Health-Related Quality of Life in Thai Bipolar Disorder

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Background: *Bipolar disorder (BPD) affects both patients' functioning and well-being. Quality of life (QoL) has gained increasing attention as an important functional outcome in BPD. The present study was conducted to assess QoL of Thai BPD patients.*
Material and Method: *The authors obtained cross-sectional demographic, clinical, and functional ratings from 285 BPD outpatients. SF-36 and Thai Mania Rating Scale (TMRS) were used to assess QoL and severity of symptoms respectively.*
Results: *The mean TMRS was 4.42 $\pm$ 5.87. Compared with the Thai general population, SF-36 scores of study population were significantly lower, except for bodily pain and social functioning domains. Sodium valproate treated group's SF-36 scores was better than lithium carbonate treated group's ($p = 0.02$).*
Conclusion: *The present study is one of the pioneers in assessing the impact of co-morbidity on health-related QoL in Thai BPD patients. Even in the stable phase, patients were less functioning than the normal Thai population.*

Keywords: *Bipolar disorder, Health-related quality of life, SF-36, Lithium, Sodium valproate*

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Bipolar disorder is a psychiatric disorder that affects patient functioning and well-being. The natural history of bipolar disorder is characterized by frequent relapse and recurrence[1], with impaired patient functioning and well-being even after symptomatic recovery[2-7]. Bipolar I disorder is one of the most complex psychiatric conditions characterized by recurrent mood episodes and varied course. It affects at least 1% of the population and is associated with morbidity and mortality[8]. World Health Organization estimation suggested that bipolar disorder was the fifth leading cause of disability worldwide amongst young adults in the year 2000[9].

Although bipolar disorder is associated with a substantial level of disability, efforts to investigate the correlates of impairment have been meager. Quality of life (QoL) has gained increasing attention as an important component of functional outcome in bipolar disorder. The assessment of QoL provides levels of information not always supplied by traditional outcome measures. For example, some instruments such as the Schedule for the Evaluation of Individualized Quality of Life (SEIQoL)[10] and the Patient Generated Index[11] allow patients to prioritize which life domains are most important to them. While the reduction of symptoms is the primary goal of clinicians, it may be that the patients place more emphasis upon restoring family relationships, or being able to engage in leisure activities. These particular measurements, although sometimes difficult to administer and interpret, put the patient at the center rather than at the periphery of assessing the effectiveness of treatment interventions. QoL assessment can also help determine patient preference, allow comparison of well-being between different conditions, and detect subtle differences in response to treatment that may be missed by traditional outcome measures.

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SF-36 is currently the most widely used measure of Health Related Quality of Life (HRQOL)[12]. It is a self-administered, 36-item questionnaire that measures health-related functions in eight domains: physical functioning (PF); role limitations due to physical problems (RP); bodily pain (BP); vitality (VT); general health perceptions (GH); social functioning (SF); role limitations due to emotional problems (RE), and mental health (MH). A Thai version of the SF-36 has been successfully constructed with apparent equivalence to the original SF-36 and with an acceptable level of reliability[13]. Therefore, the authors used this measurement to assess the functioning outcome in stable Thai BP patients.

The goal of the present study was to determine the quality of life of Thai patients with bipolar disorder in an out-patient setting.

Material and Method

Study design and population

A cross-sectional study was carried out at the four psychiatric clinics between 1 January 2005 and 31 March 2005. Eligible patients with BP in maintenance phase, age 15-75 years, both men and women, were enrolled consecutively into the present study. Exclusion criteria were the concomitant presence of other medical and mental disorders. Patients were assessed with the Thai version of Clinician-Administered Rating Scale for Mania[14]. To evaluate quality of life, all patients received the Thai version of the SF-36 Health Survey. At the same time, sociodemographic and clinical data were obtained. Every patient was asked to complete the SF-36 questionnaire.

