the knowledge of schizophrenia, enhancing of perceived in symptom recognition, compliancing with antipsychotic medication and managing with side effect of medication, and increasing of symptom self-management with prodromal symptoms. By assessing and monitoring their own symptoms and management strategies, the participants reported

that they felt more accepting their symptoms and more self-control. The research results in this study indicated that poor recognition and managing of warning signs was related to poorer treatment outcomes and greater use of extensive types of services. Improvement of recognition was related to better treatment outcomes and lower costs (Herz et al., 2008). The application of the self-management of the illness led to increase quality of life of chronic schizophrenic patients by getting a hold of their own lives, having a perspective to the future, and to learn to deal with themselves and their mental problems adequately (Meijel et al., 2003)

Theoretical aspects

Methodological issues

This part discussed the methodological issues related to randomization techniques, instrumentation issues, data analysis procedures, and generalizability of the study findings.

Randomization Techniques

The randomized controlled trial (RCT) is the most rigorous scientific method for evaluating a symptom self-management program. The design in this study is the most powerful method for testing hypotheses of cause and effect relationships between variables. Random assignment to the groups used is to secure the comparable group and is the most effective approach to control all possible sources of extraneous variables. The participants have an equal chance of being assigned to any group. Therefore, the dependent variables are assured of being an effect of the treatment, not of extraneous variables. However, any experimental studies involving human participants can not control all extraneous factors such as personality, life problems, pathology of the disease, and severity of illness. Therefore, randomization is no

absolute guarantee that the groups will be equal (Cook and Campbell, 1979; Polit and Hungler, 1999).

Although randomization was used to assign the participants to the symptom self-management and control groups in this study, inequality of the age of samples that participate in the experimental and the control group was found. Thus, it should be concerned in the future study.

Threat to validity may occur if the participants behave in particular manner because they are aware of their participation in a study. Therefore, double-blind techniques should be used. However, in nursing intervention research it is not feasible to use double-blind techniques because the nurse researcher must interact with the participants who participate into the program. Nursing interventions are more difficult to disguise than other treatments and perhaps it would be undesirable and unethical to attempt to disguise them. Therefore, an equal attention was concerned for the control group by the control group received a set of a symptom self-management booklet and medication box after the experimental group finished the program.

Instrumentation Issue

This study used the well trained research assistant to measure the BPRS and compared inter-rator with the researcher. The researcher assistant a psychiatric nursing, had experienced working in an out-patient ward, and understood the procedure and methods of the SSMP. Therefore, it could minimize the internal threat of the data collection.

Generalizability

The design of this study was more concerned about threats to internal validity by the selection of a heterogeneous sample; therefore, generalizability was

lessened. Empirical evidence suggested that individuals agreeing to be randomized may well be different from the average person seen in day-to-day care (Bowen and Hirsch, 1992; Bowen and Barnes, 1994). Employing additional, rigid entry criteria compounds this bias. For example, this study inclusion criteria stipulates that only fully informed people with DSM-IV schizophrenia, and no additional pathology are eligible, and those who recruited will represent an important, but small, minority of 'real world' patients. In this study, homogeneous samples were obtained by balancing between sufficient controls and real clinical practice situations. Therefore, the results of this study are generalizable only to multiple episode schizophrenic patients at the level of a community level. A community level in psychiatric hospitals in Thailand is likely to share characteristics such as geographies, size, health care services, characteristics of patients with chronic schizophrenia, and treatments. However, there are some points to be aware of when this symptom self-management program is implementing in other setting. The inclusion criteria were quite restrict: the continuous taking oral medication, the diagnoses for less than five years, lacking of pathology in brain and history of drug dependent or addict, the age between 18 to 60 year old, level of severity of psychotic symptom in Brief Psychotic Rating Scale scores have not more than 30, and functional literatcy in Thai. This symptom self-management program have limited application for patients who have limits on their functional ability or with severe of psychotic symptoms.

RESEARCH IMPLICATION AND RECOMMENDATIONS

The findings of this study have implications for nursing practice, nursing education, and national health policy. In addition, limitation and recommendations for future research are presented.

Implications for Nursing Practice

The symptom self-management program should be implemented at the outpatients department in psychiatric hospital in Thailand. The conventional nursing care was given to the control group while the experimental group received the symptom self-management program and conventional nursing care. The result showed psychotic symptoms and relapse in the experimental group were lower than the control group. This program should be run as part of schizophrenia educational services at outpatient departments. The program may be introduced to a hospital director. Staff nurses should be invited to participate in the program to raise their awareness of the importance of this program. It is important that nurses who deliver care to schizophrenic patients recognize the importance of symptom self-management for the patients, especially for those who take medication regularly. The education of schizophrenia was taught during the time of patients' admission in an inpatient and before they were discharged from the hospital. This kind of service may not be effective because the environments are different between inpatients and outpatients.

For effective application of this program, nurses need to encourage the patients to exchange their opinions and experience with each other, explore their experiences with early psychotic symptoms and symptom management strategies, and help them to self evaluate the outcomes of their own symptom self-management. In addition, nurses should also provide the patients with mental support to promote their self-esteem and maintenance of continuous practice.

They might have different problems of taking care of themselves and need different nursing interventions. Therefore, it might be beneficial to schizophrenic patients if the psychiatric hospital provides services on the day that they come to visit

with physicians and provide the symptom self-management to the patients who need it. The hospital should have a nurse responsible for schizophrenic care and they should be trained in a symptom self-management program. This model may help patients with multiple episode schizophrenia learn to manage their disease effectively. Moreover, the symptom self-management program responds to Health Care Reform Project policy which aims to provide quality services to all people equally, responding to people's needs, and encouraging people to participate in taking care of themselves.

Implication for Nursing Education

Nowadays trend of curriculum in nursing education should be developed for training advanced nurse practitioners. Therefore, the knowledge of symptom self-management should be a part of this curriculum to promote the patient's ability to respond of their own health. The early intervention is the most important for the patients with schizophrenia, especially training these persons to detect the prodromal symptoms and the process of psychotic relapse is essential for early clinical intervention. Furthermore, the caring for patients with chronic schizophrenia is more complicated, therefore they need more special intervention in order to prevent psychotic relapse.

Implication for National Health Policy

The results of this study show the effectiveness of symptom self-management in patients with chronic schizophrenia at the community level. Given these findings, the national health policy should be concerned with the following points:

1. According to the policy of the Ministy of Public Health manandated, the effective rehabilitation is essential to prevent the relapse and the complication of the

llness. Therefore, the nurse should cover activities which promote self-management of persons such as patients with schizophrenia and other chronic diseases as well as medical treatment. Promoting models of health care delivery which focus on patient self-management of their disease should be emphasized. Patients with chronic schizophrenia should have more choices to participate in schizophrenic self-management ability.

2. The psychiatric institute should have the network to share the material or resource regarding to schizophrenic knowledge to promote the quality of care with these patients.

3. The psychiatric institute should enhance the strength of ability of nurses to implement the symptom self-management in schizophrenia and other chronic disease.

RECOMMENDATIONS FOR FUTURE RESEARCH

1. This study should be replicated with extending the longer duration of follow up and long-term evaluation as 2-6 months. The long-term outcome should be conducted because schizophrenia runs a relapsing and remitting lifetime course for many people.

2. A symptom self-management program can be performed in various clinical settings.

3. The patients' satisfaction toward the program, the problem and the barriers of their participation in the program should be evaluated for further development and application of the program.

The limitations of this study are presented as following:

- This progrom can be used for the patients with chronic schizophrenia who are in remitted of psychotic symptoms (Brief Psychotic Scale Score <30).

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APPENDICES

APPENDIX A

THE EXPERTS AND VALIDATORS

The Name of Experts and Validators

1. **Associate Professor Dr.Yajai Sitthimongkol**

   Department of Mental Health and Psychiatric Nursing,

   Faculty of Nursing, Mahidol University

2. **Associate Professor Dr. Oraphun Lueboonthavatchai**

   Department of Mental Health and Psychiatric Nursing,

   Faculty of Nursing, Chulalongkorn University

3. **Mrs. Doungta Kulrattanayan**

   Professional Nurse, Department of Nursing,

   Somdet-Chaopraya Institute of Psychiatry

4. **Dr. Wipawee Phaokuntarakorn**

   Professional Nurse, Department of Nursing,

   Somdet-Chaopraya Institute of Psychiatry

5. **Associate Professor Dr. Surapol Veerasisri**

   Department of Psychiatry, Faculty of Medicine,

   Khoan Kane University

APPENDIX B

HUMAN SUBJECTS APPROVAL DOCUMENT

ที่ สธ ๐๘๐๘.๔/ร๕๕๕

สถาบันกัลยาณ์ราชนครินทร์ กรมสุขภาพจิต
๒๓ หมู่ ๘ ถนนพุทธมณฑลสาย ๔
เขตทวีวัฒนา กรุงเทพมหานคร ๑๐๑๗๐

๑๗ สิงหาคม ๒๕๕๒

เรื่อง สรุปผลการประชุมพิจารณาโครงการวิจัยที่ดำเนินการทดลองใช้เครื่องมือและเก็บรวบรวมข้อมูลวิจัยในสถาบันกัลยาณ์ราชนครินทร์

เรียน คณบดีคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

อ้างถึง หนังสือคณบดีคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ที่ ศธ ๐๕๑๒.๑๑/๑๔๗๙ ลงวันที่ ๒๑ กรกฎาคม ๒๕๕๒

ตามหนังสือที่อ้างถึง คณบดีคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ขอความอนุเคราะห์ให้นางสุดาพร สถิตยุทธการ นิสิตชั้นปริญญาดุษฎีบัณฑิต คณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ดำเนินการทดลองใช้เครื่องมือและเก็บรวบรวมข้อมูลวิจัย ในการทำวิทยานิพนธ์ เรื่อง "ผลของโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิตในผู้ป่วยที่เป็นโรคจิตเภทเรื้อรัง" ดังรายละเอียดที่แจ้งแล้ว นั้น

คณะกรรมการวิจัยของสถาบันกัลยาณ์ราชนครินทร์ ได้ดำเนินพิจารณาและเห็นควรให้นิสิตดังกล่าว สามารถดำเนินการทดลองใช้เครื่องมือและเก็บรวบรวมข้อมูลวิจัยจากกลุ่มตัวอย่างที่กำหนด

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายณัฏฐกร ประสาทศรี)
รองผู้อำนวยการฝ่ายบริหาร รักษาราชการแทน
ผู้อำนวยการสถาบันกัลยาณ์ราชนครินทร์

กลุ่มพัฒนาวิชาการและจัดการความรู้
โทรศัพท์ ๐-๒๘๘๙-๙๐๖๖ ต่อ ๑๕๓๗
โทรสาร ๐-๒๘๘๙-๙๐๘๓

APPENDIX C

CONSENT FORM

ข้อมูลสำหรับประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย
(Patient/Participant Information Sheet)

ชื่อโครงการวิจัย ผลของโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิตในผู้ที่เป็นโรคจิตเภทเรื้อรัง

ชื่อผู้วิจัย นางสุดาพร สถิตยุทธการ ตำแหน่ง อาจารย์ประจำ

สถานที่ปฏิบัติงาน คณะพยาบาลศาสตร์ วิทยาลัยมิชชัน 430 ถนนพิษณุโลก เขตดุสิต กรุงเทพฯ 103000 โทรศัพท์ที่ทำงาน 02- 2808243
โทรศัพท์เคลื่อนที่ 081-9135166 E-mail sudapornsth@hotmail.com

ที่ติดต่อได้สะดวกที่บ้าน 37 ซ. อารีย์ 3 ถนนพหลโยธิน แขวงสามเสนใน เขตพญาไท กรุงเทพฯ 10400 เบอร์โทรศัพท์ 02-2797698

