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POSTER PRESENTATION

QUALITY OF LIFE OF SCHIZOPHRENIA PATIENTS' IN PRIVATE REHABILITATION CENTERS IN YOGYAKARTA

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ABSTRACT

Background: Schizophrenia is the most severe functional psychosis that can lead to the disorganization of personality, lost contact of reality, abnormalities of thought and behavior. Quality of life is an important outcome variable of several chronic diseases, including schizophrenia. The quality of life is indicated by the results of objective assessment, the higher value of quality of life is better.

Objective: The aim of this study was to determine the quality of life of schizophrenia patients.

Methods: This study was carried out by descriptive observational design. The data was collected prospectively during June to September 2012 using questionnaire, the Short Form 36 (SF-36). Data was analyzed by univariate analysis for describing the distribution of patients and bivariate analysis for comparing the quality of life.

Outcome measured: Quality of life of schizophrenia patients.

Results: Result of this study showed that there were 4 schizophrenia patients in Al-Islamy (50% male; 50% female) and there were 32 subject patients in Nurul Haromain (62.5% male; 37.5% female). The largest age range were 20-45 years (72.2%); the schizophrenia patients with no history of NAPZA were 63.9%. Mostly, there were from senior high school (50%). The mean of quality of life in the aspect of Physical Health Component (PHC) and Mental Health Component (MHC) in Al-Islamy were 52.2 ± 8.6; 44.6 ± 4.8 with a significance value of 0.367 (p=0.05); 0,006 (p=0.05), respectively and Nurul Haromain were 55.5 ± 41.4; 46.8 ± 10.2 with a significance value of 0.288 (p=0.05), 0.314 (p=0.05). The comparison of the two rehabilitation centers with Independent t-test showed that there were no significance value of PHC 0.662 (p=0.05) and there were significance value of MHC 0.029 (p=0.05).

Conclusion: In conclusion, there was a significant difference between mental health aspects MHC of the quality of life in Nurul Haromain and Al-Islamy, which was better in Nurul Haromain.

Keywords: Quality of life, Schizophrenia, Rehabilitation, SF-36.

INTRODUCTION

Schizophrenia affects about 1% people in the world during their lifetime (WHO, 2001), based on *Riset Kesehatan Dasar* (Indonesian Basic Research) 2007, Indonesian people who has psychiatric disorder (psychosis) was about 1 million people (0,46%), and who has emotional disorder (depression and anxiety) was 19 million people (11,6%) (Gani, 2010). In RSJ Grhasia and RSUP Sardjito Yogyakarta, there were 1314 patients with mental disorder (Perwitasari, 2008). The comparison of onset before 30 years old is 90% in men and 70% in women (Awad et al., 1997). The men onset of the illness tend to earlier on 15-25 years old, while women on 25-35 years old (Kaplan, 1997; Atalay and Atalay, 2006). The Interaction factor with environment and genetic was suspected as the etiology of schizophrenia. Stress may be the risk factor of behavior, and genetic may caused the risk of constitutional (Walker et al., 2004). Schizophrenia, in globally, is the mental disorder which is too expensive to personal, economic, and social burden (Montgomery et al., 2013).

Schizophrenia treatment in cognitive and mental is important, but the quality of life can be the most valuable (Gill and Feinstein, 1994). Quality of life of schizophrenia patients is aimed for assessing the achievement of therapy, evaluating the medication effects in clinical psychiatry, nursing and rehabilitation (Coons and Kaplan, 1992; Sidlova et al., 2011). In Yogyakarta, there is private rehabilitation centers which accommodate schizophrenia patients as the place for nursing and giving both the medical and spiritual treatment.

In this study, we assesed the quality of life to the patients with schizophrenia on physical aspect and mental aspect which has never been done in this rehabilitation centers. This study was aimed to evaluate the treatment for improving the schizophrenia impact on *Health Related Quality of Life* (HRQoL). One of the study assess the quality of life is using the SF-36 questionnaire (Ware et al., 1994; Perwitasari, 2008) which has two primary scale on the physical and mental health aspects (Folsom et al., 2009).

METHODS

Subject

This study was carried out by descriptive observational design with prospectively data taking. The subjects of this study was schizophrenia patients' in the private rehabilitation centers in Al-Islamy and Nurul Haromain in Kulon Progo Regency. The subject of this research were adult (18-65 years old), male or female, which was cooperative and communicable from approximately 60 patients in Nurul Haromain. Duration of research was June to September 2012.

Data Collection

This study used the primary data which was obtained from the research subjects using SF-36 questionnaire. The questions were read by the researcher and filled based on the respondens answer, in order to help the responden if only felt difficult to answer by themselves, to make easier to unsterstand the questions and to eliminate the difference of perception.