Statistical analysis

Data were entered into Excel spreadsheet (Microsoft Corporation) and analyzed using SPSS. Categorical data are described as number and percentage-n (%). Continuous data are presented as mean $\pm$ standard deviation (SD) and median (range). Statistical analysis of continuous data was performed with One-way Anova or non-parametric methods as appropriate. χ^2 test was used for analysis of discrete data. P-value less than 0.05 were considered as statistical significance.

Results

Two hundred and eighty five outpatients with the diagnosis of bipolar disorder were enrolled in the present study. The mean score of mania rating scale was 4.42 (SD 5.87), characteristics of the study population was shown in Table 1.

All 285 patients completed the SF-36 (Table 2). Means transformed scores, which could range from 0 to 100, were low in role-physical (61.2), general health (57.0), vitality (55.6), social functioning (68.7), role emotion (55.2), and mental health (64.6) subscales. Mean scores of SF-36 physical component summary was 67.31 and mental component summary was 61.87.

Further, the mean SF-36 scores for the bipolar sample were consistently lower compared with published data on QoL in normative Thai people in the Bangkok metropolitan area on six subscales except bodily pain and social functioning domains (Table 3, Fig. 1).

Age group 15-24 years old had the lowest score in six subscales; role physical, general health, vitality, social functioning, role emotion, and mental health.

There were two majorities of mood stabilizers used in the present study population; sodium valproate and lithium carbonate (Fig. 2). The difference of functioning outcome of the sodium valproate treated group (108 cases) (mean total SF-36 = 676.85 $\pm$ 183.8) and the lithium carbonate treated group (97 cases) (mean total SF-36 = 609.79 $\pm$ 211.9) was statistically significant ($p = 0.02$). The disease severity measured by total YMRS in the sodium valproate treated group (108 cases) was 4.14 + 6.05 compared with 5.09 + 6.09 in the lithium carbonate treated group (97 cases), and was not statistically significantly different (Table 4, 5).

Discussion

This is a pilot study to date reports on QoL in Thai patients with bipolar disorder using Thai SF-36 HRQOL. The results indicate that bipolar disorder patients have significant impairment in QoL compared with normative scores in a Thai population (Bangkok Metropolitan). The lowest score in six subscales

Table 1. Demographics characteristics (n = 285)

Characteristics	Number	%
Sex		
Male : Female	111:174	38.9:61.1
Age		
15-24 years	38	13.6
25-34 years	56	20.1
35-44 years	62	22.2
45-54 years	67	24.0
55-64 years	33	11.8
> 64 years	23	8.2

Table 2. SF-36 score and TYMRS of the study group

	Age group						Mean
	15-24	25-34	35-44	45-54	55-64	> 64	
Total YMRS	5.92 ± 6.29	3.19 ± 3.85	4.81 ± 6.89	4.65 ± 6.12	3.76 ± 5.42	4.22 ± 6.09	4.42 ± 5.87
SF-36 domain							
Physical functioning	83.6 ± 17.1	81.1 ± 19.1	73.9 ± 26.6	66.2 ± 26.9	75.81 ± 20.35	55.65 ± 32.83	75.2 ± 23.9
Role physical	47.4 ± 43.0	63.4 ± 37.8	62.9 ± 41.0	58.6 ± 40.5	75.8 ± 33.9	42.39 ± 44.23	61.2 ± 40.1
Bodily pain	76.0 ± 28.8	78.1 ± 21.6	75.0 ± 25.1	79.6 ± 20.4	79.2 ± 25.1	75.00 ± 19.29	77.6 ± 23.8
General health	51.2 ± 25.6	59.6 ± 22.5	55.4 ± 21.5	56.5 ± 22.2	64.0 ± 21.8	50.68 ± 28.80	57.0 ± 22.7
Vitality	49.7 ± 20.2	54.5 ± 16.1	55.1 ± 22.3	56.8 ± 16.8	63.1 ± 20.5	61.74 ± 22.54	55.6 ± 19.3
Social functioning	63.2 ± 26.5	69.5 ± 25.1	64.5 ± 26.9	71.5 ± 23.0	75.8 ± 24.8	69.57 ± 29.15	68.7 ± 25.3
Role emotional	41.4 ± 41.9	56.2 ± 39.8	59.7 ± 43.6	51.2 ± 44.3	68.7 ± 39.9	39.13 ± 43.41	55.2 ± 42.7
Mental health	58.1 ± 19.6	64.5 ± 17.6	62.9 ± 22.4	65.1 ± 18.8	74.6 ± 20.0	70.55 ± 22.51	64.6 ± 20.1