ข้อมูลที่เกี่ยวกับการให้คำยินยอมในการวิจัยประกอบด้วย คำอธิบายดังต่อไปนี้

1. โครงการนี้เกี่ยวกับการศึกษาผลของโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิตในผู้ที่เป็นโรคจิตเภทเรื้อรัง มีเหตุผลในการศึกษาคือ โรคจิตเภทเป็นโรคทางจิตเวชที่พบมากที่สุด เป็นโรคเรื้อรังและกำเริบได้บ่อย การกำเริบหรือการกลับป่วยซ้ำจะทำให้ผู้ป่วยมีความบกพร่องในความสามารถมากขึ้น มีการพยากรณ์ของโรคไม่ดี เกิดความเสื่อมถอยของบุคลิกภาพและการรับรู้อย่างถาวร ปัญหาสำคัญของผู้ป่วยที่กลับมาป่วยซ้ำ คือ การไม่สามารถจัดการกับอาการเตือนทางจิตได้อย่างถูกต้องส่งผลให้การรักษาไม่ได้ผล ถ้าผู้ป่วยจิตเภทสามารถควบคุมอาการหรือจัดการกับอาการทางจิตที่เกิดขึ้นเมื่อแรกเริ่มได้ อาการกำเริบหรือการกลับเป็นซ้ำของโรคก็จะลดลง การพยาบาลผู้ป่วยจิตเภทได้มีการให้ความรู้เกี่ยวกับอาการเตือนของโรคจิตเภทอยู่ในส่วนหนึ่งของโปรแกรมการรักษา แต่ไม่มีการฝึกทักษะจัดการกับอาการเตือนซึ่งมีความแตกต่างเฉพาะในแต่ละบุคคล จึงทำให้ผู้ป่วยจิตเภทยังขาดความเชื่อมั่นในความรู้ความสามารถของตนเองที่จะจัดการกับอาการเตือนของตนเองได้ และยังไม่พบการศึกษาเกี่ยวกับโปรแกรมการจัดการกับอาการเตือนต่อการกำเริบของอาการทางจิตโดยตรง ดังนั้นในการศึกษานี้ผู้วิจัยจึงได้พัฒนาโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิตในผู้ที่เป็นโรคจิต

เภทเรื้อรัง ซึ่งคาดว่าจะช่วยท่านให้สามารถระบุอาการเตือนของตนเองได้และสามารถจัดการกับอาการได้ด้วยตนเองอย่างเหมาะสมเป็นการป้องกันการกำเริบของอาการทางจิต

2. วัตถุประสงค์ของการวิจัย เพื่อเปรียบเทียบการกำเริบของอาการทางจิตของท่านก่อนและหลังได้รับโปรแกรมการจัดการกับอาการด้วยตนเองและเปรียบเทียบการกำเริบของอาการทางจิตของท่านระหว่างกลุ่มที่ได้รับโปรแกรมการจัดการกับอาการด้วยตนเองและกลุ่มที่ได้รับการพยาบาลตามปกติ

3. เป็นการวิจัยแบบทดลอง ที่ผู้วิจัยคาดว่าจะไม่มีความเสี่ยงใดๆเกิดขึ้นกับผู้เข้าร่วมโปรแกรม คำตอบและข้อมูลทุกอย่างจากการดำเนินโปรแกรมทุกอย่างจะถือเป็นความลับ

4. รายละเอียดและขั้นตอนที่ผู้เข้าร่วมโปรแกรมจะได้รับการปฏิบัติในงานวิจัยนี้

4.1 ขออนุญาตผู้อำนวยการฯ ในการดูเวชระเบียนผู้ป่วย ที่มารับการรักษาแผนกผู้ป่วยนอก สถาบันกัลยาณ์ราชนครินทร์ เพื่อคัดกรองกลุ่มตัวอย่างและขออนุญาตท่านในการทดสอบ ซึ่งมีคุณสมบัติดังนี้

1. ได้รับการวินิจฉัยจากแพทย์ว่าเป็นโรคจิตเภท
2. ได้รับยารักษาอาการทางจิตครบตามแผนการรักษาในช่วง 1 เดือนที่ผ่านมา
3. อายุระหว่าง 20-59 ปี
4. ได้ผ่านการทดสอบการรับรู้อาการเตือนทางจิตและการทดสอบแบบประเมินอาการทางจิต
5. สื่อสารภาษาไทยเข้าใจ พูดคุยโต้ตอบและอ่านออกเขียนได้

4.2 สุ่มกลุ่มตัวอย่างที่มารับบริการแบบผู้ป่วยนอกทั้งเพศชายและเพศหญิง จำนวน 80 คน แบ่งเป็น 2 กลุ่ม กลุ่มละ 40 คน ท่านเป็นผู้ที่ได้รับเชิญในการศึกษาครั้งนี้ และอาจถูกจัดให้อยู่ในกลุ่มที่ 1 หรือ กลุ่มที่ 2 แต่ละคนใช้เวลาในการเข้าร่วมโปรแกรม 6 สัปดาห์

กลุ่มที่ 1 ท่านจะได้รับการพยาบาลตามปกติเมื่อมารับบริการที่แผนกผู้ป่วยนอก สถาบันกัลยาณ์ราชนครินทร์ ได้แก่ การคัดกรองผู้ป่วยเพื่อมารับการตรวจจากจิตแพทย์ การรับยาและการให้คำแนะนำในการรับประทานยา การนัดหมายเพื่อมาพบแพทย์ครั้งต่อไป และการให้ความรู้เรื่องโรคจิตเวชทุกวันอังคารและวันพฤหัสบดี จะได้รับการประเมินการรับรู้อาการเตือนโดยตอบแบบสอบถามจำนวน 34 ข้อ ใช้เวลา 35 นาที คือ ก่อนและหลังเข้าร่วมโปรแกรมโดยผู้วิจัยเป็นผู้อ่านแบบสอบถามให้ผู้ป่วยตอบ

กลุ่มที่ 2 ท่านจะได้รับการพยาบาลตามปกติแต่เพิ่มกิจกรรมตามโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิต จากผู้วิจัย ณ แผนกผู้ป่วยนอก สถาบันกัลยาณ์ราชนครินทร์ จำนวน 6 ครั้ง เป็นเวลา 6 สัปดาห์ ดังรายละเอียดกิจกรรมดังนี้

ก่อนเข้าร่วมวิจัย ประเมินอาการทางจิต โดยตอบแบบสอบถามจำนวน 18 ข้อ ใช้เวลา 30 นาที

สัปดาห์ที่ 1 การสร้างสัมพันธภาพ การประเมินปัญหาและความต้องการในการช่วยเหลือในอาการทางจิตและโรคที่เป็นอยู่ การประเมินความรู้และการพัฒนาความรู้เรื่องโรคจิตเภทและการป่วยซ้ำ การจัดการด้วยตนเองและความพร้อมในการจัดการด้วยตนเอง โรคจิตเภทการรักษาที่ได้รับ พฤติกรรมการรับประทานยารักษา การกำเริบของโรคจิตเภทและการป้องกันความเครียด และการจัดการ อาการเตือนทางจิต สาเหตุและผลกระทบของอาการเตือนทางจิต และการตอบสนองต่ออาการเตือนทางจิตที่เกิดขึ้น รวมทั้งประสบการณ์ในการดูแลตนเองเกี่ยวกับอาการทางจิตที่เกิดขึ้นเพื่อลดอาการเตือนทางจิต และทำแบบประเมินความรู้เรื่องการกลับเป็นซ้ำและการป้องกันการกลับเป็นซ้ำของโรคจิตเภท10 ข้อ รวมเวลาที่ใช้เวลาในครั้งนี้ 60 นาที

สัปดาห์ที่ 2 การประเมินและพัฒนาความรู้เรื่องความเครียดและการจัดการกับความเครียด การประเมินและการส่งเสริมการรับประทานยารักษาอาการทางจิต ทำแบบประเมินการรับรู้อาการเตือน จำนวน 34 ข้อ รวมเวลาที่ใช้เวลาในครั้งนี้ 90 นาที

สัปดาห์ที่ 3 การประเมินและพัฒนาความรู้เรื่องอาการเตือนและการจัดการกับอาการเตือน ประเมินความสามารถในการจัดการกับอาการเตือนของผู้ป่วยจิตเภท 38 ข้อ การใช้เวลา 90 นาที

สัปดาห์ที่ 4 การฝึกลงมือปฏิบัติและการให้แรงเสริมที่บ้าน ครั้งที่ 1

สัปดาห์ที่ 5 การฝึกลงมือปฏิบัติและการให้แรงเสริมที่บ้าน ครั้งที่ 2

สัปดาห์ที่ 6 การประเมินผลโปรแกรม โดยประเมินความรู้เรื่องการกลับเป็นซ้ำขและการป้องกันการกลับเป็นซ้ำของโรคจิตเภท 10 ข้อ ใช้เวลา 10 นาที ประเมินความสามารถในการจัดการกับอาการเตือนของผู้ป่วยจิตเภท 38 ข้อ ให้เวลา 40 นาที และประเมินการรับรู้อาการเตือน โดยตอบแบบสอบถาม จำนวน 34 ข้อ ใช้เวลา 35 นาที

หลังสิ้นสุดการวิจัย ประมาณ 1 เดือน ผู้เข้าร่วมวิจัยรับการทดสอบแบบประเมินอาการทางจิต โดยผู้ช่วยวิจัยเป็นผู้ประเมิน

5. การวิจัยนี้จะดำเนินโปรแกรมครั้งที่ 1, 2, และ 3 สถานที่ คือ ห้องกิจกรรม แผนกผู้ป่วยนอก สัปดาห์ละ 1 ครั้ง จำนวน 3 สัปดาห์ โดยแบ่งกลุ่มผู้ป่วยออกเป็นทั้งหมด 3 กลุ่ม กลุ่มละ 10 คน ซึ่งกิจกรรมจะมีในวัน จันทร์ พุธ หรือศุกร์ โดยผู้เข้าร่วมโปรแกรมสามารถแสดงความจำนงว่าจะเข้ากลุ่มในวันใด ซึ่งถ้าผู้เข้าร่วมโปรแกรมไม่สะดวก สามารถถอนการเข้าร่วมวิจัยได้ทันที สำหรับครั้งที่ 4 และ 5 ผู้เข้าร่วมโปรแกรมจะฝึกลงมือปฏิบัติและให้แรงเสริมอยู่ที่บ้าน ครั้งที่ 6 ผู้เข้าร่วมโปรแกรมจะมาพบผู้วิจัยที่แผนกผู้ป่วยนอก สถาบันฯ เพื่อประเมินผลการปฏิบัติ และเมื่อ

สิ้นสุดโปรแกรมแล้ว ประมาณ 1 เดือน ผู้เข้าร่วมโปรแกรมจะมาพบกับผู้วิจัยที่แผนกผู้ป่วยนอกสถาบันฯอีกครั้ง เพื่อประเมินและติดตามผลอาการทางจิต

6. ผู้เข้าร่วมโปรแกรมจะเข้าร่วมโปรแกรมได้ต้องได้รับรู้ข้อมูลโครงการวิจัย วิธีการดำเนินการ ผลดีและผลเสียที่จะเกิดขึ้นและเซ็นใบยินยอม พร้อมทั้งต้องให้ญาติมีส่วนร่วมในการตัดสินใจ โดยญาติต้องรับรู้ดังกล่าวและเซ็นใบยินยอมร่วมกับผู้ประสงค์เข้าร่วมโปรแกรมด้วย

7. กรณีผู้เข้าร่วมโปรแกรมมีอาการมากขึ้น ท่านจะได้รับการส่งต่อไปยังผู้มีส่วนในการดูแลรักษาทันที

8. ผู้เข้าร่วมโปรแกรมสามารถถอนตัวระหว่างการดำเนินโปรแกรมได้ทันที โดยไม่มีผลกระทบต่อการรักษาพยาบาลที่ผู้ป่วยได้รับอยู่

9. ผู้เข้าร่วมโปรแกรมจะได้รับค่าเดินทางในการเข้าร่วมกิจกรรม ท่านละ 120 บาท/ครั้ง ผู้ที่ได้รับการคัดกรองแต่ไม่ได้เป็นกลุ่มตัวอย่างจะได้รับค่าเดินทางท่านละ 120 บาท และผู้เข้าร่วมโปรแกรมที่ต้องมาตามนัดที่นอกเหนือจากการให้บริการของสถาบันฯ จะได้รับค่าเดินทางท่านละ 120 บาท /ครั้ง

10. หากผู้เข้าร่วมโปรแกรมมีข้อสงสัยให้สอบถามข้อมูลเพิ่มเติมได้ ในกรณีที่มีปัญหาสามารถติดต่อกับผู้วิจัยคือ นางสุดาพร สถิตยุทธการ ได้ตลอดเวลาทางโทรศัพท์หมายเลข 081-9135166 และหากผู้วิจัยมีข้อมูลเพิ่มเติมที่เป็นประโยชน์และโทษเกี่ยวกับโปรแกรมนี้ ผู้วิจัยจะแจ้งให้ผู้เข้าร่วมโปรแกรมทราบอย่างรวดเร็ว

11. ข้อมูลที่อาจนำไปสู่การเปิดเผยของผู้มีส่วนร่วมในการวิจัยจะได้รับการปกปิด ยกเว้นการยินยอมจากผู้เข้าร่วมโปรแกรมและญาติ

12. ผลการวิจัยจะนำเสนอในภาพรวม และนำมาใช้ตามวัตถุประสงค์ของการวิจัยเท่านั้น ส่วนชื่อและที่อยู่ของผู้เข้าร่วมโปรแกรมจะได้รับการปกปิดอยู่เสมอ การเปิดเผยชื่อและที่อยู่ของประชากรตัวอย่างหรือผู้เข้าร่วมโปรแกรมนั้นจะกระทำเฉพาะกรณีจำเป็นด้วยเหตุผลทางกฎหมายเท่านั้น

ขอขอบคุณในความร่วมมือของท่านมา ณ ที่นี้

(นางสุดาพร สถิตยุทธการ)

ผู้วิจัย

ใบหนังสือยินยอมของประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย

(Informed Consent Form)

เลขที่ประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย.…….....

