ORIGINAL ARTICLE

Coping Styles and Clinical Factors in Relation to Quality of Life among Patients with Schizophrenia

Mohd Badli M[1], Osman CB[2], Ainsah O[2]

[1] Unit of Psychiatry, Army Hospital, Kuala Lumpur
[2] Department of Psychiatry, Faculty of Medicine, University Kebangsaan Malaysia, Kuala Lumpur

ABSTRAK

Ini adalah kajian irisan lintang yang memeriksa kaitan kualiti hidup (KH) dengan faktor klinikal dan cara menangani stres pada pesakit Skizofrenia (N=92) dalam remisi daripada bulan Jun hingga Disember 2002. Tahap remisi ditentukan berdasarkan skala BPRS (Skala Ringkas Psikotik Psikiatri) dan diagnosa oleh Pakar Psikiatri yang merawat pesakit berdasarkan Temuduga Klinikal Berjadual Diagnosa untuk Manual diagnostik Statistik Edisi ke IV (DSM IV). Mereka berikutnya diminta melengkapkan soalan data demografik dan faktor klinikal serta seterusnya soalan pernilaian kualiti hidup(KH) dan cara tangani stress dengan masing-masing menggunakan 36 Item Soalan Ringkas Kajiselidik Kesihatan (SF36) untuk Kajian Hasil Perubatan dan Inventori Menangani Situasi Stres (CISS). KH pada terma kesihatan mental secara keseluruhannya pada pesakit Skizofrenia menunjukan ada perbedaan signifikan didalam kumpulan etnik ($p<0.05$), status pekerjaan ($p<0.05$), rawatan antipsikotik dan bilangan kemasukan pesakit ke wad ($p<0.05$). Kaum Cina dan mereka yang bekerja mempunyai perbezaan signifikan ($p<0.05$) pada KH untuk terma keseluruhan kesihatan mental. Cara menangani stress yang paling kerap digunakan oleh pesakit Skizofrenia adalah komponen menarik perhatian berorientasikan pengelakan. Menangani stres berorientasikan tugas mempunyai korelasi positif yang signifikan pada komponen mental KH. Sementara menangani berorientasikan emosi mempunyai korelasi negatif pada semua domin KH. Kesimpulannya, KH yang baik berkorelasi secara positif dengan cara menangani stres berorientasikan tugas dan berkorelasi secara terbalik pada cara menangani berorientasikan emosi.

Kata kunci: Kualiti hidup, cara tangani stres, skizofrenia

ABSTRACT

This is a cross sectional study examining quality of life in relation to coping styles among patients with Schizophrenia (N=92) in remission, from June 2002 to December 2002. Remission state is determined by Brief Psychiatric Rating Scale (BPRS). The psychiatric diagnosis was made by treating psychiatrist using the Clinical Interview Schedule for the DSM-IV Diagnosis. They are subsequently asked to complete demographic and clinical data questionnaire and followed by 36-item short-form health survey (SF-36) of the Medical Outcome Study (MOS) for the assessment of quality of life and the Coping Inventory for Stressful Situation (CISS). The QOL in term of overall mental health among

Address for correspondence and reprint requests: Associate Professor Dr Ainsah Omar, Department of Psychiatry, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia. Email: ainsah@mail.hukm.ukm.my / oyjaao@yahoo.com.my

patients with schizophrenia was significantly and positively associated with ethnic group ($p<0.05$), employment status, type of antipsychotic ($p<0.05$) and number of admission ($p<0.05$). Being Chinese and employed are associated with better QOL in term of overall mental health. The commonly used coping style among patients with Schizophrenia is the distraction component of avoidance-oriented coping. The task-oriented coping was significantly and positively correlated with quality of life in term of mental component. There was a negative correlation between the emotion-oriented coping and all the domain of the quality of life. In conclusion, better quality of life is positively correlated with task-oriented coping and inversely related with emotion-oriented coping.

Key Words: Quality of life, coping styles, schizophrenia

INTRODUCTION

Schizophrenia is characterized by profound disruptive psychopathology which involves thought, perception, emotion and behaviour (McKenna et al. 1997).