Table 3. SF-36 score of bipolar disorder study group compared with Thai general population

SF-36 domain	Study population	Thai general population (Bangkok Metropolitan)
Physical functioning	75.2 ± 23.9	80.7 ± 15.4
Role physical	61.2 ± 40.1	82.2 ± 27.1
Bodily pain	77.6 ± 23.8	70.8 ± 18.8
General health	57.0 ± 22.7	63.5 ± 16.8
Vitality	55.6 ± 19.3	63.5 ± 13.9
Social functioning	68.7 ± 25.3	67.5 ± 19.8
Role emotional	55.2 ± 42.7	76.5 ± 32.7
Mental health	64.6 ± 20.1	70.8 ± 14.5

Table 4. The treatment group

Characteristics	Valproate (108)	Lithium (97)	Total (285)	p-value
Male / Female %	40/60	39/61	111/174	NA
Age				
Mean [min-max] year	42.48 (17-75)	43.02 (17-71)	42.31 (17-75)	0.79
TMRS (SD)	4.14 (6)	5.09 (6)	4.38 (5.82)	0.26
Total SF-36 score	676.85 (183.8)	609.79 (211.9)	634.50 (205.8)	0.02

Table 5. SF-36 Score of patients treated with Sodium valproate comparing with patients treated with Lithium carbonate

SF-36	Sodium valproate (n = 108)	Lithium carbonate (n = 97)	p-value
Physical functioning	75.09 ± 25.99	73.89 ± 22.74	0.72
Role physical	62.50 ± 40.18	58.84 ± 42.00	0.52
Bodily pain	81.31 ± 21.63	74.75 ± 24.93	0.45
General health	60.09 ± 22.51	53.18 ± 23.15	0.32
Vitality	58.32 ± 18.91	54.90 ± 20.32	0.21
Social functioning	71.48 ± 23.95	67.50 ± 25.87	0.25
Role emotional	57.49 ± 42.76	54.00 ± 42.84	0.56
Mental health	67.89 ± 19.04	62.40 ± 21.69	0.55
Total	676.85 ± 183.8	609.79 ± 211.9	0.02