ข้าพเจ้าได้รับทราบจากผู้วิจัย ชื่อ นางสุดาพร สถิตยุทธการ ที่อยู่ 37 ซอยอารีย์ 3 ถนนพหลโยธิน เขตพญาไท กรุงเทพมหานคร 14000 ทำโครงการวิจัยเรื่อง ผลของโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิตในผู้ที่เป็นโรคจิตเภทเรื้อรัง ซึ่งข้าพเจ้าได้ลงนามด้านท้ายของหนังสือนี้ถึงวัตถุประสงค์ ลักษณะ และแนวทางการศึกษาวิจัย การเข้าถึงเวชระเบียน รวมทั้งทราบถึงผลดี ผลข้างเคียงและความเสี่ยงที่อาจเกิดขึ้น

ข้าพเจ้าได้ซักถาม ทำความเข้าใจเกี่ยวกับขั้นตอนการปฏิบัติของการศึกษาดังกล่าวนี้เป็นที่เรียบร้อยแล้ว

ข้าพเจ้ายินดีให้ผู้วิจัยเข้าถึงเวชระเบียนและยินดีเข้าร่วมการศึกษาวิจัยครั้งนี้ ด้วยความสมัครใจและอาจบอกเลิกการจากการเข้าร่วมการศึกษานี้เมื่อใดก็ได้ โดยไม่จำเป็นต้องแจ้งเหตุผล ซึ่งการบอกเลิกการเข้าร่วมการวิจัยนี้จะไม่มีผลต่อการรักษาหรือการให้บริการของทางสถาบันฯ พร้อมทั้งยอมรับผลข้างเคียงและความเสี่ยงที่อาจเกิดขึ้น โดยจะปฏิบัติตัวตามคำแนะนำของผู้ทำการวิจัย

ผู้วิจัยรับรองว่าจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะในรูปที่เป็นสรุปผลการวิจัย หรือการเปิดเผยข้อมูลต่อผู้มีหน้าที่ที่เกี่ยวข้องกับการสนับสนุนและกำกับดูแลการวิจัย

ข้าพเจ้ายินดีให้ข้อมูลของข้าพเจ้าแก่ผู้วิจัย เพื่อเป็นประโยชน์ในการศึกษาวิจัยครั้งนี้ สุดท้ายนี้ ข้าพเจ้ายินดีเข้าร่วมการศึกษานี้ ภายใต้เงื่อนไขที่ได้ระบุไว้แล้วในข้างต้น

……..……	(……..……)
สถานที่/วันที่	ลงนามประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย
……..……	(……..……)
สถานที่/วันที่	ลงนามญาติผู้มีส่วนร่วมในการวิจัย
……..……	(นางสุดาพร สถิตยุทธการ)
สถานที่/วันที่	ลงนามผู้วิจัยหลัก
……..……	(……..……)
สถานที่/วันที่	พยาน

APPENDIX D

INSTRUMNETS FOR DATA COLLECTION

เลขที่ผู้ถูกสัมภาษณ์.....

แบบสอบถามข้อมูลทั่วไปของผู้ป่วยจิตเภท

คำชี้แจง โปรดเติมข้อความลงในช่องว่าง และทำเครื่องหมาย √ ลงหน้าข้อความที่ตรงกับความเป็นจริงของท่านเพียงข้อเดียวในแต่ละข้อ และเติมคำลงในช่องว่างให้ตรงกับข้อมูลที่เป็นจริง

1. เพศ ☐ หญิง ☐ ชาย

2. อายุ.....ปี

3. สถานภาพสมรส ☐ โสด ☐ คู่ ☐ หม้าย
   ☐ หย่า ☐ แยกกันอยู่ ☐ อื่นๆ ระบุ.....

4. ระดับการศึกษา ☐ ไม่ได้เรียน ☐ อนุปริญญา/ปวส.
   ☐ ประถมศึกษา ☐ ปริญญาตรี
   ☐ มัธยมศึกษาต้น ☐ สูงกว่าปริญญาตรี
   ☐ มัธยมศึกษาปลาย/ปวช.

5. อาชีพ ☐ รับราชการ ☐ รัฐวิสาหกิจ
   ☐ พนักงานบริษัท ☐ เกษตรกรรม
   ☐ ค้าขาย ☐ รับจ้าง
   ☐ ว่างงาน ☐ อื่นๆ ระบุ.....

6. จำนวนครั้งของการเข้ารับการรักษาตัวในโรงพยาบาลด้วยโรคทางจิตเวช.....ครั้ง

7. ระยะเวลาการเจ็บป่วยด้วยโรคจิตเวช.....ปี

แบบประเมินอาการรุนแรงทางจิต

<u>คำชี้แจง</u> แบบสอบถามชุดนี้ต้องการประเมินความรุนแรงของอาการทางจิตของผู้ป่วยจิตเภท ผู้วิจัยเป็นผู้ประเมินโดยการสัมภาษณ์และการสังเกตอาการของผู้ป่วยตามแบบประเมิน แล้วทำเครื่องหมาย ✓ลงในช่องตามระดับความรุนแรงของแต่ละอาการ โดยมีเกณฑ์การประเมินดังนี้

1 = ไม่มีอาการ 2 = มีอาการเล็กน้อยเป็นบางครั้ง 3 = มีอาการเล็กน้อย
4 = อาการปานกลาง 5 = อาการค่อนข้างรุนแรง 6 = อาการรุนแรง
7 = อาการรุนแรงมาก

อาการและอาการแสดง	ระดับคะแนน						
	1	2	3	4	5	6	7
1. Somatic concern (Rate ตามความรู้สึกของผู้ป่วย) รู้สึกวิตกกังวล เกี่ยวกับสุขภาพร่างกาย หรือโรคทางกายหรือไม่							
2. Anxiety (Rate ตามความรู้สึกของผู้ป่วย) ขณะนี้รู้สึกวิตกกังวลหรือกลัวอะไรบ้างไหม รู้สึกกังวลหรือกลัวต่อสิ่งใดในอนาคต หรือไม่							
3……							
……							
17. ……							
18.Disorientation (Rateตามความรู้สึกของผู้ป่วย) สับสนต่อเวลา สถานที่ และบุคคล							

คู่มือการใช้แบบประเมินอาการทางจิตฉบับย่อ

(Brief Psychiatric Rating Scale, BPRS)

คำชี้แจง แบบประเมินฉบับนี้จัดทำขึ้นประเมินอาการทางจิต 18 อาการ (ข้อ 1-18) ในระหว่าง 1 สัปดาห์ที่ผ่านมา

ข้อที่มีเครื่องหมาย *(3,4,6,7,13,14,16,17 และ18) เป็นการประเมินโดยการสังเกตขณะการสัมภาษณ์ ส่วนข้อที่เหลือ (1,2,5,8,9,10,11,12 และ15) ประเมินจากคำพูด ของผู้ที่ถูกประเมินเกี่ยวกับความรู้สึกนึกคิดส่วนบุคคลที่เกิดขึ้น

1. ความวิตกกังวลเกี่ยวกับอาการทางกาย (Somatic concern)

หมายถึงการบ่นว่าตนมีอาการทางกายต่าง ๆ หรือเชื่อว่าตนมีการเจ็บป่วยหรือมีความผิดปกติทางกาย ซึ่งอาจเป็นได้ตั้งแต่มีความรู้สึกอย่างคลุมเครือ ไม่ชัดเจนว่าเจ็บป่วย จนถึงขั้นมีอาการหลงผิดอย่างชัดเจนว่าตนมีโรคทางกายที่ร้ายแรง ซึ่งในความเป็นจริงอาจจะตรวจพบหรือไม่พบความผิดปกติดังกล่าวก็ตาม

แนวการสัมภาษณ์ : ในระหว่าง 1 สัปดาห์ที่ผ่านมา

1.1 สุขภาพร่างกายของคุณเป็นอย่างไรบ้าง? (มีอะไรที่ผิดปกติ? มีความรุนแรงมากน้อยแค่ไหน) ?

1.2 คุณรู้สึกวิตกกังวลมากน้อยแค่ไหนกับสุขภาพร่างกายของคุณ (หรือกับอาการที่เกิดขึ้น) ?

พื้นฐานที่ใช้ในการให้คะแนน เนื้อหาความคิดที่แสดงออกมาเป็นคำพูด อารมณ์ และพฤติกรรมระหว่างการสัมภาษณ์ หากผู้ถูกประเมินกล่าวว่าตนมีความเจ็บป่วยทางกาย แต่ไม่แสดงความวิตกกังวลกับความเจ็บป่วยดังกล่าว ก็ไม่ถือว่ามีความผิดปกติในข้อนี้

คะแนน	เกณฑ์การตัดสิน
1 = ไม่มีอาการ	ไม่มีอาการตามคำจำกัดความ
2 = มีอาการขั้นต่ำสุด	สงสัยว่าอาจมีความผิดปกติหรืออาจมีอาการบ้างแต่ยังถือว่าอยู่ในเกณฑ์ปกติ
3 = มีอาการเล็กน้อย	กังวลเกี่ยวกับสุขภาพหรือปัญหาทางกายอย่างชัดเจน แสดงออกโดยการถามหรือขอคำยืนยันเพื่อสร้างความมั่นใจเป็นครั้งคราว
4 = มีอาการปานกลาง	บ่นว่าสุขภาพไม่ดี หรือมีความผิดปกติในร่างกาย แต่ไม่ถึงขั้นมีความหลงผิดและสามารถลดความวิตกกังวลที่มีมากเกินไปเมื่ออธิบายและให้ความมั่นใจ

คะแนน	เกณฑ์การตัดสิน
5 = มีอาการค่อนข้างรุนแรง	บ่นว่ามีอาการเจ็บป่วย หรือมีความผิดปกติทางกายในด้านต่างๆ หลายด้าน หรือบ่นอยู่บ่อยๆ หรืออาจมีอาการหลงผิดเกี่ยวกับเรื่องเหล่านี้อย่างชัดเจนหนึ่งหรือสองเรื่อง แต่ไม่หมกมุ่นกับความคิดดังกล่าว
6 = มีอาการรุนแรง	หมกมุ่นกับอาการหลงผิดที่ชัดเจนเรื่องหรือสองเรื่องว่าตนมีโรคหรือมีความผิดปกติทางกาย แต่ยังไม่ถึงกับทุ่มเทจิตใจไปในเรื่องนั้นทั้งหมด และผู้สัมภาษณ์ยังพอจะพยายามดึงความคิดของผู้ถูกประเมินไปในทางอื่นได้บ้าง
7 = มีอาการรุนแรงมาก	มีอาการหลงผิดทางกายหลายอย่างที่ผู้ถูกประเมินพูดถึงบ่อยๆ หรือมีอาการหลงผิดทางกายสองหรือสามอย่างที่ผู้ถูกประเมินคิดว่าเป็นเรื่องร้ายแรงมาก และมีผลครอบงำอารมณ์และความคิดของผู้ถูกประเมินโดยสิ้นเชิง
8 = ไม่สามารถประเมินได้	เนื่องจากมีความผิดปกติรุนแรงของกระบวนการคิด, ไม่ให้ความร่วมมือในการสัมภาษณ์ (หลบเลี่ยงหรือต่อต้าน) หรือไม่ได้ประเมิน

***18. อาการไม่รู้เวลา สถานที่และบุคคล (Disorientation)**

คือ การขาดการรับรู้ถึงความสัมพันธ์หรือความเชื่อมโยงกับสิ่งแวดล้อมรอบตัวคือ เวลา สถานที่และบุคคล ซึ่งอาจเกิดจากอาการสับสนหรือจากอาการแยกตัวอย่างหนึ่งอย่างใด

แนวการสัมภาษณ์ : วันนี้เป็นวันที่เท่าไหร่? เดือนอะไร? ปีพ.ศ.อะไร? ขณะนี้เราอยู่ที่ไหน? คุณชื่ออะไร?