Data Tabulation

The data was tabulated online to *http://www.sf-36.org/demos/SF-36.html*, for obtaining mean of each domain of quality of life. The tabulation by manual also can be process in two steps. First, define the answers into numeric scale in 0-100 scale. Secondly, each numeric scale grouped into 8 domains (general health, physical functioning, role-physical, role-emotional, social functioning bodily pain, vitality, and mental health to obtain mean from each domain. *Physical Health Component* (PHC) parameter is mean of each domain group (general health physical functioning, role-physical, bodily pain) and *Mental Health Component* (MHC) of domain group (vitality, role-emotional social functioning, and mental health). The

higher PHC and MHC shows better quality of life in 0-100 scale, which standardized by mean of population 50 and SD 10 (Ware, 2000).

Statistical Analysis

The statistical analysis was to describe the quality of life by univariate and bivariate. The univariate analysis was to describe the distribution of patients (sex, age, history, and educational) using the *Descriptive Frequencies* analysis and *Crosstabs*. The bivariate analysis was to identify the quality of life on PHC and MHC, based on the visit time (1^{st}, 2^{nd}, 3^{rd}) and rehabilitation centers (Al-Islamy, Nurul Haromain) place using *ANOVA* and *Independent sample t-test*.

RESULTS AND DISCUSSION

1. Patient Distribution

Besides of the schizophrenia patients in the private rehabilitation centers had a history of NAPZA (*Narcotics, Alcohol, Psychotropic Drugs, and other Addictive Substances*), the data of characteristics socio-demographic are also grouped into gender, age, history, and education. Test analysis using *Descriptive Frequencies* is described in Table I.

A total of 36 patients were obtained with the proportion of men (61,1%), in age 20-45 years (72,2%), no history of NAPZA (63,9%), and were dominated has senior high school education background (50%). The similarity and difference in socio-demographic characteristics in the two rehabilitation centers reflected the suitability with result of previous studies, which schizophrenia appears before the age of 30 years with a ratio of 90% men and 70% women (Awad et al., 1997). The patients' quality of life is characterized into five criteria as on table II. The higher the value the quality of life, showed a better quality of life. The results of this study are consistent with the results of studies that say that the interaction between environmental and genetic factors may be as etiologic the onset of schizophrenia (Walker et al., 2004), in which the history of (NAPZA, Non NAPZA) and the level of patient education can be incorporated as an environmental factor .

Determining the levels of quality of life in PHC aspects and MHC on each visits, data on the socio-demographic characteristics were compared with the level of quality of life (perfect, high, moderate, low, mortality) using crosstabs test. In both health aspect of schizophrenia patients was dominated by the low quality of life. There was one patient who shows aspects of physical health with male gender aged 20-45 years who had a history of NAPZA and low educated on the second visit with a level of quality of life is high. Table III shows the number of levels of quality of life (high, moderate, low) on each visit. When viewed from the results overall this study, the schizophrenia patients in private rehabilitation centers has a level of quality of life better in female patients and low levels of education, because the amount was less than that of male patients and high levels of education. These results were consistent with the theory in which women and low levels of education have a good quality of life (Bobes and Garcia-Portilla , 2005; Bobes et al., 2007). The research Hamaideh et al., (2013), there was a positive correlation in the quality of life of schizophrenia patients with education levels and a negative correlation with the severity of psychiatric symptoms, duration of treatment, and duration of untreated illness. But according Badura-Brzoza, et al., (2012) there was no socio-demographic factors that affect quality of life.

Tabel I. Socio-demographic characteristics in private rehabilitation centers in Yogyakarta

Characteristic	Al-Islamy	Nurul Haromain	Total (n=36)
	Frequency (%) (n=4)	Frequency (%) (n=32)	Frequency (%)
Sex			
Men	2 (50%)	20 (62,5%)	22 (61,1%)
Women	2 (50%)	12 (37,5%)	14 (38,9%)
Age (years old)			
< 20	0 (0%)	1 (3,1%)	1 (2,8%)
20-45	1 (25%)	25 (78,1%)	26 (72,2%)
>45	3 (75%)	6 (18,8%)	9 (25%)
History			
NAPZA	4 (100%)	9 (28,1%)	13 (36,1%)
Non NAPZA	0 (0%)	23 (71,9%)	23 (63,9%)
Education			
Non educated	0 (0%)	2 (6,2%)	2 (5,6%)
Elementary school	0 (0%)	5 (15,6%)	5 (13,9%)
Junior high school	1 (20%)	6 (18,8%)	7 (19,4%)
Senior high school	3 (80%)	15 (46,6%)	18 (50%)
Diploma degree	0 (0%)	1 (3,1%)	1 (2,8%)
Bachelor degree	0 (0%)	3 (9,4%)	3 (8,3%)

Table II. The quality of life category (WHO, 1996)

Total score quesioner	Category of quality of life
100	Perfect
80 – 99	High
56 – 79	Moderate
1 – 55	Low
0	Mortality

Table IIIa. Quality of life of schizophrenia patients in private rehabilitation centers in the PHC aspects with analysis using *Crosstabs*

Characteristic	Visit 1st			Visit 2nd		Visit 3rd	
	Moderate	Low	High	Moderate	Low	Moderate	Low
Sex							
Men	6	16	1	8	13	8	14
Women	3	11	0	5	9	5	9
Age							
< 20	0	1	0	0	1	1	0
20-45	8	18	1	10	15	9	17
>45	1	8	0	3	6	3	6
History							
NAPZA	3	10	1	3	0	4	9
Non NAPZA	9	17	0	10	13	9	14
Education							
Low education	3	11	1	5	8	4	10
Higher education	6	16	0	8	14	9	13