Patients manifest a broad array of cognitive impairments, including executive functions, memory, attention and language capabilities. Studies had shown that quality of life among patients with schizophrenia were mostly lower than that of the general population Lehman et al. (1982), Priebe et al. (2000) and Pinikahana et al. (2002). The importance of quality of life as an indicator of treatment outcome has been well recognized (Malla and Payne 2005). The objective of our study is to investigate the coping styles and the clinical factors in relation to quality of life among patients with Schizophrenia.

MATERIALS AND METHODS

Study design

This is a cross sectional study examining the quality of life of patients with Schizophrenia in relation to coping style, their demographic profile and clinical factors. The study was conducted at the out patient psychiatric clinic at Hospital Universiti Kebangsaan Malaysia (HUKM).

Patients with Schizophrenia who attended psychiatric out-patients clinic between period of June 2002 to December 2002 who fulfilled the inclusion criteria were included in this study. The patients were explained about the study and consents were taken from the patients. The clinical assessment was done by the authors. Subjects were considered to be at remission in Schizophrenia if score less than 9 in BPRS. The diagnosis of Schizophrenia was made by the treating psychiatrists using the Clinical Interview Schedule for DSM-IV Diagnosis.

Patients were subsequently subjected to the questionnaire on demographic and clinical factors. They were then asked to complete the questionnaire of Medical Outcome Study (MOS) of 36 items Short Form Health Survey (MOH) SF-36 and CISS to assess the quality of life and coping style respectively.

Samples

All patients attending the psychiatric out-patients clinic were registered. The simple randomized of the subsequence 10^{th} patient with the diagnosis of schizophrenia were selected for the study.

The inclusion criteria were patients of age 18 to 65 years with sufficient command of the Malay or English and no underlying physical illness while the exclusion criteria include those with history of serious brain injury, serious medical illness or substance abuse/ dependent, mental retardation and

BPRS score of more than 9.

Instruments used

1. Clinical Interview Schedule for DSM IV Diagnosis.
2. Brief Psychiatric Rating Scale (BPRS).
3. Medical Outcomes Study (MOS) 36-item Short Form (SF-36).
   - The MOS-36SF was developed for the Medical Outcomes Study and has been tested and validated extensively. It is a quality of life instrument. A bilingual questionnaire, containing the original English Language version and a translated developmental Bahasa Malaysia version was used by Sararaks et al. (2001).
4. Coping Inventory for Stressful Situation (CISS).
   - The Coping Inventory for Stressful Situations (CISS) was developed by Endler and Parker (1990). The Malay version of the CISS has been used in patients who could not understand English. In the local studies Azhar, (2002), Yusni, (2002), Suthahar, (2003), and Emanuel, (2006) had used the same questionnaire in her study on coping style, self-concept, and stress level among the psychiatric nursing staff and the casualty nursing staff.

Statistical analysis

The data was analyzed using the Statistical Package for Social Service, SPSS (SPSS Inc, Chicago Illinois, USA, version 13). The relationships between the study parameters were analyzed using the appropriate statistical tests.

Independent t-test and Chi-square are used to determine significant different between two groups. Non-parametric test was done for the data which was not normally distributed i.e. Mann-Whitney U-test, Kruskal-Wallis test and Spearman correlation. The parametric test was use for data that is normally distributed i.e. Independent t-test, Analysis of Variance (ANOVA) and Pearson correlation. Multiple Linear Regression was done for the multivariate analysis with the level of significant of $p<0.05$.

Ethical consideration

This research project was approved by the Research and Ethical Committee, Faculty of Medicine, Universiti Kebangsaan Malaysia.

RESULTS

A total of 92 patients with schizophrenia from a total of 106 patients who fulfilled the criteria were included in the study. Of those who were eligible for the study, 14 subjects (13.2%) declined to participate. The age range was 19-58 years old. There were 50 Malays, 30 Chinese and 10 Indians. All the details demographic and clinical data were listed in table 1.