พื้นฐานที่ใช้ในการให้คะแนน การตอบคำถามเกี่ยวกับการรับรู้เวลา สถานที่ และบุคคลในการสัมภาษณ์

คะแนน	เกณฑ์การตัดสิน
1 = ไม่มีอาการ	ไม่มีอาการตามคำจำกัดความ
2 = มีอาการขั้นต่ำสุด	สงสัยว่าอาจมีความผิดปกติหรืออาจมีอาการบ้างแต่ยังถือว่าอยู่ในเกณฑ์ปกติ
3 = มีอาการเล็กน้อย	การรับรู้เวลา สถานที่ และบุคคลโดยทั่วไปอยู่ในเกณฑ์ปกติ แต่มีปัญหาในส่วนที่เฉพาะเจาะจงมากขึ้น เช่นรู้ว่าอยู่ที่ไหน แต่บอกชื่อถนนไม่ได้ บอกชื่อบุคลากรได้แต่ไม่รู้ว่ามีหน้าที่อะไร บอกเดือนถูกแต่บอกผิดว่าเป็นวันไหนของสัปดาห์ โดยสับสนกับวันที่อยู่ติดๆ กัน บอกวันที่ผิดเกิน 2 วัน อาจจะมีความสนใจแคบลง ซึ่งเห็นได้จากการคุ้นเคยเฉพาะกับสิ่งแวดล้อมใกล้ตัว แต่ไม่สนใจสิ่งที่อยู่ไกลตัวออกไป เช่นบอกชื่อเจ้าหน้าที่ได้ แต่บอกชื่อผู้ว่าฯ หรือนายกฯ ไม่ได้ หรือตอบว่าขณะนี้เป็นปี พ.ศ.2549 แต่ความจริงเป็นพ.ศ.2550
4 = มีอาการปานกลาง	บอกเวลา สถานที่และบุคคลได้ถูกต้องเพียงบางส่วน เช่นรู้ว่าอยู่ที่โรงพยาบาลแต่บอกชื่อไม่ถูก รู้ว่าบ้านอยู่จังหวัดอะไร แต่บอกอำเภอหรือเขตไม่ได้ รู้จักผู้รักษาหลัก แต่ไม่รู้จักชื่อเจ้าหน้าที่คนอื่นๆ ที่ร่วมดูแล บอกปีหรือฤดูได้แต่ไม่แน่ใจว่าเป็นเดือนอะไร
5 = มีอาการค่อนข้างรุนแรง	มีปัญหาค่อนข้างมากในการบอกเวลา สถานที่และบุคคล ผู้ป่วยรู้เพียงเลื่อนลางว่าตนอยู่ที่ไหน รู้สึกไม่คุ้นเคยกับคนรอบตัวส่วนใหญ่ อาจบอกปีได้ แต่บอกไม่ได้ว่าเป็นเดือนอะไร วันใดในสัปดาห์ หรือแม้แต่เป็นฤดูใด แสดงความไม่แน่ใจว่า ตนเองกำลังอยู่ที่ไหน
6 = มีอาการรุนแรง	มีปัญหาในการบอกเวลา สถานที่และบุคคลมาก เช่น ไม่ทราบเลยว่าตนเองกำลังอยู่ที่ไหน บอกปีผิดเกิน 1 ปี เช่นตอบว่าขณะนี้เป็นปี พ.ศ. 2535 แต่ความจริงเป็นพ.ศ.2550 บอกชื่อคนในชีวิตปัจจุบันได้เพียง 1-2 คน
7 = มีอาการรุนแรงมาก	ผู้ป่วยไม่รู้เวลา สถานที่และบุคคลเลย มีอาการสับสนอย่างชัดเจน ไม่รู้เลยว่าตนอยู่ที่ไหน เป็นปีอะไร และจำไม่ได้แม้แต่คนใกล้ชิดเช่น บิดา มารดา สามี ภรรยา หรือผู้รักษาหลัก หรือไม่ทราบว่าตนเองเป็นใคร
8 = ไม่สามารถประเมินได้	เนื่องจากมีความผิดปกติรุนแรงของกระบวนการคิด, ไม่ให้ความร่วมมือในการสัมภาษณ์ (หลบเลี่ยงหรือต่อต้าน) หรือไม่ได้ประเมิน

APPENDIX E

SELF-ASSESSMENT OF SYMPTOM MANAGEMENT FORM

Self-assessment of symptom management form

ประกอบด้วย 3 ส่วน

<u>ส่วนที่ 1</u> แบบวัดพฤติกรรมการควบคุมอาการโดยทั่วไป

ข้อความ	วันที่		.....		วันที่	
	ทำ	ไม่ทำ	ทำ	ไม่ทำ	ทำ	ไม่ทำ
1. ฉันพยายามอดทนอยู่ร่วมกับ อาการเหล่านั้นให้ได้ 2. ฉันพูดคุยกับสมาชิกในครอบครัว 3. …… 4. ……... 5. ……... 6. ฉันรับประทานยาอย่างต่อเนื่องและสม่ำเสมอ						

<u>ส่วนที่ 2</u> แบบวัดความรู้สึกของผู้ป่วยเกี่ยวกับอาการของโรค

ข้อความ	วันที่		.....		วันที่	
	ทำ	ไม่ทำ	ทำ	ไม่ทำ	ทำ	ไม่ทำ
1. ฉันนอนไม่หลับเพราะคิดมากหรือกังวลใจ 2. ฉันรู้สึกหงุดหงิด รำคาญใจ 3. ……... 4. ……... 5. ……... 6. ฉันรู้สึกหงุดหงิดง่ายหรือโกรธง่าย						

<u>ส่วนที่ 3</u> แบบวัดพฤติกรรมการจัดการกับอาการที่เกิดขึ้นจริง

ข้อความ	วันที่		.....		วันที่	
	ทำ	ไม่ทำ	ทำ	ไม่ทำ	ทำ	ไม่ทำ
เมื่อฉันเกิดอาการหงุดหงิด หรือรู้สึกไม่พอใจต่อผู้คนรอบข้าง หรือขาดความสนใจต่อสิ่งต่างๆรอบตัว รู้สึกกลัวหรือรู้สึกเศร้า 1. ฉันหลีกเลี่ยงสถานการณ์ที่กระตุ้นให้มีอาการมากขึ้น 2. ฉันออกกำลังกาย 3. ฉันขี่จักรยานหรือขับรถเล่น 4. ฉันเขียนจดหมายหรือบันทึกประจำวัน 5. ฉันพยายามคิดในทางบวก 8.						
เมื่อฉันเกิดอาการอยากรับประทานอาหารน้อยลง หรือนอนไม่หลับ หรือแยกตัวออกจากสังคม 1. ฉันไปเที่ยวสถานที่ธรรมชาติต่างๆ เช่นป่า ภูเขา ทะเล หรือสวนสาธารณะ เป็นต้น 2. ฉันพูดคุยกับตนเอง 3. ฉันอ่านหนังสือหรือวารสาร/นิตยสารต่างๆ 4. ฉันให้ความสนใจหรือใส่ใจกับงานอดิเรกต่างๆ 5. ฉันออกกำลังกาย 8.....						
เมื่อฉันเกิดอาการสมาธิแย่ลง มีปัญหาเรื่องความจำหมกหมุ่นกับบางเรื่องมากผิดปกติ 1. ฉันดูทีวี 2. ฉันพูดคุยกับเพื่อนๆของฉัน 3. ฉันพูดคุยกับสมาชิกในครอบครัว 4. ฉันทำสมาธิหรือใช้วิธีการผ่อนคลายความเครียด 5. ฉันออกกำลังกาย 8.						

ข้อความ	วันที่.....		.....		วันที่.....	
	ทำ	ไม่ทำ	ทำ	ไม่ทำ	ทำ	ไม่ทำ
เมื่อฉันเกิดอาการหูแว่ว พูดคนเดียว หวาดระแวง หรือมีความรู้สึกว่าตนถูกควบคุมอยู่ 1.ฉันไปรับบริการที่คลินิกหรือหน่วยบริการสุขภาพจิต 2. ฉันไม่สนใจหรือใส่ใจกับความคิดที่มารบกวน 3. ฉันตะโกนโต้ตอบกับเสียงหูแว่ว 4. ฉันทำสมาธิหรือใช้วิธีการผ่อนคลายความเครียด 5. ฉันรับประทานยาตามที่แพทย์ให้มาเมื่อมีอาการผิดปกติขึ้น …….. 8. …….						

APPENDIX F

INSTRUMENTS FOR INTERVENTION AND

INSTRMENT S FOR MONITORING THE INTERVENTION

INSTRNMENTS FOR INTERVENTION

โปรแกรมบำบัดสำหรับพยาบาล เรื่องการจัดการกับอาการด้วยตนเองของผู้ป่วยจิตเภท

(Nursing Intervention of the Symptom Self-Management Program for Multiple Episode Schizophrenic Patients)

คู่มือพยาบาลจิตเวช

โดย

นางสุดาพร สถิตยุทธการ

รศ.ดร. จินตนา ยูนิพันธุ์

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ปี พ.ศ. 2552

คำนำ

โรคจิตเภท เป็นโรคเรื้อรังที่มีความผิดปกติของความคิดร่วมกับความผิดปกติทางอารมณ์ การรับรู้ และมีความบกพร่องทางหน้าที่การงานและสังคม และพบว่าเป็นโรคทางจิตเวชที่พบมากที่สุด ซึ่งโรคนี้จัดเป็นโรคจิตเวชชนิดรุนแรงเนื่องจากผู้ป่วยโรคนี้ส่วนใหญ่มักมีการดำเนินของโรคที่เรื้อรังและกลับเป็นซ้ำได้บ่อย ปัญหาสำคัญของผู้ป่วยที่กลับเป็นซ้ำ คือ การไม่สามารถจัดการกับอาการที่ไม่ถูกต้องส่งผลให้การรักษาไม่ได้ผล อาการที่พบมากที่สุด คือ ประสาทหลอน พฤติกรรมแปลกประหลาด การนอนเปลี่ยนแปลง วิตกกังวล การรับรู้ไม่มีประสิทธิภาพ ฉุนเฉียวไม่เป็นมิตร มีอาการทางกายหรือหลงผิด การรับรู้ผิดปกติ พฤติกรรมไม่เหมาะสมและซึมเศร้า การจัดการอาการด้วยตนเองเป็นวิธีการที่ผู้ป่วยนำมาใช้จัดการบรรเทาหรือควบคุมอาการก่อนที่อาการจะแย่ลงจนต้องเข้ารับการรักษาในโรงพยาบาล ผู้ที่เป็นโรคจิตเภทที่สามารถดูแลจัดการกับอาการของตนเองได้จะลดการกลับป่วยซ้ำ ช่วยให้ผู้ที่เป็นโรคจิตเภทมีอาการสงบอยู่ในชุมชนได้นานกว่าผู้ที่ไม่สนใจดูแลการจัดการกับอาการด้วยตนเอง และมีการฝึกทักษะแก่ผู้ป่วยจิตเภทในการจัดการอาการเจ็บป่วยด้วยตนเอง ประกอบด้วย การจัดการกับอาการเตือนทางจิต การจัดการกับความเครียด และการการใช้ยารักษาทางจิตอย่างมีประสิทธิภาพและต่อเนื่อง