Table IIIb. Quality of life of schizophrenia patients in private rehabilitation centers in the MHC aspects with analysis using *Crosstabs*

Characteristic	Visit 1st		Visit 2nd		Visit 3rd	
	Moderate	Low	Moderate	Low	Moderate	Low
Sex						
Men	5	17	3	19	4	18
Women	4	10	3	11	1	13
Age (years old)						
< 20	0	1	1	0	1	0
20-45	7	19	3	23	3	23
>45	2	7	2	7	1	8
History						
NAPZA	2	11	1	12	0	13
Non NAPZA	7	16	5	18	5	18
Education						
Low education	4	10	1	13	3	11
Higher education	5	17	5	17	2	20

2. The quality of life in PHC aspects and MHC based on visit time

Schizophrenia is one of the severe disease, Bernhard mentioned the meaning of quality of life in patient with severe disease is not fixed and constant all of time. This study assesses the quality of life based on the frequency of visits shown in table IV of using *ANOVA* analysis. The result shows that quality of life on each visit time not always same, It shows with suitability to result of study Bernhard et al., (2004), since the value of quality of life is not fixed and constant on two health aspects. The value of PHC aspects was the lowest on the third visit at Al-Islamy 47.0 (13.1) and the highest was on the second visit in Nurul Haromain 64.8 (70.4), which were included in the low and moderate level of quality of life, respectively. The aspects of MHC was the lowest on the third visit at Al-Islamy 39.8 (1.4) and the highest was on the first visit at Al-Islamy 49.1 (3.1), which were included in the low level of quality of life. Some factors may affect the physical health are job capacity, mobility, energy, time to take a rest, and distress. Some factors may affect the mental health of psychological in general are ability to concentrate, confidence, positive or negative thinking, and beliefs (Perwitasari and Muttaqien, 2012).

The result comparison shows the significant differences between time of visit 1st, 2nd, and 3rd in Nurul Haromain on the PHC aspect (p=0.006).

Tabel IV. Quality of life in PHC aspect and MHC based on visit time with analysis using *ANOVA*

Visit	Al-Islamy (n=4)				Nurul Haromain (n=32)			
	1st	2nd	3rd	p value	1st	2nd	3rd	p value
SF-36 Summary (Mean ± SD)								
PHC	54.3 (5.6)	55.2 (3.7)	47.0 (13.1)	0.367	49.2 (10.5)	64.8 (70.4)	52.5 (6.5)	0.006
MHC	49.1 (3.1)	44.8 (3.9)	39.8 (1.4)	0.288	48.8 (12.2)	46.5 (8.8)	44.9 (9.4)	0.314

3. Quality of life in PHC aspect and MHC based on the rehabilitation centers

Table V shows the comparison of the quality of life of schizophrenia patients in aspects *Physical Health Component* (PHC) and *Mental Health Component* (MHC).

The value of PHC in Al-Islamy had a mean 52.2 (8.6) and Nurul Haromain 55.5 (41.4) which were included in the low and moderate level of quality of life which significant difference (p=0.662). While the aspects of MHC were obtained in the average 44.6 (4.8) in the Al-Islamy and 46.8 (10.2) Nurul Haromain which were included in the low level of quality of life. These value was significant difference (p=0.029). The quality of life in this results study of schizophrenia patients in Nurul Haromain was better than Al-Islamy.

According to the research Folsom, et al., (2009), patients with schizophrenia have a score of PHC and MHC are lower, compared to the Normal Comparison subjects (NCs). The current study data are not sufficient fully to evaluate the care and treatment of patients with schizophrenia in private rehabilitation centers. Some limitations could be made by the researcher such as we did not carry out the comparison of quality of life with normal subjects and with schizophrenia patients in rehabilitation centers of government, and we did not calculate the sample size. In order to use the study result as the evaluation of care and treatment, more research needs to be done comparison of quality of life in schizophrenia patients in rehabilitation centers of government, normal patients and considering the sample size of patients.

Tabel V. Quality of life in PHC aspect and MHC based on the rehabilitation centers with analysis using *Independent sample T-test*

Variabel	Al-Islamy (n=4)	Nurul Haromain (n=32)	*P* value
SF-36 Summary (Mean ± SD)			
PHC	52.2 (8.6)	55.5 (41.4)	0.662
MHC	44.6 (4.8)	46.8 (10.2)	0.029

CONCLUSION

We can conclude that:

1. The patients' quality of life of PHC aspect were significant different according to the visit time in Nurul Haromain (p=0.006).
2. There was a significant difference between the MHC (p=0.029) and non significant difference between the PHC (p=0.662) in private rehabilitation centers.
3. Based on the average of *Physical Health Component* (PHC) and *Mental Health Component* (MHC), we concluded that Nurul Haromain has better quality of life.

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