UNIVERSITI SAINS MALAYSIA

FACTORS INFLUENCING RELAPSE OF SCHIZOPHRENIA IN HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM), KELANTAN

by

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Dissertation submitted in partial fulfillment of the requirements for the degree of Bachelor of Health Sciences (Nursing)

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CERTIFICATE

This is to certify that the dissertation entitled Factors Influencing Relapse of Schizophrenia in Hospital Universiti Sains Malaysia (HUSM), Kelantan is the bonafide record of research work done by Ling Shin Ru 81533 during the period of July 2007 to April 2008 under my supervision. This dissertation submitted in partial fulfillment for the degree of Bachelor of Health Sciences (Nursing). Research work and collection of data belong to Universiti Sains Malaysia.

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FAKTOR MEMPENGARUHI PENYAKIT BERULANG DI KALANGAN PESAKIT SKIZOFRENIA DI HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM), KELANTAN

ABSTRAK

Pesakit skizofrenia yang mengalami penyakit berulang kerap kali terpaksa menghabiskan 15% hingga 20% daripada kitar hayat mereka di institusi psikiatri dan memenuhi 1/3 daripada semua katil di institusi psikiatri (Maurer & Biehl 1988 as cited in Ayuso-Gutierrez & del Rio Vega, 1997). Penyakit skizofrenia yang berulang mendatangkan banyak kesan seperti meningkatkan hospitalisasi, menigkatkan kos rawatan penyakit, dan menambahkan beban ke atas ahli keluarga serta ahli profesional kesihatan. Namun, pencegahan penyakit skizofrenia berulang amatlah penting untuk mengelakkan hasil jangka panjang yang buruk. Maka, adalah amat penting untuk mengenalpasti faktor yang mempengaruhi skizofrenia berulang. Justeru, kajian ini bertujuan untuk mengenalpasti faktor yang mempengaruhi seperti data sosiodemografi, status kesihatan dan tingkah laku pesakit, dan sokongan keluarga serta perkaitannya dengan skizofrenia berulang. Kerangka kerja dalam kajian ini dikembang dan dimodifikasi daripada Ariff (2000). Kajian ini berbentuk keratan lintas dan bercirikan deskriptif. Populasi sasaran ialah pesakit dalam wad psikiatri di Hospital Universiti Sains Malaysia (HUSM). Sebanyak 13 orang pesakit yang memenuhi kriteria penerimaan telah menyertai kajian ini. Setelah keizinan diperoleh daripada penjaga pesakit, penyelidik menemuramah penjaga berdasarkan borang soal selidik dan mengakses simptom

yang ditunjukkan oleh pesakit dengan Positive and Negatif Syndrome Scale (PANSS). Data dianalisis menggunakan statistik deskriptif dan pembezaan: ujian t bebas dan ANOVA. Hasil kajian menunjukkan terdapat perkaitan antara skizofrenia berlaku semula dengan jantina (t=-2.20, p=0.05), status kehidupan (t=2.71, p=0.02) dan kekerapan ubatan dalam sehari (t=2.14, p=0.05). Kajian ini mendapati faktor utama yang mempengaruhi skizofrenia berlaku semula seperti jantina, status kehidupan dan kekerapan ubatan dalam sehari. Maka, diharapkan hasil kajian ini dapat membantu jururawat untuk memberi penjagaan dan perawatan yang lebih efektif kepada pesakit skizofrenia justeru dapat mengelakkan skizofrenia daripada berlaku semula. Walau bagaimanapun, dicadangkan bahawa kajian yang akan datang lebih fokus kepada saiz sampel yang lebih besar dan kumpulan etnik berlainan.