บทบาทพยาบาลในการป้องกันการกำเริบของอาการทางจิตในผู้ป่วยจิตเวชเรื้อรังจึงเป็นสิ่งสำคัญเพราะนอกจากจะช่วยลดอัตราการกลับเป็นซ้ำของโรคต้องต้องเข้ารับการรักษาในโรงพยาบาลแล้ว ยังสามารถช่วยเพิ่มคุณภาพชีวิตของผู้ป่วยให้ดีขึ้นโดยที่ผู้ป่วยสามารถจัดการกับความเจ็บป่วยของตนและสามารถกลับไปใช้ชีวิตได้ตามศักยภาพของตนเอง ลดการเป็นภาระแก่คนในครอบครัว ไม่สร้างความเดือดร้อนให้คนสังคม และลดการเข้ารับการรักษาในโรงพยาบาลแบบผู้ป่วยในซึ่งมีค่าใช้จ่ายสูงกว่า

โปรแกรมบำบัดสำหรับผู้ป่วยจิตเภท เรื่องการจัดการกับอาการด้วยตนเอง จัดทำขึ้นเพื่อเป็นแนวทางในการปฏิบัติงานของพยาบาลจิตเวชในการจัดโปรแกรมการฝึกทักษะต่างๆในผู้ป่วยโรคจิตเภทเรื้อรัง เพื่อประโยชน์ในการป้องกันการกำเริบของอาการทางจิตเมื่อผู้ป่วยใช้ชีวิตในชุมชน เป็นรูปแบบหนึ่งที่ช่วยให้ผู้ป่วยมีการปรับตัวใช้ชีวิตในชุมชนได้อย่างมีประสิทธิภาพ

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สารบัญ

คู่มือพยาบาลจิตเวช
เรื่อง การจัดการกับอาการด้วยตนเองในผู้ป่วยจิตเภท

หลักการและเหตุผล

การกำเริบของโรคจิตเภทจัดเป็นภาวะที่พบได้บ่อย มีเพียงร้อยละ 25 ที่รักษาได้ผลดีไม่มีการกลับป่วยซ้ำ อีกร้อยละ 25 ไม่ตอบสนองต่อการรักษาและมีความบกพร่องในการทำหน้าที่ด้านต่างๆอย่างมากส่วนอีกร้อยละ 50 จะมีการกลับป่วยซ้ำ (Kongsakon et al., 2005) การกลับป่วยซ้ำจะเพิ่มโอกาสการมีพยาธิสภาพที่ถาวร ผู้ป่วยที่มีความบกพร่องในความสามารถมากขึ้นมีการพยากรณ์ของโรคไม่ดี มีความเสื่อมถอยของบุคลิกภาพ อารมณ์และการรับรู้เกิดขึ้นอย่างถาวรโดยผู้ป่วยจิตเภทมีการเสื่อมถอยของบุคลิกภาพและการทำหน้าที่ต่างๆของร่างกายน้อยที่สุดภายใน 5 ปีแรกของการเจ็บป่วย (Breir et al., 1991) การกลับป่วยซ้ำเป็นความล้มเหลวในการปรับตัวอยู่ในสังคมของผู้ป่วยจิตเภท ผู้ที่เป็นโรคจิตเภทมีโอกาสป่วยซ้ำได้ถึงร้อยละ 70 โดยหลังจำหน่ายออกจากโรงพยาบาล ผู้ป่วยส่วนมากสามารถอยู่กับครอบครัวได้ไม่เกิน 6 เดือนและมีอาการมากขึ้นจนต้องเข้ารับการรักษาซ้ำในโรงพยาบาล (Malla & Norman, 1994)

ปัญหาสำคัญของผู้ป่วยที่กลับเป็นซ้ำ คือ การไม่สามารถจัดการกับอาการเตือนทางจิตที่ไม่ถูกต้องส่งผลให้การรักษาไม่ได้ผล (Novacek & Raskin, 1998) และพบว่าผู้ป่วยที่มีการกำเริบของโรค ประมาณ 30% ไม่สามารถตรวจพบอาการเตือนของตนเองได้ ผู้ที่ป่วยครั้งแรกประมาณ 85-90% มักมารับการรักษาซ้ำด้วยอาการทางบวกภายใน 12 เดือน (McGorry, 2002) อาการที่พบมากที่สุด คือ ประสาทหลอน พฤติกรรมแปลกประหลาด การนอนเปลี่ยนแปลง วิตกกังวล การรับรู้ไม่มีประสิทธิภาพ ฉุนเฉียวไม่เป็นมิตร มีอาการทางกายหรือหลงผิด การรับรู้ผิดปกติ พฤติกรรมไม่เหมาะสมและซึมเศร้า (Heinrichs & Carpenter, 1985)

อาการเตือนเป็นการเปลี่ยนแปลงในด้านความรู้สึก ความคิดและพฤติกรรมที่แสดงถึงอาการก่อนการกำเริบของโรค (Heinrichs & Carpenter, 1985; Herz & Melville, 1980; Birchwood et al., 1989) อาการเตือนที่พบมากที่สุดคือ มีความตึงเครียดและอาการทางประสาทเพิ่มขึ้น อยากอาหารลดลง ไม่มีสมาธิ นอนหลับยาก ซึมเศร้าและแยกตัวจากสังคม (Herz & Melville, 1980) ส่วนอาการทางจิตที่พบมากที่สุด ได้แก่ หูแว่ว พูดคนเดียว หมกมุ่นทางด้านศาสนาและคิดว่ามีคนควบคุมตนเอง (Birchwood et al., 1989) ระยะเวลาตั้งแต่เกิดอาการนำจนถึงการเกิดอาการทางจิตใช้เวลา 1 เดือน โดยมีอาการนำอย่างน้อย 1 อาการซึ่งมีความสัมพันธ์กับระดับอาการทางจิตที่เกิดตามมา ซึ่งอาการเตือนในแต่ละคนมีความแตกต่างกัน (Birchwood et al., 1989; Malla & Norman, 1994) จากการศึกษาพบว่า ผู้ป่วยและคนในครอบครัวสามารถสังเกตอาการเตือนก่อนการกำเริบ

ของโรคและสามารถดูแลจัดการกับอาการของตนเองได้ (Malla & Norman, 1994; Baker, 1995; Kennedy et al., 2000)

การจัดการอาการด้วยตนเองเป็นวิธีการที่ผู้ป่วยนำมาใช้จัดการบรรเทาหรือควบคุมอาการเตือนก่อนที่อาการจะแย่ลงจนต้องเข้ารับการรักษาในโรงพยาบาล (Murphy & Moller, 1993) ผู้ที่เป็นโรคจิตเภทที่สามารถดูแลจัดการกับอาการของตนเองได้จะลดการกลับป่วยซ้ำ ช่วยให้ผู้ที่เป็นโรคจิตเภทมีการสงบอยู่ในชุมชนได้นานกว่าผู้ที่ไม่สนใจดูแลการจัดการกับอาการด้วยตนเอง (Kennedy et al., 2000) ซึ่งสอดคล้องกับการศึกษาอื่นๆในผู้ป่วยจิตเวชที่พบว่า วิธีที่ดีในการจัดการของผู้ที่มีการเจ็บป่วยทางจิตที่รุนแรงคือ การระบุอาการเตือนตั้งแต่ระยะเริ่มแรกและวางแผนในการจัดการกับอาการ (Jorgensen, 1998; Roe et al., 2006) และมีการฝึกผู้ป่วยจิตเภทในการจัดการอาการเจ็บป่วยด้วยตนเอง ประกอบด้วยการรักษาด้วยยา การจัดการกับอาการด้วยตนเองกับอาการนำของการป่วยซ้ำ และพัฒนาการวางแผนการจัดการกับการกลับป่วยซ้ำ การแสวงหาและได้รับการดูแลอาการเจ็บป่วยทางจิตเมื่ออยู่ที่บ้านและในชุมชน การลดความเครียดและช่วยเหลือในการเผชิญปัญหาหลังจำหน่าย (Nobuo et al., 2002)

การพยาบาลผู้ป่วยจิตเภทได้มีการให้ความรู้เกี่ยวกับอาการเตือนของโรคจิตเภทอยู่ในส่วนหนึ่งของโปรแกรมการรักษา แต่ไม่มีการฝึกทักษะจัดการกับอาการเตือนซึ่งมีความแตกต่างเฉพาะในแต่ละบุคคล จึงทำให้ผู้ป่วยจิตเภทยังขาดความเชื่อมั่นในความรู้ความสามารถของตนเองที่จะจัดการกับอาการเตือนของตนเองได้ จากการทบทวนวรรณกรรมพบว่ายังไม่มีโปรแกรมที่นำมาจัดกระทำให้ผู้ป่วยจิตเภทจัดการกับอาการเตือนทางจิตของตนได้ จากแนวเหตุผลดังกล่าวผู้วิจัยจึงเลือกศึกษาการจัดการกับอาการด้วยตนเองมาใช้ในการสร้างโปรแกรมส่งเสริมการจัดการกับอาการเตือนทางจิตของผู้ป่วยจิตเภท เพื่อให้ผู้ป่วยจิตเภทเกิดความรู้ความเข้าใจอย่างถูกต้องเกี่ยวกับอาการเตือนของตนเองและสามารถจัดการกับอาการได้อย่างเหมาะสม เป็นการป้องกันการกำเริบของอาการทางจิตในผู้ป่วยจิตเวชเรื้อรังจึงเป็นสิ่งสำคัญเพราะนอกจากจะช่วยลดอัตราการกลับเป็นซ้ำของโรคต้องต้องเข้ารับการรักษาในโรงพยาบาลแล้ว ยังสามารถช่วยเพิ่มคุณภาพชีวิตของผู้ป่วยให้ดีขึ้นโดยที่ผู้ป่วยสามารถจัดการกับความเจ็บป่วยของตนและสามารถกลับไปใช้ชีวิตได้ตามศักยภาพของตนเอง ลดการเป็นภาระแก่คนในครอบครัว ไม่สร้างความเดือดร้อนให้คนสังคม และลดการเข้ารับการรักษาในโรงพยาบาลแบบผู้ป่วยในซึ่งมีค่าใช้จ่ายสูงกว่า

ขั้นตอนที่ 2 การเตรียมความพร้อมเพื่อการจัดการตนเอง

ขั้นตอนนี้เป็นขั้นตอนที่พยาบาลให้ความรู้เกี่ยวกับการจัดการตนเอง โรคจิตเภท การกำเริบของโรค ความเครียด อาการเตือนทางจิตและการจัดการกับอาการด้วยตนเองเพื่อป้องกันการกลับเป็นซ้ำของโรค ความรู้ความเข้าใจเกี่ยวกับโรค จะช่วยให้ผู้ป่วยจิตเภทปฏิบัติตามแผนการ

รักษาได้ดีขึ้น

ขั้นตอนที่ 3 การปฏิบัติการจัดการตนเอง

ขั้นตอนนี้เป็นขั้นตอนที่ผู้ป่วยได้นำพฤติกรรมและทักษะที่ได้เรียนรู้ ไปทดลองปฏิบัติในการดำเนินชีวิตประจำวัน ในขั้นตอนนี้นอกจากผู้ป่วยจะได้รับคู่มือการปฏิบัติตัวเพื่อเป็นแนวทางในการจัดการกับอาการเตือน ความเครียดและการแก้ไขอาการข้างเคียงจากการรับประทานยาแล้ว ผู้วิจัยใช้โทรศัพท์ในการสอบถามเกี่ยวกับพฤติกรรมการจัดการกับอาการเตือนและอาการเตือนที่เกิดขึ้น ความเครียดและการจัดการกับความเครียดด้วยตนเอง และการรับประทานยา อาการข้างเคียงที่เกิดขึ้นและการจัดการกับอาการที่เกิดขึ้น

ขั้นตอนที่ 4 การติดตามและประเมินผลการปฏิบัติ

ขั้นตอนนี้ให้ผู้ป่วยได้มีส่วนร่วมในการประเมินผลตนเองตลอดระยะเวลาการเข้าร่วมโปรแกรม โดยเปรียบเทียบพฤติกรรมของตนเองกับเป้าหมายที่ร่วมกันกำหนดกับผู้วิจัย นอกจากนี้การที่ผู้วิจัยติดตามสอบถามทั้งทางโทรศัพท์และเมื่อผู้ป่วยมาตรวจตามนัด เป็นการสะท้อนข้อมูลให้ผู้ป่วยรับรู้ผลการปฏิบัติพฤติกรรมของตนเองและเป็นการเสริมแรงที่ทำให้ผู้ป่วยคงกระทำพฤติกรรมที่ถูกต้องละเหมาะสม ตลอดจนเกิดการเรียนรู้และปรับเปลี่ยนพฤติกรรมที่ยังไม่เหมาะสม ซึ่งสอดคล้องกับแนวคิดของแคนเฟอร์ (Kanfer, 1991) ที่เน้นให้มีการเสริมแรงผู้ป่วยอย่างสม่ำเสมอ ทั้งที่เป็นการเสริมแรงด้วยตนเองและเสริมแรงจากบุคคลภายนอก เนื่องจากในขณะที่มีการปรับเปลี่ยนพฤติกรรม ผู้ป่วยอาจเกิดความรู้สึกยุ่งยาก เกิดปัญหาและอุปสรรค ทำให้หมดกำลังใจและยุติพฤติกรรมที่เหมาะสมได้