The quality of life (QOL) of patients with schizophrenia in relation to their demographic and clinical factors were examined. The Exploratory Data Analysis and normality test was done to the quality of life (SF-36) score. For the patient with schizophrenia, the score on vitality and physical component summary was normally distributed, while the other domains of the quality of life score were not normally distributed.

i) Quality of life in relation to ethnic.

There was a significant different in the domains of role emotion, social functioning, mental health and mental component summary of the quality of life among the ethnic groups ($p<0.05$) (table 2). In term of role emotion and social functioning, Chinese and Malays were better than the Indian. In term of mental health and overall mental health the Chinese was better than others.

Table 1 : Summary of the demographic profile of patients with schizophrenia

DEMOGRAPHIC PROFILE	PSYCHIATRIC DIAGNOSIS	
	SCHIZOPHRENIA	
	N	%
RESIDENTIAL AREAS		
Kuala Lumpur	45	48.9
Selangor	40	43.5
Others	7	7.6
AGE GROUPS		
25 or less	23	24.1
26 to 35 years	36	39.0
36 to 45 years	25	28.0
46 to 55 years	7	7.6
More than 55 years	1	1.3
GENDER		
Male	57	62
Female	35	38
RACE		
Malay	50	54.3
Non-Malay	42	45.7
MARITAL STATUS		
Single and others	66	71.7
Married	26	28.3
OCCUPATIONS		
Employed	54	58.7
Non-employed	38	41.3
EDUCATION LEVEL		
Primary and secondary	64	69.6
Tertiary	28	30.4
FAMILY HISTORY		
Positive	42	45.7
Negative	50	54.3
		Mean ± SD
NUMBER OF ADMISSIONS	92	2.6±3.3
DURATION OF ILLNESS	92	9.17±6.3 years

*significant at p<0.05

Table 2 : The quality of life among the ethnic group in patient with schizophrenia.

QOL domains	Ethnic groups Mean ± SD			P
	Malay	Chinese	Indian	
Role emotion	66.7	66.7	33.3	0.02*
Role physical	75.0	75.0	50.0	Ns*
Bodily pain	77.0	84.0	72.0	Ns*
Vitality	63.8±22.8	64.84±17.6	50.55±27.1	Ns#
General health profile	72.0	72.0	52.0	Ns*
Social func-tioning	75.0	75.0	50.0	0.02*
Physical func-tioning	85.0	85.0	80.0	Ns*
Mental health	68.0	72.0	52.0	0.03*
Physical component summary	49.02±6.9	50.35±7.1	47.50±9.9	Ns#
Mental com-ponent summary	46.2	49.2	30.2	0.02*

*significant at p<0.05
Ns not significant
median (interquartile range)*[Kruskal-Wallis]
mean ± standard deviation # ANOVA

ii) Coping styles

The most commonly used coping style among patients with schizophrenia was distraction component of avoidance-oriented coping and the least common was emotion-oriented coping (table 3).

Table 3: Coping styles among patients with schizophrenia.

Coping styles	Mean ± SD
Task(TE)	51.1±9.2
Emotion (TE)	43.1±9.9
Avoidance (TA)	50.8±9.5
Distraction (TD)	53.1±8.8
Social Diversion (TSD)	47.4±9.0

iii) The relationship between quality of life and coping styles

The relationship between the quality of life and coping style among patients with schizophrenia was assessed by using the Pearson correlation for normally distributed data and Spearman correlation for data that was not normally distributed.

There was a positive correlation between the task-oriented coping in relation to the quality of life in term of vitality (r_s=0.32, p=0.002), general health profile (r_s=0.31, p=0.002), social functioning (r_s=0.21, p=0.04), mental health (r_s=0.31, p=0.003) and mental composite score (r_s=0.27, p=0.009) (table 4).

This positive correlation coefficient indicates that there is a statistically significant (p<0.05) linear relationship between these variables, the more task-oriented coping the patient used, the better the quality of life in term of vitality, general health profile, social functioning, mental health and also the overall mental health.