FACTORS INFLUENCING RELAPSE OF SCHIZOPHRENIA IN HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM), KELANTAN

ABSTRACT

Schizophrenic patients relapse so frequently that they must spend 15 to 20% of their time in a psychiatric institution and occupy a full third of all psychiatric beds (Maurer & Biehl 1988 as cited in Ayuso-Gutierrez & del Rio Vega, 1997). Relapse of schizophrenia has many consequences such as increased hospitalization, increased cost of illness, and increased burden on family members and health care providers as well. However, prevention of relapse is important to prevent poor long-term outcome. Therefore, it is crucial to find out the underlying factors which can influence relapse of schizophrenia. Thus, this study aims to determine the influencing factors such as sociodemographic data, health status and patient attitude; and family support and their association with relapse schizophrenia. The conceptual framework that guided this study was developed and modified from Ariff (2000). This was a cross-sectional, descriptive study. The target population was inpatient at Psychiatric Ward in Hospital Universiti Sains Malaysia, (HUSM), Kelantan. The study recruited 13 psychiatric inpatients (mean age: 37.8) and caregivers who met the inclusion criteria. After informed consent was taken from caregivers, the researcher interviewed the caregiver using demographic questionnaire and assessed the presence of symptoms of schizophrenic patient using Positive and Negative Syndrome Scale (PANSS). The data were analyzed using descriptive statistics and inferential statistics:

Independent t-test and ANOVA. Findings of this study indicated that there were association between sex (t=-2.20, p=0.05), living status (t=2.71, p=0.02), and frequency of oral medication per day on relapse of schizophrenia (t=2.14, p=0.05). This study highlighted some important influencing factors such as sex, living status, and frequency of oral medication per day that have association on relapse of schizophrenia. It is hoped that with the findings nurses can provide more effective care prevention to reduce relapse for schizophrenia patients. However, it is suggested that future research should focus on larger samples and on different ethnic groups.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Schizophrenia refers to a major mental disorder which involves a complex set of disturbances of thinking, perception, affect, and social behaviour (Barbato, 1998). These disturbances have pervasive impact on many areas of life functioning and subsequently on health related quality of life (Gee, Pearce, & Jackson, 2003).

Globally, the incidence of schizophrenia is one per cent of the population (Gee, Pearce, & Jackson, 2003). Schizophrenia occurs in all societies regardless of race, religion, and culture. However, there are some variations in terms of incidence and outcomes for different groups of people (*Schizophrenia Facts and Statistics*, 2004). The estimated population of people who are living with schizophrenia at any given time was found to be the highest in relation to other chronic well-known diseases. This is shown in figure 1.1

In addition, the nationwide readmission rate for individuals with a severe and persistent mental illness is approximately 50-55%. Moreover, a significant percent of those individuals have a diagnosis of schizophrenia or bipolar disorder (Saenz, 1998). Maurer and Bieh, 1988 (cited from Ayuso-Gutierrez & del Rio Vega, 1997) stated that schizophrenic patients relapse so frequently that they must spend 15-20% of their time in a psychiatric institution and occupy a full third of all psychiatric beds. Therefore, it is crucial to find out the underlying factors which influencing relapse of schizophrenia.