คุณสมบัติของผู้เข้าร่วมโปรแกรม

กลุ่มเป้าหมายคือ ผู้ป่วยจิตเภทที่มารับการรักษาแบบผู้ป่วยนอก ณ สถาบันกัลยาณ์ ราชนครินทร์ ซึ่งมีคุณสมบัติ ดังต่อไปนี้

1. เป็นผู้ป่วยที่ได้รับการวินิจฉัยจากจิตแพทย์ตามเกณฑ์ ICD 10 ว่าเป็นโรคจิตเภท
2. ได้รับยารักษาอาการทางจิตครบตามแผนการรักษาในช่วง 1 เดือนที่ผ่านมา
3. อายุระหว่าง 20-60 ปี
4. มีคะแนนแบบประเมินอาการทางจิต (BPRS) ไม่เกิน 30 คะแนน (base line score)
5. สื่อสารภาษาไทยเข้าใจ พูดคุยโต้ตอบและอ่านออกเขียนได้
6. ยินยอมเข้าร่วมการศึกษาวิจัย

ขั้นตอนการจัดการกับอาการทางจิตด้วยตนเอง

การจัดการกับอาการทางจิตด้วยตนเองเพื่อป้องกันการกำเริบของอาการในผู้ป่วยจิตเภทเรื้อรังนี้ สร้างขึ้นโดยใช้ The self-management model เป็นแนวทาง มีการพัฒนาศักยภาพในตัวของ

ผู้ป่วยจิตเภทในปัจจัยปกป้องเฉพาะบุคคล (Personal protectors) ที่สามารถจัดกระทำได้ โดยมีองค์ประกอบของโปรแกรม ดังต่อไปนี้

ระยะเวลาและวิธีดำเนินการ 6 สัปดาห์ แบ่งเป็น

ระยะการประเมินความต้องการและการวางแผน

สัปดาห์ที่ 1 ใช้เวลา 60 นาที จัดกิจกรรมสร้างสัมพันธภาพและประเมินการรับรู้การประเมินการรับรู้เกี่ยวกับประสบการณ์อาการเตือนทางจิต ความรุนแรง การจัดการกับอาการเตือนทางจิตที่เกิดขึ้น และผลลัพธ์ที่เกิดจากการจัดการกับอาการเตือนทางจิตนั้น ร่วมกับมีการประเมินความต้องการในการเรียนรู้ของผู้ป่วยโดยพยาบาลจะต้องไต่ถามและรับฟังการรับรู้หรือความรู้ดั้งเดิมของผู้ป่วยก่อนเนื่องจากบุคคลโดยเฉพาะในผู้ป่วยจิตเภทเรื้อรังมักจะเคยผ่านการเรียนรู้การดูแลตนเองในบางอย่างมาแล้ว ดังนั้นการให้ความรู้หรือข้อมูลจึงควรเริ่มในสิ่งที่ผู้ป่วยต้องการหรือให้เพิ่มเติมในสิ่งที่ยังขาดอยู่ ซึ่งข้อมูลทั้งหมดที่ได้จากการประเมินผู้ป่วยนี้จะนำไปสู่การระบุปัญหาร่วมกัน จากนั้นจึงร่วมกันวางแผนและกำหนดเป้าหมายในการแก้ไขปัญหาที่เป็นไปได้ในการจัดการกับอาการเตือนทางจิตในแต่ละราย

ระยะการเตรียมความพร้อมเพื่อการจัดการตนเอง

สัปดาห์ที่ 2 ใช้เวลา 90 นาที จัดกิจกรรมให้ความรู้เกี่ยวกับการจัดการด้วยตนเอง โรคจิตเภท การรับประทานยารักษา การกำเริบของโรคจิตเภท ความเครียดและอาการเตือน

สัปดาห์ที่ 3 ใช้เวลา 90 นาที ให้ความรู้เกี่ยวกับกลวิธีการจัดการตนเอง โดยการเรียนรู้และฝึกเทคนิคดังต่อไปนี้ 1) การผ่อนคลาย 2) การตอบโต้กับสิ่งที่เกิดขึ้น 3) การหาแหล่งช่วยเหลือ 4) การสร้างความรู้สึกที่ดี 5) การแยกตัวออกจากสังคม 6) การหลีกเลี่ยงพฤติกรรมที่ไม่เหมาะสม

ระยะการปฏิบัติการจัดการตนเอง

สัปดาห์ที่ 4-5 การปฏิบัติกิจกรรมการจัดการด้วยตนเองของผู้ป่วยจิตเภท ดังนี้

สัปดาห์ที่ 4 ติดตามประเมินผลการปฏิบัติและให้แรงเสริมครั้งที่ 1

สัปดาห์ที่ 5 ติดตามประเมินผลการปฏิบัติและให้แรงเสริมครั้งที่ 2

ระยะการติดตามและประเมินผลการปฏิบัติ

สัปดาห์ที่ 6 ติดตามประเมินผลการปฏิบัติ และประเมินผลโปรแกรม

สถานที่ดำเนินการ

สัปดาห์ที่ 1-3 ดำเนินการที่แผนกผู้ป่วยนอก สถาบันกัลยาณ์ราชนครินทร์

สัปดาห์ที่ 4-5 ดำเนินการที่บ้านของผู้ป่วยจิตเภท

สัปดาห์ที่ 6 ดำเนินการที่แผนกผู้ป่วยนอก สถาบันกัลยาณ์ราชนครินทร์

แผนการให้ความรู้ผู้ป่วยจิตเภทในการจัดการกับอาการด้วยตนเองและ
การกำเริบของอาการทางจิต

การวิจัยครั้งนี้ ผู้วิจัยจะให้ความรู้กับผู้ป่วยด้วยวิธีการสอนในเรื่องเกี่ยวกับโรคจิตเภท ความรู้เรื่องโรคจิตเภท การรักษาด้วยยาต้านอาการทางจิต ความเครียด อาการเตือนทางจิต และการป้องกันการกำเริบของอาการทางจิต โดยจะทำการประเมินความรู้เดิมของผู้ป่วยก่อนร่วมกับการให้ความรู้ในส่วนที่ผู้ป่วยขาดไป และเปิดโอกาสให้ผู้ป่วยได้ซักถามในสิ่งที่สงสัยหรือไม่เข้าใจ โดยมีสื่อการสอนคือ คู่มือการจัดการกับอาการด้วยตนเองของผู้ป่วยจิตเภท

จำนวนผู้ป่วย 8-10 คน

สถานที่สอน แผนกผู้ป่วยนอก สถาบันกัลยาณ์ราชนครินทร์

ระยะเวลา 40 นาที

ผู้สอน สุดาพร สถิตยุทธการ

วัตถุประสงค์ทั่วไป

1. เพื่อให้ผู้ป่วยมีความรู้ความเข้าใจในเรื่องโรคจิตเภท อาการ การรักษาที่ได้รับ การรักษาด้วยยาต้านอาการทางจิต ความเครียด อาการเตือนทางการกำเริบของอาการทางจิตและการป้องกันการกำเริบของอาการทางจิต
2. เพื่อให้ผู้ป่วยมีความรู้ความเข้าใจถึงประโยชน์ของการจัดการกับอาการเตือนทางจิตด้วยตนเอง เพื่อบรรเทาอาการเตือนทางจิต และการป้องกันการกำเริบของโรคจิตเภทได้อย่างถูกต้อง
3. เพื่อให้ผู้ป่วยสามารถนำความรู้ที่ได้ไปใช้ในการดูแลตนเองเพื่อบรรเทาอาการเตือนทางจิตและประเมินอาการกำเริบของโรคจิตเภท รวมทั้งควบคุมหรือหลีกเลี่ยงสิ่งต่าง ๆ เพื่อป้องกันการเกิดอาการกำเริบได้อย่าง ถูกต้องและเหมาะสม

ครั้งที่ 1

วัตถุประสงค์เชิงพฤติกรรม	เนื้อหา	กิจกรรมการเรียนการสอน	สื่อการสอน	เกณฑ์การประเมินผล
เพื่อสร้างสัมพันธภาพกับผู้ป่วยระหว่างผู้ป่วยและพยาบาลและชี้แจงถึงวัตถุประสงค์ให้ผู้ป่วยได้ทราบ	สวัสดีค่ะดิฉันชื่อ นางสุดาพร สถิตยุทธการ เป็นนิสิตปริญญาเอก คณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ก่อนที่ดิฉันจะพูดถึงรายละเอียดเกี่ยวกับโรคจิตเภท ว่ามีลักษณะอย่างไร สาเหตุ อาการ การกำเริบของอาการทางจิตหรือการกลับเป็นซ้ำของโรค สาเหตุของกำเริบ และการป้องกัน และอาการที่เป็นปัญหาหลักที่ส่งผลให้เกิดการกำเริบในโรคนี้ คือ อาการเตือนของโรค ก่อนที่จะกล่าวถึงรายละเอียดต่างๆ อยากให้ท่านลองคิดถึงการเจ็บป่วยที่ผ่านมา ท่านมาพบแพทย์ด้วยอาการหรือปัญหาอะไรบ้าง <u>วัตถุ ประสงค์</u> เพื่อประเมินปัญหาและความต้องการของผู้ป่วยรวมทั้งพัฒนาศักยภาพให้ผู้ป่วยจิตเภทในการจัดการกับอาการเตือนของกำเริบของโรคได้ด้วยตนเอง	<u>ขั้นนำ</u> - ผู้วิจัยทักทาย แนะนำตนเองและให้สมาชิกในกลุ่มแนะนำตัวเอง - ผู้วิจัยนำเข้าสู่เนื้อหาโดยสอบถามและเปิดโอกาสให้ผู้ป่วยเล่าถึงประสบการณ์อาการป่วยทางจิตที่ผ่านมา -ประเมินความรู้เดิมของผู้ป่วยด้วยแบบประเมินความรู้เกี่ยวกับการกลับเป็นซ้ำและการป้องกันการกลับเป็นซ้ำของโรคจิตเภท (ใช้เวลาประมาณ 5 นาที)	-คู่มือการจัดการกับอาการด้วยตนเอง - กระดาน/บอร์ดติดโปสเตอร์	-สังเกตความสนใจ ความกระตือรือร้น และความยินดีที่จะเข้าร่วมการวิจัย รวมทั้งการมีส่วนร่วมในการตอบคำถาม
ให้ผู้ป่วยมีความรู้ความเข้าใจเกี่ยวกับ	โรคจิตเภท หมายถึงโรคจิตอย่างหนึ่งที่มีความผิดปกติของความคิด การแสดง ออกทางพฤติกรรม การรับรู้และมีอารมณ์ผิดปกติจากบุคคลทั่วไป ผู้ป่วยโรคนี้ส่วนใหญ่			
โรคจิตเภทและสามารถดูแลตนเองได้อย่างถูกต้อง	มักมีการดำเนินของโรคที่เรื้อรังและกำเริบได้บ่อย ต้องใช้ระยะเวลารักษาที่ยาวนานและต่อเนื่อง		- ภาพพลิกเรื่องโรคจิตเภทและการกลับเป็นซ้ำ	

คู่มือการจัดการกับอาการด้วยตนเองสำหรับผู้ป่วย

INSTRUMENTS FOR MONITORING INTRVENTION

แบบประเมินความรู้เรื่องโรคจิตเภทและการกลับป่วยซ้ำของโรค

<u>คำชี้แจง</u> แบบสอบถามนี้ต้องการประเมินความรู้เกี่ยวกับความรู้เรื่องโรคจิตเภทและการกำเริบของอาการทางจิต โปรดทำเครื่องหมาย ✓ในช่อง "ใช่" ในข้อความที่ท่านเห็นว่าถูกต้อง และทำเครื่องหมาย ✓ในช่อง "ไม่ใช่" ในข้อความที่ท่านเห็นว่าไม่ถูกต้อง