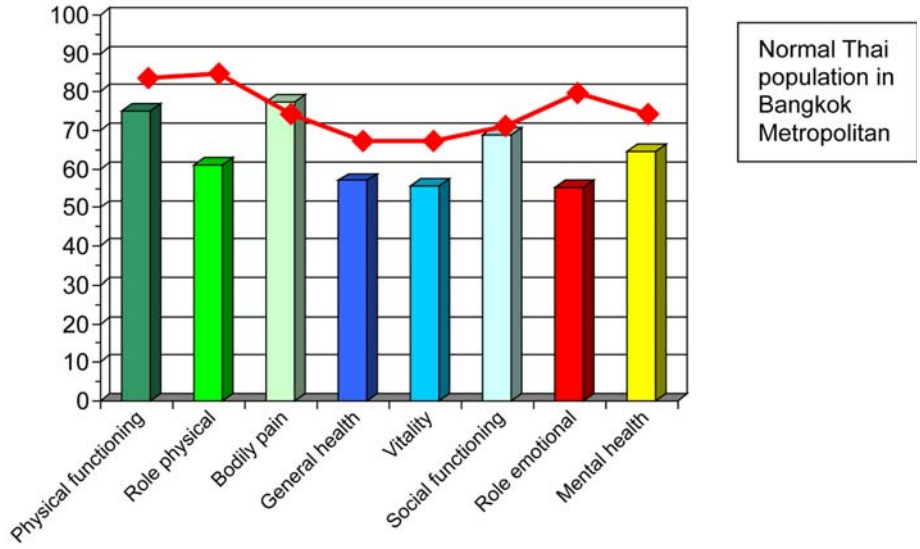

Fig. 1 Mean scores of SF-36 in 8 subscales

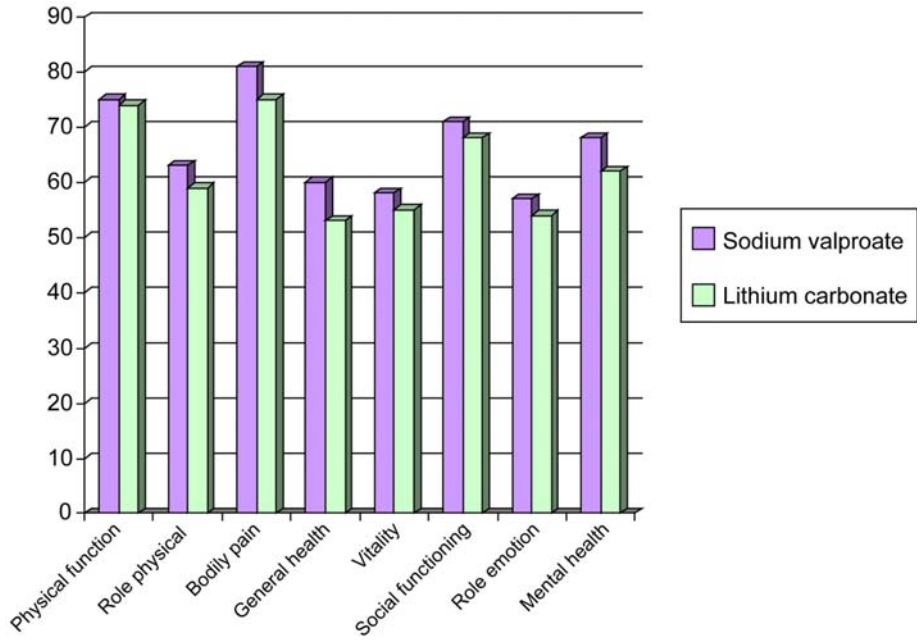

Fig. 2 Mean scores of SF-36 by function in sodium valproate treated group vs. lithium carbonate treated group

belongs to the 15-24 years old subgroup. The data from this pilot study illustrates the distress, disability and burden in bipolar disorder imposes on an individual's life, which complies with previous reports [15-17]. Arnold et al compared SF-36 scores between patients with BD and chronic back pain with norms previously reported for a general population sample[15]. The results of the present study indicated that SF-36 score compromised in all domains except bodily pain and physical functioning in BD patients compared with the general population sample. Yatham et al reported the largest cohort study to date of QoL in BD type I who

were currently depressed, or had experienced a recent episode of depression[16]. SF-36 scores were remarkably low in the role-physical, vitality, social functioning, role-emotional and mental health subscales. The Netherlands Mental Health Survey and Incidence Study (NEMESIS) have examined the epidemiology of psychiatric disorders in a large general population sample[17]. Participants with BD showed significantly more impairment in most of questionnaire's domains compared with subjects diagnosed with other psychiatric disorders.