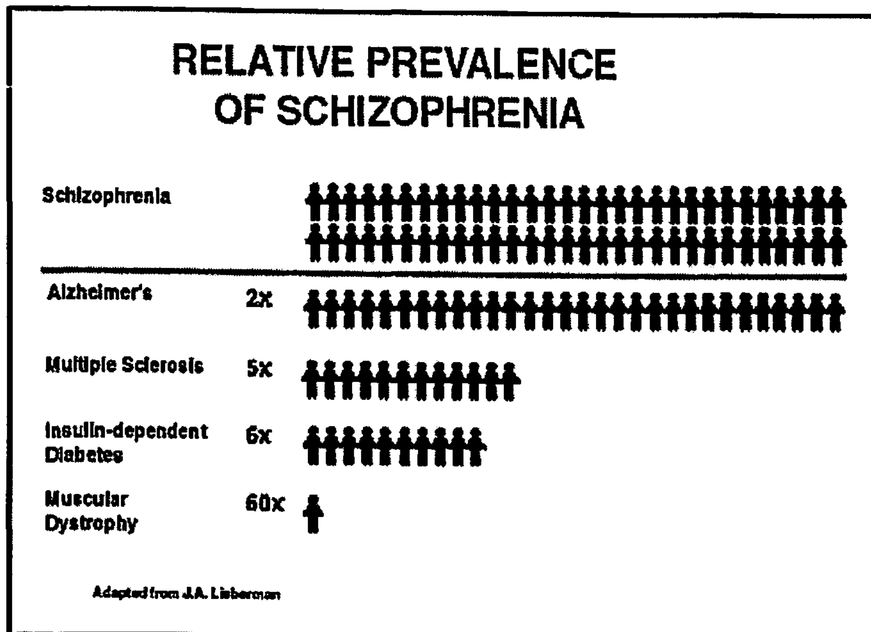

Figure 1.1: Prevalence of schizophrenia compared to other well-known diseases

(Source: BCSS cited from *Schizophrenia Facts and Statistics*, 2004).

Typically, the onset of schizophrenia is in late adolescence or early adulthood, between 15 and 25 years of age (*Schizophrenia Facts and Statistics*, 2004). Onset of schizophrenia is less common for people below 10 years of age or above 40 years of age. Men tend to get schizophrenia slightly earlier than women (*Schizophrenia Facts and Statistics*, 2004). The peak age of onset in men is between the ages of 15 and 25 and in women is between ages 25 and 35 (Carson 2000, p.643). The figure 2 shows the general age of onset trends for schizophrenia in men and women according to a representative study.

1.2 Problem Statement

In HUSM, the number of cases admitted for treatment of schizophrenia at psychiatry ward in 2005 was 196 and 163 cases in 2006. However, the number of cases was already increased to 146 in 2007 (until August). Meanwhile, at psychiatry clinic, the number of follow up cases for schizophrenia in 2006 was

3368 (number of patient was 1205). In 2007 (until August), the number of follow up cases for schizophrenia was 2033 (number of patient was 954).

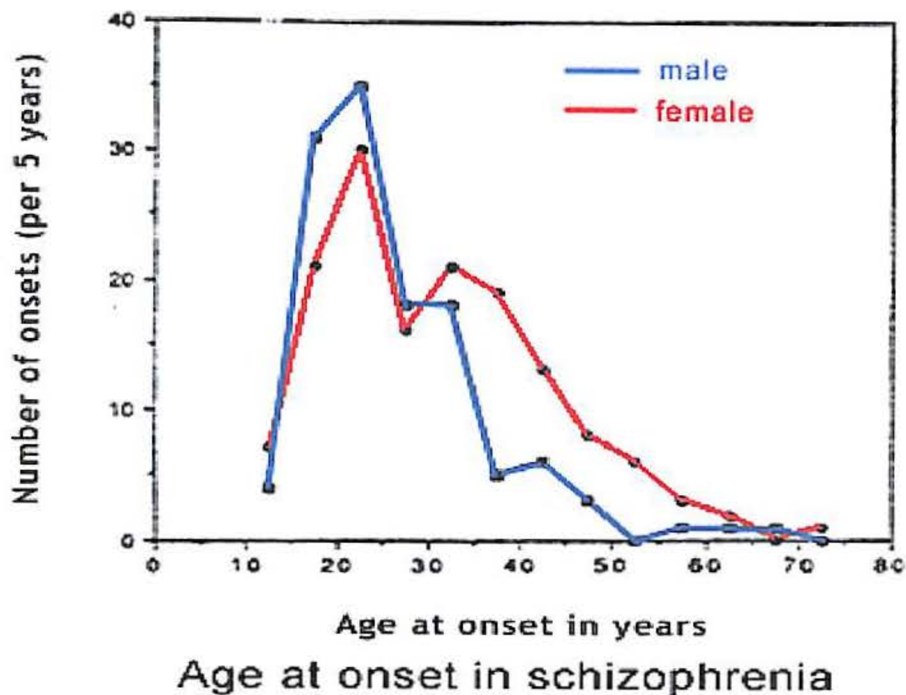

Figure 1.2: Age of onset in schizophrenia

(Source: A typological model of schizophrenia based on age at onset, sex and familial morbidity. *Acta Psych8atr. Scand.* 89, 135-141 1994 cited from *Schizophrenia Facts and Statistics*, 2004).