ข้อความ	ใช่	ไม่ใช่
1. การไม่รับประทานยาอย่างต่อเนื่องเป็นสาเหตุที่สำคัญประการเดียวที่ทำให้เกิดการกำเริบของโรค		
2. การกลับเป็นซ้ำของโรคในครั้งต่อมา จะเกิดอาการทางจิตและมีระดับความรุนแรงของโรคลดลง		
3. การกลับเป็นซ้ำในแต่ละครั้งจะมีอาการเริ่มต้นของการเปลี่ยนแปลงทางจิตแตกต่างกันไป		
4. อาการของการกลับเป็นซ้ำที่พบบ่อยที่สุด คือ อาการหลงผิดหรืออาการประสาทหลอน		
5. อาการเตือนทางจิตที่เกิดขึ้นของทุกคนมีลักษณะแตกต่างกัน		
6. อาการเตือนส่วนใหญ่มักเกิดขึ้นในระยะ 2-4 สัปดาห์ก่อนมีการกำเริบของโรค		
7. อาการเตือนที่ส่งสัญญาณว่าท่านกำลังจะมีอาการกำเริบของโรค ได้แก่ นอนไม่หลับ เครียด วิตกกังวล แยกตัวจากสังคม และไม่มีสมาธิ เป็นต้น		
8. การจัดการกับความเครียดอย่างถูกต้องและเหมาะสม จะช่วยป้องกันการกลับเป็นซ้ำได้		
9. เมื่ออาการทางจิตสงบลง ผู้ป่วยสามารถลดขนาดของยาที่รับประทานได้เอง โดยไม่ต้องรอให้แพทย์อนุญาต		
10. เมื่อมีความคิด ความรู้สึก และพฤติกรรมที่เปลี่ยนแปลงไปจากปกติเป็นอาการเตือนว่า บุคคลนั้นเริ่มมีอาการกำเริบของอาการทางจิตขึ้น		
คะแนนรวมทั้งหมด.....คะแนน		

แบบสอบถามการรับรู้อาการเตือนของโรคจิตเภท

คำชี้แจง

ผู้ประเมินจะอ่านข้อความในแบบสอบถามให้ผู้ป่วยฟังทีละข้อ โดยให้ผู้ป่วยประเมินว่าในระยะ 2 สัปดาห์ที่ผ่านมามีเหตุการณ์ใดเกิดขึ้นกับตนเอง เพื่อให้ผู้ป่วยพิจารณาว่าตนเองมีการรับรู้อาการเตือนของการกำเริบของโรคจิตเภทในระดับใด โดยผู้ประเมินทำเครื่องหมาย ✓ลงในช่องคำตอบที่ผู้ป่วยเลือก เมื่อผู้ป่วยไม่เข้าใจ ผู้ประเมินจะอธิบายเพิ่มเติมโดยคงความหมายของเนื้อหาในแบบสอบถามเช่นเดิม เพื่อให้ผู้ป่วยตอบตรงกับความจริงมากที่สุด โดยมีเกณฑ์การเลือกตอบคำถามดังนี้

ไม่เลย หมายถึง ไม่รับรู้ว่าเป็นอาการเตือน
น้อย หมายถึง รับรู้ว่ามีอาการเตือนเล็กน้อย
ปานกลาง หมายถึง รับรู้ว่ามีอาการเตือนปานกลาง
มาก หมายถึง รับรู้ว่ามีอาการเตือนมาก

ข้อความ	การรับรู้อาการเตือน			
	ไม่เลย	น้อย	ปานกลาง	มาก
1. พูดหรือยิ้มคนเดียว				
2. รู้สึกตนเองไม่สามารถเผชิญปัญหาได้				
3. รู้สึกปวดและเจ็บทางร่างกาย				
4. คำพูดสับสนและมีคำพูดแปลกๆ				
5. รู้สึกเหนื่อยล้าหรือไม่มีกำลัง				
6. รู้สึกตนเองกำลังหลอกลวงหรือเล่นตลกกับผู้อื่น				
7. ความคิดซ้ำเรื่องเดิมๆ				
8. รู้สึกตนเองเงียบเฉยและไม่เกี่ยวข้องกับใคร				
9. ดื้อรั้นหรือปฏิเสธคำขอร้องให้ช่วยเหลือ				
.....				
.....				
.....				
34.				

แบบประเมินการจัดการกับอาการด้วยตนเอง

คำชี้แจง

ผู้ประเมินจะอ่านข้อความในแบบสอบถามให้ผู้ป่วยฟังทีละข้อ โดยให้ผู้ป่วยประเมินว่าใช้วิธีการใดบ้างในการจัดการกับอาการต่างๆที่เกิดขึ้นกับตนเอง และใช้วิธีการนั้นมากน้อยอย่างไร ได้ผลหรือไม่อย่างไร เพื่อให้ผู้ป่วยพิจารณาว่าตนเองมีการจัดการกับอาการของโรคจิตเภทในระดับใด โดยผู้ประเมินทำเครื่องหมาย ✓ ลงในช่องคำตอบที่ผู้ป่วยเลือก เมื่อผู้ป่วยไม่เข้าใจ ผู้ประเมินจะอธิบายเพิ่มเติมโดยคงความหมายของเนื้อหาในแบบสอบถามเช่นเดิม เพื่อให้ผู้ป่วยตอบตรงกับความจริงมากที่สุด โดยมีเกณฑ์การเลือกตอบคำถาม ดังนี้

ระดับการใช้การจัดการกับอาการ

ไม่เลย หมายถึง ไม่เคยใช้วิธีนี้ในการจัดการกับอาการ
น้อย หมายถึง เคยใช้วิธีนี้ในการจัดการกับอาการนาน ๆ ครั้ง
ปานกลาง หมายถึง เคยใช้วิธีนี้ในการจัดการกับอาการบ่อยครั้ง
มาก หมายถึง เคยใช้วิธีนี้ในการจัดการกับอาการใช้ทุกวัน

ผลที่ได้จากการใช้การจัดการกับอาการ

ไม่เลย หมายถึง ไม่ได้ผลเลย
น้อย หมายถึง ได้ผลนาน ๆ ครั้ง
ปานกลาง หมายถึง ได้ผลเป็นบางครั้ง
มาก หมายถึง ได้ผลบ่อยครั้ง
มากที่สุด หมายถึง ได้ผลทุกครั้ง

วิธีการที่ท่านใช้ในการจัดการกับอาการ	**การใช้การจัดการกับอาการ**				**ผลที่ได้จากการใช้การจัดการกับอาการ**				
	ไม่เลย	**น้อย**	**ปานกลาง**	**มาก**	**ไม่เลย**	**น้อย**	**ปานกลาง**	**มาก**	**มากที่สุด**
1. อดทนอยู่กับอาการเหล่านั้น									
2. พูดคุยกับแพทย์									
3. พูดคุยกับพยาบาล									
…….									
38. …….									

แบบเฝ้าระวังอาการเตือนของการกำเริบของอาการทางจิต

คำชี้แจง: ให้ท่านประเมินความผิดปกติของหัวข้อต่าง ๆ ด้วยตนเอง สัปดาห์ละ 1 ครั้ง เพื่อประโยชน์การเฝ้าระวังอาการเตือนของการกำเริบของอาการทางจิต

จงทำเครื่องหมาย / หลังข้อความที่ “พบ” ความผิดปกติเพิ่มมากขึ้น เมื่อเปรียบเทียบกับสัปดาห์ที่แล้ว

จงทำเครื่องหมาย **X** หลังข้อความที่ “ไม่พบ” ความผิดปกติเพิ่มมากขึ้น เมื่อเปรียบเทียบกับสัปดาห์ที่แล้ว

ข้อที่	ข้อความ	ครั้งที่ 1
1	ปัญหาเกี่ยวกับการนอนหลับ	
2	ปัญหาเกี่ยวกับการรับประทานอาหาร	
3	ความซึมเศร้า	
4	ไม่มีสมาธิ	
5	รู้สึกกระสับกระส่าย	
6	รู้สึกถูกกดดัน สับสน ตกใจ กลัว	
7	ดื่มสุรา	
8	การใช้สารเสพติด	
9	ได้ยินเสียงหรือมองเห็นสิ่งที่คนอื่นไม่สามารถได้ยินหรือมองเห็น	
10	ไม่รู้สึกสนุกสนานกับกิจกรรมต่างๆที่เคยทำ	
11	รู้สึกว่ามีบุคคลอื่นจ้องมอง นินทาหรือต้องการจะทำร้ายตน	
12	อยากเก็บตัว อยู่คนเดียว ไม่ต้องการคบหาสมาคมกับใคร	
13	ทะเลาะโต้เถียงกับบุคคลอื่น	
14	หมกมุ่นครุ่นคิดเรื่องใดเรื่องหนึ่ง	
15	ไม่ใส่ใจกับการรักษาความสะอาดร่างกายหรือการแต่งกาย	
16	.....	
17	.....	
18	.....	

คุณมีอาการอื่น ๆ ที่เกิดขึ้นใหม่หรือเพิ่มขึ้นจากสัปดาห์ที่แล้วอีกหรือไม่

..... มี

..... ถ้ามี คืออะไร .....

.....

.....

ในสัปดาห์ที่ผ่านมา มีบางสิ่งบางอย่างที่ทำให้คุณรู้สึกไม่สบายใจบ้างหรือไม่

..... มี

..... ถ้ามี คืออะไร .....

.....

.....

คุณรับประทานยาตามแพทย์สั่งสม่ำเสมอหรือไม่

..... ใช่ ..... ไม่ใช่

ถ้ามีอาการเตือนเกิดขึ้นหรือต้องการได้รับความช่วยเหลือเร่งด่วน สามารถติดต่อ

คุณสุดาพร สถิตยุทธการ เบอร์โทรศัพท์ (081)-9135166

การสำรวจการจัดการกับอาการเตือนด้วยตนเอง

สาเหตุที่ทำให้เกิดอาการเตือนในครั้งที่ผ่านมา:

1. .....

อาการเตือนที่เกิดขึ้นก่อนการกำเริบของโรคในครั้งที่ผ่านมา:

1. .....

คุณจัดการกับอาการเตือนทางจิตที่เกิดขึ้นในครั้งที่ผ่านมาอย่างไร:

1. .....

บุคคลที่คุณอยากขอความช่วยเหลือขณะที่มีอาการเตือน**:**

1. .....

บุคคลที่สามารถติดต่อได้ในกรณีฉุกเฉิน**:**

1. .....

การปฏิบัติและการประเมินผลการจัดการกับอาการทางจิตด้วยตนเอง

คำถาม เมื่อท่านมีอาการเปลี่ยนแปลงทางจิตเกิดขึ้น ท่านจะทำอะไร ท่านจะทำอย่างไร บ่อยแค่ไหนเมื่อไหร่จะเริ่มต้น ท่านจะทบทวนกระบวนการเมื่อไหร่

เป้าหมายของสัปดาห์นี้ คือ:.....

ขั้นตอนการปฏิบัติ	เมื่อปฏิบัติได้สำเร็จ ทำเครื่องหมายถูก
1.-----	☐
2.-----	☐

ท่านต้องการที่จะบรรลุเป้าหมายนี้ขนาดเท่าใด

(ต้องการน้อย) 1 2 3 4 5 6 7 8 9 10 (ต้องการมาก)

ท่านมีความเชื่อมั่นที่จะบรรลุเป้าหมายนี้เท่าไหร่

(ไม่มั่นใจ) 1 2 3 4 5 6 7 8 9 10 (มั่นใจมาก)

การประเมินผล.....

.....

APPENDIX G

THE RESULTS OF MONITORING EXPERIMENTAL INSTRUMENTS

Table 9 The comparison of the Symptom Recognition Questionnaire between pretest and posttest for sample in experimental group.

Symptom Recognition Questionnaire	Pretest		Posttest		t	df	p-value
	Mean	SD.	Mean	SD.			
Anxiety or agitation	15.78	5.13	26.00	4.57	-8.78	39	.00
Depression or withdrawal	9.13	3.09	13.08	2.26	-7.12	39	.00
Disinhibition	8.93	2.60	14.00	2.48	-9.42	39	.00
Incipient psychosis	13.43	5.01	25.25	2.88	-12.21	39	.00
Total	47.25	14.36	78.33	8.17	-11.55	39	.00

$p < 0.05$

Table 10 The comparison of the schizophrenia and psychotic relapse test between pretest and posttest for sample in experimental group.