The difference in total SF-36 scores with similar YMRS between patients treated with sodium valproate and patients treated with lithium carbonate reflected the better quality of life with the same severity of disease among these patients. Dennis A. Revicki et al reported a trend of better mental health index-17 in divalproex-treated group compared with the lithium treated group[18]. Charles L Bowden et al reported the result of a randomized, placebo-controlled 12-month trial of divalproex and lithium in the treatment of outpatients with bipolar I disorder that divalproex was significantly more effective than either placebo or lithium on several outcome measures, including rates of recurrence of the affective episodes severe enough to warrant patients' discontinuation from the study. Divalproex was somewhat more effective than lithium in controlling subsyndromal depressive symptoms[19]. The study of Tohen et al demonstrated that 98% of first episode mania patients achieved syndromal recovery after 24 months, but only 38% achieved functional recovery[20]. Literature review noted that by future research in the BD area should employ much broader measures of outcome, such as assessment of QoL, which may be less amenable to pharmacological treatment in isolation[21].

Conclusion

The present study is one of the pioneers in assessing the impact of co-morbidity on health-related quality of life in Thai bipolar disorder patients. Even in the stable phase, patients were less functioning and their well-being was worse than the normal Thai population in terms of quality of life. Patients treated with Sodium Valprote had better functioning outcome compared to Lithium Carbonate. Due to the great impact of bipolar disorder on many areas, it would be of interest to know the clinical predictors that related to the patient's quality of life, as this would contribute to the design of different clinical interventions. Because of the valuable information on patients' well-being, which cannot be obtained by traditional clinical outcome evaluation, QoL measures should be added in pharmacological research in bipolar populations.

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คุณภาพชีวิตในผู้ป่วยไทยโรคอารมณ์แปรปรวน: กรณีศึกษา 285 ราย

รณชัย คงสกนธ์, ปราการ ถมยางกูร, บุรณี กาญจนถวัลย์, สุทธิพร เจณณวาสิน

***ภูมิหลัง**: โรคอารมณ์แปรปรวนเป็นโรคเรื้อรังที่มีผลกระทบต่อคุณภาพชีวิต ของผู้ป่วย การศึกษานี้ จึงมีจุดประสงค์เพื่อประเมินคุณภาพชีวิตของผู้ป่วย โรคอารมณ์แปรปรวนชาวไทยที่ได้รับการรักษา โดยใช้แบบประเมินคุณภาพชีวิต SF-36*

***วัสดุและวิธีการ**: การศึกษานี้เป็นการศึกษาภาคตัดขวาง โดยประเมินความรุนแรงของอาการผู้ป่วย และคุณภาพชีวิตของผู้ป่วยโรคอารมณ์แปรปรวนที่รับการรักษาในแผนกผู้ป่วยนอก จาก 4 ศูนย์การศึกษา โดยใช้แบบสอบถาม SF-36 ในการประเมินคุณภาพชีวิต และ Thai Mania Rating Scale (TMRS) ในการประเมินความรุนแรงของอาการ*

***ผลการศึกษา**: ข้อมูลได้จากผู้ป่วยอารมณ์แปรปรวน 285 ราย คะแนนเฉลี่ย TMRS 4.42 $\pm$ 5.87 คะแนน SF-36 ในประชากรที่ศึกษาพบว่า ต่ำกว่าคะแนนของประชากรไทยทั่วไปในทุกด้านยกเว้น ด้านการเจ็บป่วยทางกาย และ การทำกิจกรรมทางสังคม กลุ่มผู้ป่วยที่ได้รับยาโซเดียม วาลโพรเอต พบมีคะแนนคุณภาพชีวิตดีกว่าผู้ป่วยกลุ่มที่ได้รับยาลิเทียม*

***สรุป**: การศึกษานี้เป็นเพียงหนึ่งในการศึกษานำร่องเพื่อประเมินผลของโรค ต่อคุณภาพชีวิต ในผู้ป่วยไทย โรคอารมณ์แปรปรวนแม้ผู้ป่วยจะอยู่ในภาวะที่ควบคุมอาการของโรคได้ ความเป็นอยู่ทั่วไป และ ความสามารถในการทำงานก็ยังด้อยกว่าบุคคลทั่วไป*