Relapse of schizophrenia has many consequences such as increased hospitalization, increased cost of illness, and increased burden on family members and health care providers as well. Moreover, variety of interventions was implemented to prevent its relapse. However, relapse of schizophrenia was still happening and remain as an issue and unresolved problem. Therefore, this study would like to identify the factors influencing relapse of schizophrenia.

The conceptual framework of Ariff (2000) was used to explain researcher's conceptual framework which was as follow:

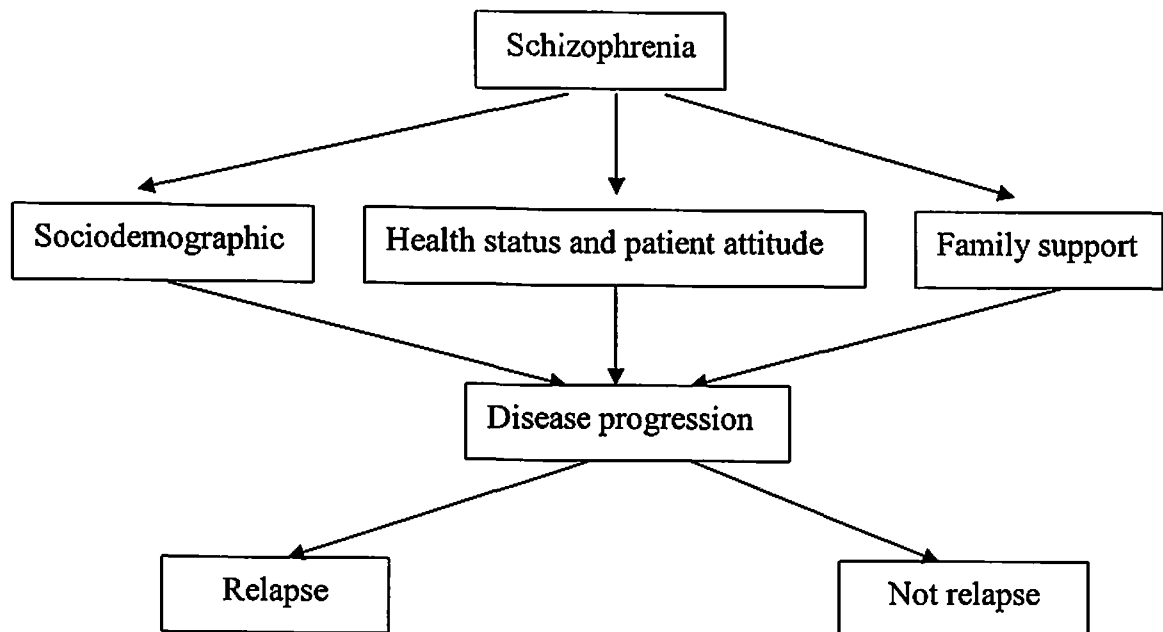

Figure 1.3: Conceptual framework to explain relapse of schizophrenia

(Source: Ariff 2000)

1.3 Objectives of the Study

General objective is to determine the factors influencing relapse of schizophrenia in Hospital Universiti Sains Malaysia (HUSM), Kelantan.

1.3.1 Specific Objectives

1. To determine the types of factors influencing relapse of schizophrenia in Hospital Universiti Sains Malaysia (HUSM), Kelantan.
2. To determine the association between selected sociodemographic data and relapse of schizophrenia.
3. To determine the association between selected health status and patient attitude and relapse of schizophrenia.
4. To determine the association between family support and relapse of schizophrenia.

1.4 Research Questions

1. What are the types of factors influencing relapse of schizophrenia?
2. Is there an association between selected sociodemographic data and relapse of schizophrenia?
3. Is there an association between selected health status and patient attitude and relapse of schizophrenia?
4. Is there an association between family support and relapse of schizophrenia?