There was a negative correlation between the emotion-oriented coping and all the domain of quality of life. This negative correlation coefficient indicates that there is a statistically significant (p<0.05) linear relationship between these variables, the more emotion-oriented coping the patient used, the poor is the quality of life (table 4).

There was also a positive correlation between the avoidance-oriented coping and vitality (r_s=0.22, p=0.04). This positive correlation indicates that there is a statistically significant (p<0.05) linear relationship between these variables, the more avoidance-oriented coping the patient used, the better the quality of life in term of vitality. But there was no correlation between the distraction component of avoidance-oriented coping and various domain of the quality of life. This is not

statistically significant (p> 0.05) and did not show linear relationship between these two variables.

There was significant positive correlation between social diversion component of avoidance oriented-coping with quality of life in term of vitality (r=0.42, p=0.0005), general health profile (r=0.26, p=0.01), mental health (r=0.28, p=0.006) and mental composite score (r=0.30, p=0.004). The more social diversion component of avoidance oriented–coping the patient used the better in the quality of life in term of vitality, general health profile, mental health and mental composite score (table 4).

Multivariate analysis of multiple linear regression showed there were statistically significant between the domains of the quality of life and the clinical factors i.e. ethnic groups, occupational status, atypical antipsychotics and number of admissions (p<0.05) (table 5).

DISCUSSION

The quality of life among patients with schizophrenia is significantly associated with ethnic, occupational status, atypical antipsychotics and number of admissions. The Chinese has better quality of life in term of overall mental health as compared to other races. This could be explained by the facts that they were mostly on atypical antipsychotics. Studies had showed that atypical antipsychotics were associated with good QOL Karow et al (2002). The Chinese were also had a better economical status and could therefore afford to purchase these costly medications. While those who were employed compared to the unemployed were normally had a better financial standing and could secure the basic physical as well as the psychosocial needs namely food, accommodation and had a higher self-esteem, these would in turn lead to a better QOL.

Table 4 : Correlation between the coping styles and various domains of the quality of life in patients with schizophrenia.

	RE	RP	Pain	Vitality	GHP	SF	PF	MH	PCS	MCS
TT	0.04	0.04	-0.01	0.32	0.31	0.21	0.18	0.31	0.08	0.27
	0.70	0.73	0.93	0.002*	0.002*	0.04*	0.07	0.003*	0.44	0.009*
TE	-0.41	-0.29	-0.39	-0.47	-0.52	-0.38	-0.24	-0.46	-0.35	-0.48
	0.000*	0.005*	0.000*	0.000*	0.000*	0.000*	0.02*	0.000*	0.001*	0.000*
TA	0.02	-0.02	-0.07	0.22	0.18	0.10	0.04	0.12	0.01	0.14
	0.83	0.86	0.49	0.04*	0.07	0.33	0.72	0.24	0.94	0.18
TD	-0.14	-0.06	-0.09	0.08	0.11	-0.02	-0.03	-0.02	0.02	-0.06
	0.19	0.55	0.42	0.45	0.31	0.83	0.78	0.84	0.82	0.55
TSD	0.12	0.08	0.05	0.42	0.26	0.19	0.09	0.28	0.09	0.30
	0.25	0.48	0.64	0.000*	0.01*	0.06	0.40	0.006*	0.35	0.004*

RE Role emotion, RP Role Physical, Pain Bodily Pain, Vitality, GHP General Health Profile, SF Social Functioning, PF Physical Functioning, MH Mental Health, PCS Physical Component System, MCS Mental Component System

* Significant p<0.05

Pearson correlation

* significant at p<0.05.

r_s correlation coefficient

p significant level

Table 5 : Multiple linear regression analysis for the eight (8) dimensions of the quality of life inventories in relation to demographic and clinical data.