Measurement	Pretest		Posttest		t	df	p-value
	Mean	SD.	Mean	SD.			
The schizophrenia and psychotic relapse test	5.08	1.18	8.53	.96	-16.07	39	.00

$p < 0.05$

Table 11 The comparison of the Symptom Self-management Questionnaire between pretest and posttest for sample in experimental group

Symptom Self-management Questionnaire	Pretest		Posttest		t	df	p-value
	Mean	SD.	Mean	SD.			
Frequency of using							
- Distraction	29.18	3.78	32.55	5.22	-4.59	39	.00
- Fighting back	15.10	2.59	16.83	2.32	-3.91	39	.00
- Help-seeking	9.25	3.11	10.20	2.50	-2.42	39	.02
- Attempts to feel better	10.68	3.73	12.00	2.71	-3.19	39	.00
- Isolation	10.13	2.47	11.28	1.54	-2.99	39	.00
- Escape behavior	5.98	1.75	7.48	1.85	-3.91	39	.00
Total	82.80	12.74	88.45	8.55	-3.48	39	.00
Perceive outcomes							
- Distraction	30.95	5.55	33.83	5.56	-3.29	39	.00
- Fighting back	15.65	3.17	16.83	2.32	-2.29	39	.03
- Help-seeking	8.63	2.54	11.00	2.70	-5.94	39	.00
- Attempts to feel better	11.00	4.24	12.65	3.50	-2.98	39	.00
- Isolation	10.08	2.50	11.43	1.66	-3.64	39	.00
- Escape behavior	6.85	2.42	5.48	1.41	-4.76	39	.00
Total	85.53	15.38	91.20	10.61	-2.95	39	.00

$p < 0.05$

APPENDIX H

THE COMPARISON OF PSYCHOTIC RELAPSE BETWEEN EXPERIMENTAL AND CONTROL GROUP

Table 12 The comparison of psychotic relapse between experimental and control group at posttest

No	Experimental Group N = 40 Posttest				Control Group N = 40 Posttest			
	hallucination	delusion	disorganization	Meaning	hallucination	delusion	disorganization	Meaning
1	1	1	1	NR	1	1	1	NR
2	1	1	1	NR	1	1	1	NR
3	4	1	1	NR	2	1	1	NR
4	1	1	2	NR	1	1	2	NR
5	1	1	2	NR	4	1	3	NR
6	1	1	1	NR	1	1	2	NR
7	1	1	1	NR	1	1	1	NR
8	1	2	1	NR	1	1	1	NR
9	1	1	1	NR	1	1	1	NR
10	1	3	4	NR	1	2	2	NR
11	1	1	1	NR	1	1	1	NR
12	1	1	1	NR	1	1	6	*R
13	1	1	1	NR	1	1	1	NR
14	1	1	1	NR	1	1	2	NR
15	6	6	1	*R	1	1	1	NR
16	1	1	1	NR	6	1	3	*R
17	2	2	1	NR	6	3	1	*R
18	3	2	2	NR	1	6	1	*R
19	6	1	1	*R	1	1	3	NR
20	1	1	1	NR	6	4	5	*R
21	1	1	1	NR	1	1	3	NR
22	1	1	2	NR	1	1	1	NR
23	1	2	3	NR	3	6	4	*R
24	3	1	1	NR	4	3	4	NR
25	6	6	1	*R	3	3	1	NR
26	1	1	1	NR	1	1	1	NR
27	1	1	2	NR	1	1	3	NR
28	1	1	1	NR	3	2	3	NR
29	3	3	1	NR	1	1	1	NR
30	1	1	1	NR	1	1	3	NR
31	1	1	1	NR	6	1	2	*R
32	1	1	1	NR	1	1	1	NR
33	3	1	2	NR	6	3	5	*R
34	1	4	1	NR	4	4	2	NR
35	1	1	1	NR	3	4	3	NR
36	6	3	2	*R	3	3	3	NR
37	3	3	3	NR	6	1	1	*R
38	1	1	1	NR	2	2	1	NR
39	1	1	1	NR	3	3	3	NR
40	1	1	3	NR	1	1	1	NR
Mean	1.85	1.63	1.40	4	2.33	1.85	13	9
SD.	1.61	1.27	.74		1.84	1.39	1.34	

* R = the case who was experiencing psychotic relapse at the posttest
NR = the case who was non experienced psychotic relapse at the posttest

APPENDIX I

LETTER FOR REQUEST PERMISSION TO USE THE INSTRUMENT

ที่ สธ ๐๘๐๖/ ๕๑๔๓

กรมสุขภาพจิต กระทรวงสาธารณสุข
ถนนติวานนท์ จังหวัดนนทบุรี ๑๑๐๐๐

๕ สิงหาคม ๒๕๕๒

เรื่อง อนุญาตให้ใช้เครื่องมือวิจัย

เรียน คณบดีคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

อ้างถึง หนังสือคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ที่ ศธ ๐๕๑๒.๑๑/๑๓๘๘
ลงวันที่ ๓ กรกฎาคม ๒๕๕๒

ตามหนังสือที่อ้างถึงคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย โดยนิสิตขั้นปริญญาดุษฎีบัณฑิต คณะพยาบาลศาสตร์ จุฬาลงกรณ์ มหาวิทยาลัย ได้ดำเนินการวิจัยเพื่อเสนอเป็นดุษฎีนิพนธ์ เรื่อง "ผลของโปรแกรมการจัดการกับอาการด้วยตนเองต่อการกำเริบของอาการทางจิตในผู้ที่เป็นโรคจิตเภทเรื้อรัง" ขออนุญาตใช้เครื่องมือการวิจัย คือ แบบประเมินอาการทางจิต โดยมีรองศาสตราจารย์ ดร.จินตนา ยูนิพันธุ์ เป็นอาจารย์ที่ปรึกษาดุษฎีนิพนธ์ และมีรองศาสตราจารย์ ดร.สุรีพร ธนศิลป์ เป็นอาจารย์ที่ปรึกษาดุษฎีนิพนธ์ร่วม นั้น

กรมสุขภาพจิต พิจารณาแล้วเห็นว่าวิทยานิพนธ์ดังกล่าวเป็นประโยชน์ต่อการศึกษาและดำเนินงานของจุฬาลงกรณ์มหาวิทยาลัย จึงอนุญาตให้ใช้เครื่องมือวิจัยฯ ของกรมสุขภาพจิต ในการทำวิทยานิพนธ์ดังกล่าว และขอให้จัดส่งวิทยานิพนธ์ จำนวน ๑ เล่ม มายังกรมสุขภาพจิต

จึงเรียนมาเพื่อโปรดทราบและดำเนินการในส่วนที่เกี่ยวข้องต่อไปด้วย จะเป็นพระคุณ

เรียน คณบดี ผ่านรองคณบดีฝ่าย วิชาการ
☑ เพื่อทราบ และเห็นควรแจ้งอาจารย์ จินตนา และ อ.สุรีพร
☐ เพื่อทราบ และเห็นควรสำเนาให้อาจารย์ ทราบต่อไป
☐ เพื่อทราบ และเห็นควรขออนุญาตอาจารย์

ขอแสดงความนับถือ

(นายเกียรติภูมิ วงศ์รจิต)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมสุขภาพจิต

สำนักพัฒนาสุขภาพจิต
โทร. ๐ ๒๕๙๐ ๘๒๐๗
โทรสาร. ๐ ๒๕๙๑ ๑๓๘๔

13 ส.ค. 2552 14 ส.ค. 52 14 ส.ค. 52 16 ส.ค. 2552

บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล
25/25 ถ.พุทธมณฑลสาย 4 ศาลายา นครปฐม 73170
โทร. 0-2441-4125 ต่อ 109-111 โทรสาร 0-2441-9834

ที่ ศธ 0517.02/ 2024

วันที่ 31 มีนาคม 2552

เรื่อง อนุญาตให้ใช้เครื่องมือวิจัย

เรียน คณบดีคณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

อ้างถึง หนังสือ ที่ ศธ 0512.11/0215 ลงวันที่ 6 กุมภาพันธ์ 2552

ตามที่ นางสุดาพร สถิตยุทธการ นักศึกษาหลักสูตรปริญญาดุษฎีบัณฑิต คณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย มีความประสงค์จะขออนุญาตใช้เครื่องมือวิจัย คือ 1) แบบสัมภาษณ์การรับรู้อาการนำของโรค 2) แบบสัมภาษณ์การจัดการกับอาการด้วยตนเองของผู้ป่วยจิตเภท ของ นางวยุณี ช้างมิ่ง ซึ่งเป็นส่วนหนึ่งวิทยานิพนธ์ตามหลักสูตรพยาบาลศาสตรมหาบัณฑิต สาขาวิชาสุขภาพจิตและการพยาบาลจิตเวชศาสตร์ คณะพยาบาลศาสตร์ และบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล พ.ศ. 2546 เรื่อง " ความสัมพันธ์ระหว่างการรับรู้อาการนำ การสนับสนุนทางสังคมและการจัดการกับอาการด้วยตนเองของผู้ป่วยจิตเภท " ซึ่งมี รศ.ดร. ยาใจ สิทธิมงคล ทำหน้าที่อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก

บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล ได้พิจารณาแล้วไม่ขัดข้องอนุญาตให้ นางสุดาพร สถิตยุทธการ ใช้เครื่องมือวิจัยดังกล่าวได้เนื่องจากเป็นการศึกษาวิจัยทางด้านวิชาการ แต่ทั้งนี้ขอได้โปรดระบุให้ชัดเจนว่าใช้เครื่องมือวิจัยทุกแบบสอบถามหรือบางส่วน และให้ระบุว่าเครื่องวิจัยดังกล่าวมาจากวิทยานิพนธ์ของนักศึกษาหลักสูตรพยาบาลศาสตรมหาบัณฑิต มหาวิทยาลัยมหิดล ถ้าหากมีการละเมิดเกิดขึ้นข้าพเจ้ายินยอมให้ คณะพยาบาลศาสตร์ดำเนินการตามกฎหมาย และขอให้ดำเนินการชำระค่าบริการขอใช้เครื่องวิจัยดังกล่าวข้างต้น จำนวน 400 บาท (สี่ร้อยบาทถ้วน) สำหรับเครื่องมือวิจัย 2 ชุด โดยส่งธนาณัติสั่งจ่าย **ป.ณ. ศิริราช** ในนาม

หลักสูตรบัณฑิตศึกษา (เพื่อการขอใช้เครื่องมือวิจัย)
คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล
เลขที่ 2 ถนนพรานนก แขวงศิริราช
เขตบางกอกน้อย กรุงเทพมหานคร 10700
โทร. 0-2419-7466-80 ต่อ 1411, 1412

เรียน คณบดี ผ่านรองคณบดีฝ่ายวิชาการ

☑ เพื่อทราบ และเห็นควรแจ้งอาจารย์ จินตนา ยูนิพันธ์

☐ เพื่อทราบ และเห็นควรดำเนินการให้อาจารย์ ... ทราบต่อไป

☐ เพื่อทราบ และเห็นควรขออนุญาตอาจารย์ที่ปรึกษาวิทยานิพนธ์

27 เม.ย. 2552

27 เม.ย. 52

27/04/09

ขอแสดงความนับถือ

(ศาสตราจารย์ นพ.บรรจง มไหสวริยะ)
คณบดีบัณฑิตวิทยาลัย

28 เม.ย. 2552

หมายเหตุ ผู้ที่มาติดต่อเรื่องเครื่องมือวิจัยที่หลักสูตรฯ ให้ติดต่อตั้งแต่เวลา 8.30-14.30 น.

BIOGRAPHY

Sudaporn Stithyudhakarn was born in 1969. She received a BSN from nursing college of Mission College in 1991. She got A Master of Arts in Counseling Service from Rider University, New Jersey, USA in 1995. Sudaporn had 1 year of clinical experience in acute and chronic care nursing (Adult Nursing) and 10 years of working as an instructor in the field of mental health and psychiatric nursing at faculty of nursing, Asia Pacific International University (Mission College). She had received the scholarship from the Asia Pacific International University (Mission College) to study Philosophy Program in Nursing Science, Faculty of Nursing, Chulalongkorn University since 2006-2010.