1.5 Hypothesis

H_0 – There is no association between selected sociodemographic data and relapse of schizophrenia.

H_A – There is an association between selected sociodemographic data and relapse of schizophrenia.

H_0 – There is no association between selected health status and patient attitude and relapse of schizophrenia.

H_A – There is an association between selected health status and patient attitude and relapse of schizophrenia.

H_0 – There is no association between family support and relapse of schizophrenia.

H_A – There is an association between family support and relapse of schizophrenia.

At the 5% level of significance, all H_0 is rejected if $p<\alpha$ (0.05).

Dependent variable is relapse of schizophrenia.

Independent variables are sociodemographic data, health status and patient attitude and family support.

1.6 Definition of Terms

Schizophrenia

Schizophrenia is a psychotic disorder which is characterized by severely impaired thinking, perception, affect and social behavior (*Schizophrenia*, 2007). In this study, schizophrenia refers to patients who had been diagnosed with schizophrenia and subtypes of schizophrenia which include paranoid, catatonic, undifferentiated and residual.

Relapse

Relapse is a falling back into a former state, especially after apparent improvement (*The Free Dictionary*, 2007). In this study, relapse of schizophrenia refers to presence of positive, negative and general psychopathology symptoms of schizophrenic patient during the course of interview. Positive symptoms such as delusions, hallucinations and hostility. Negative symptoms such as blunted affect, emotional withdrawal, and stereotyped thinking. General psychopathology symptoms such as anxiety, guilt feelings, and uncooperativeness (Carson, 2000).

1.7 Significance of the Study

The finding of this study will contribute to the followings:

Health care providers such as nurses will have more awareness on types of factors which influencing relapse of schizophrenia. With this awareness, it is

hoped that nurses will be more motivated to plan ahead effective strategies for avoidance and occurrence of relapse.

The finding in this study will provide a basis for further research on medication compliance, family support and prevention of relapse. Besides, it is hoped that the finding in this study will be related to knowledge which is included in nursing education.

CHAPTER 2

LITERATURE REVIEW

2.1 Schizophrenia

The term schizophrenia came from the two Greek words which mean 'split mind' (*Schizophrenia*, 2007). Schizophrenia was first introduced by a Swiss psychiatrist, Eugen Bleuler around 1908 (*Schizophrenia*, 2007). It referred to a psychotic disorder which was characterized by severely impaired thinking, perception, affect and social behavior (*Schizophrenia*, 2007). Bleuler was best known for identifying the four "A's" associated with schizophrenia which was as follow (Carson 2000, p.637):

Affect

Affect of a schizophrenic patient was disturbed, causing in a minimal change in facial expression and the consistent use of a monotonous tone of voice. Typically, patient was unable to joke or take part in a conversation. Sometimes, the patient's affect was irrelevant to the topic discussed. Moreover, patient may become hostile when threatened.

Association

Association between thoughts may be disturbed. Sometimes, thought blocking may happen. This can be seen by a patient's difficulty in giving a response to a question.

Autism

Autism may appear in a schizophrenic patient. The patient was preoccupied with self and inner experience. This cause the patient cannot relate to stimulation from the surrounding environment.

Ambivalence

Ambivalence may demonstrated by a patient with schizophrenia. The patient showed strong mixed feelings about a certain object, person or situation which making it nearly impossible to make decisions (Carson 2000, p.637).

There were four phases in schizophrenia: (1) the prodromal phase was present prior to the acute phase; (2) the acute phase occurred when the patient experienced psychotic symptoms; (3) the stabilization phase occurred when the patient was in treatment and experiences a decreasing severity of the symptoms; and (4) the residual phase occurred after treatment when the patient was either without symptoms or the symptoms were experienced with less intensity (Carson 2000, p.647).