Independent variable		Dependent variables									
		RE	RP	Pain	Vitality	GHP	SF	PF	MH	PCS	MCS
Constant	B	49.02	41.39	82.16	88.18	71.04	46.88	47.89	53.96	52.71	78.90
	p										
Gender	B	0.67	-5.86	-0.18	2.44	2.98	-4.09	-3.09	0.92	-0.17	0.98
	p	0.74	0.32	0.96	0.61	0.97	0.82	0.67	0.11	0.91	0.65
Age	B	-0.99	1.99	3.84	0.94	-0.89	-5.03	-0.29	3.47	0.90	4.13
	p	0.34	0.52	0.22	0.76	0.64	0.85	0.86	0.23	0.38	0.17
Race	B	1.03	6.49	-2.15	-2.38	-0.59	1.03	2.89	0.33	-0.49	1.22
	p	0.02*	0.08	0.56	0.52	0.34	0..02*	0.96	0.03*	0.68	0.02*
Education	B	2.45	7.49	-0.53	-0.14	3.14	4.81	-0.45	2.89	-0.67	3.82
Level	p	0.12	0.09	0.86	0.96	0.08	0.19	0.12	0.09	0.51	0.11
Antipsychotic	B	2.69	-2.31	10.04	-1.34	3.74	-4.34	-3.33	1.72	3.55	3.45
	p	0.33	0.08	0.04*	0.78	0.28	0.71	0.38	0.73	0.03*	0.12
Family	B	-2.54	-2.85	-5.01	-2.84	2.56	4.86	-0.99	2.59	0.67	1.97
History	p	0.27	0.57	0.29	0.55	0.72	0.11	0.19	0.14	0.22	0.82
Number of	B	-1.16	-0.51	-1.39	-0.51	-0.96	4.07	2.66	3.87	-0.255	0.99
Admission	p	0.04*	0.54	0.07	0.52	0.31	0.17	0.49	0.66	0.03*	0.27
Duration of	B	5.23	-3.79	2.54	-3.79	1.89	5.87	2.32	5.26	-1.51	1.65
Illness	p	0.09	0.60	0.72	0.60	0.99	0.19	0.71	0.14	0.53	0.09
Occupation	B	-1.62	-2.79	-7.21	-7.79	4.56	2.44	-0.29	3.94	-2.44	3.75
	p	0.61	0.99	0.03*	0.02*	0.89	0.18	0.09	0.32	0.03*	0.10
Marital	B	6.06	0.05	-4.56	0.05	4.34	2..21	-0.32	3.22	-1.07	4.56
Status	p	0.28	0.91	0.27	0.99	0.83	0.15	0.10	0.12	0.44	0.19

RE Role emotion, RP Role Physical, Pain Bodily Pain, Vitality, GHP General Health Profile, SF Social Functioning, PF Physical Functioning, MH Mental Health, PCS Physical Component System, MCS Mental Component System

* Significant p<0.05

There was a negative correlation between number of admission in relation to the QOL in term of role physical and physical component summary (p<0.05). Those patients who were frequently admitted reported more role limitation because of physical problem. But the number of admission could be an indicator for the severity of illness, those who had more admission could indicate poor compliance, poor social support etc.

The quality of life among people with schizophrenia is not significantly associated with age groups, marital status, education level, duration of illness, gender, family history of psychiatric illness and antipsychotic medicines.

However in the multivariate analysis of the quality of life in patients with schizophrenia the QOL are statistically associated with ethnic, occupational status, antipsychotic medication (p<0.05) and number of admissions. Those employed and receiving atypical antipsychotic have better quality of life.

There was a positive correlation between the task-oriented coping and social diversion component of avoidance-oriented coping in relation to quality of life. On the other hand, there was a negative correlation between the emotion-oriented coping and quality of life.

There are several limitations that had been acknowledged in this study. The

result of this study should be interpreted with caution.

In this study important factors that could influence the result were not considered. Confounders such as adverse life event, support system and adherence to treatment should be controlled Macdonald et al. (1998), Russo et al. (2000) and Ruggeri et al. (2001). This is a hospital-based study and is not a community-based. The samples in our study were patients who were regular with follow-up, had good adherence to medications with a close monitoring by treating specialists and were also in remission state. Therefore the result may not be able to generalize to patients with Schizophrenia as a whole.

ACKNOWLEDGEMENTS

Authors would like to thank all staff and patients who had participated in this study.

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