2.1.1 The symptoms of schizophrenia

The symptoms of schizophrenia were divided into three broad categories which were positive, disorganized and negative symptoms (Carson 2000, p.638). Positive symptoms such as delusions and hallucinations were present in schizophrenic person but absent in normal person. Disorganized symptoms were dimension of illness independent of the positive symptoms. For example, confused thinking and disorganized speech, disorganized behavior, and disorganized perceptions. Negative symptoms were altered emotional responses such as flat or blunted emotions, lack of motivation or energy, lack of

interest in things and limited speech (Frances, Docherty, & Kahn 1996 cited from Carson 2000, p.638).

According to Barbato (1998), diagnosis of schizophrenia was made under the diagnostic criteria of the Diagnostic and Statistical Manual of the American Psychiatric Association – Fourth Edition (DSM –IV) which was as follow:

Characteristic symptoms

Two or more of the following, each present for at least one month period (or less if treated successfully): (1) delusions, (2) hallucinations, (3) disorganized speech, (4) catatonic behaviour and (5) negative symptoms, i.e. anhedonia, avolition, alogia or flat affect.

Social or occupational dysfunction

For a certain period of time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset.

Duration

Signs of the disturbance appear continuously for at least 6 months. This 6 months period must include at least 1 month of symptoms (or less if successfully treated) that meet criterion A.

Schizoaffective and mood disorder exclusion

Schizoaffective and mood disorder were excluded because either (1) no major depressive, manic or mixed episodes had occurred concurrently with the active-phase symptoms or (2) if mood episodes had occurred during active-phase symptoms, their total duration had been brief relative to the duration of the active and residual periods.

Substance or general medical condition exclusion

The disturbance was not related to the direct physiological effect of a substance (e.g. drug abuse) or general medical condition.

Relationship to a pervasive developmental disorder

If there was a history of pervasive developmental disorder, the additional diagnosis of schizophrenia was made only if prominent delusions or hallucinations were also present for at least a month (or less if treated successfully).

2.2 The Nature of Relapse

Generally, the term relapse referred to a deterioration or recurrence of positive rather than negative symptoms (Ayuso-Gutierrez & del Rio Vega 1997). Relapse must considered the following factors: (1) the patient's condition before the original onset of illness; (2) his or her level of functioning before the present episode; (3) the severity of the relapse in terms of symptom severity, duration and interference with personal functioning; and (4) the appearance of any new symptoms or behavior patterns (Ayuso-Gutierrez & del Rio Vega 1997). According to Johnstone 1992 (cited from Ayuso-Gutierrez & del Rio Vega 1997), relapse was defined as the reappearance of schizophrenic symptoms in a patient who had been free of them following the initial episode and the exacerbation of persistent positive symptoms.

2.3 Factors determining relapse of schizophrenia

Over the years, numerous studies had identified a variety factors associated with rehospitalization (Saenz, 1998) due to relapse. These factors included sociodemographic, family's attitude, and medication nonadherence.

Sociodemographic factor

Kaplan and Sadock, 1994 (cited from Ariff 2000) stated that the peak age of onset for majority of schizophrenia patients were young. In the case of marital status, study done by Ariff (2000) reflected many patients were single. However, Wilcox et al., 1995 (cited from Ariff 2000) found that 52% of male psychiatric outpatients living alone failed to take drug compared to 35% of those living with their wives. Although majority patients had attained secondary level of education but they are either unemployed or in low paid job (Ariff, 2000).

Family's attitude factor

A study done by Giron and Beneyto, 1998 found that relapse in schizophrenia was significantly associated with poor empathic attitude of the patients' relatives. It was a 2 year prospective cohort study which involved 80 schizophrenia patients. The study was aimed to measure empathy in the relatives of schizophrenia patients and to establish the relationship between lacks of empathy and relapse.

Family studies (Moline et al., 1985; McCreadie, 1992 cited from Ayuso-Gutierrez & del Rio Vega 1997) have demonstrated that schizophrenic patients who returned to home environments where there was a relative who was critical, hostile, or emotionally over involved tend to have a high relapse rate.