Quality of Life in Drug Dependent Patients: A Study in Songkhla Province, Thailand

Patchanok Rattanakornpreeda MPH*, Suchada Paileeklee PhD*

* Department of Community Medicine, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

Objective: *To study the quality of life among drug dependent patients in Government Health Service Unit in Songkhla.*

Material and Method: *The present study was a cross-sectional study. The sample was 749 drug dependent patients and were from both the outpatient department (OPD) and the inpatient department (IPD) of Hatyai Hospital, Songkhla Hospital, Thanyarak Songkhla Hospital, and Songkhla Rajanagarindra Psychiatric Hospital. The instrument of the present study was the Short-Form Health Survey-36 (SF-36) of The Medical Outcomes Study (MOS), Thai version. Data analysis used descriptive statistics to describe the general characteristics and the quality of life of patients with drugs.*

Results: *The results of health assessment of the patients were the same as the last year (50.2%), consistent with type of drug use. Types of drugs used for treatment, patterns, and methods of treatment were similar in the four hospitals. The sample had the highest means of the quality of life in Physical Functioning (PF) 94.6±10.9. The lowest means was the Social Functioning (SF) 53.8±11.1. Comparing with the general public, we found drugs patients' quality of life was lower in all aspects, except PF.*

Conclusion: *Most patients had similar health condition as last year. The highest quality of life of patients was in PF and the lowest was in SF. The patients who used sedative drug had lower quality of life than the patients who used stimulating and combination drug.*

Keywords: *Quality of life, SF-36, Drug dependent patients*

J Med Assoc Thai 2017; 100 (12): 1325-30
Website: http://www.jmatonline.com

The United Nations (UN) found the populations aged 15 to 64 years old were increasingly likely to use drugs every year. It is estimated that in 2013, there were 246 million drug abusers. The prevalence rate was 0.59% to 5.2%[1]. Drug abuse is one factor that affects the quality of life of all ages. In health problem, needle sharing increases the occurrence of diseases such as AIDS, Hepatitis B, or C. Drug addiction also affects society as it causes a variety of problems in families and communities. The addicts' mental disorders cause problems of coexistence, violence, economic insecurity of families, and risk of sexually transmitted diseases[2]. In Thailand, the 2011 estimated number of people, aged 12 to 65 years, involved with substance abuse was approximately 3.5 million. The southern regions where found as a major area of drug abuse problem[3]. After launching the Narcotic Addict Rehabilitation Act, B.E. 2002 and the rehabilitation enforcement in B.E. 2003, 310,282 drug patients were registered in rehabilitation[4].

Correspondence to:
Paileeklee S. Department of Community Medicine, Faculty of Medicine, Khon Kaen University, Khon Kaen 40002, Thailand.
Phone: +66-89-7106487
E-mail: paileeklee@yahoo.com

There is much effort to improve the effective of treatment of drug dependent patients, but in Thailand there is limited information about the improvement of quality of life of the patients. The present study aimed to assess the quality of life among drug dependent patients who obtained treatment in four Government Health Service Units in Songkhla.

Material and Method

The present research was a cross-sectional study. The population were drug users, drug addicts and intense drug addicts, according to the triage. They all were obtained rehabilitation in four government health services units in Songkhla, which were the Hat Yai Hospital, the Songkhla Hospital, the Thanyarak Sogkhla Hospital, and the Songkhla Rajanagarindra Psychiatric Hospital. All patients were diagnosed of having mental and behavioral disorders caused by Psychotropic substances used, according to (ICD-10) code F10 to F19, and obtained treatment as outpatient or inpatient services between July and September 2013. Sample size was calculated from the findings among Thai general public[5]. SD of each domain varied from 13.0 to 40.5, with acceptable error of 4.0, for each domain. The maximum sample size was 439.

Based on 1,637 patents attended the four hospitals in the previous year. Thus, all patients that met the criteria were approach for data collection. Data were collected by self-administered questionnaire and interview by researchers as well as trained research assistants. The Short-Form Health Survey-36 (SF-36) of The Medical Outcomes Study (MOS) Thai version was applied to assess the quality of life. The SF-36 questionnaire is divided into eight domains, 1) Mental Health (MH), 2) General Health (GH), 3) Bodily Pain (BP), 4) Physical Functioning (PF), 5) Physical Role (RP), 6) Emotional Role (RE), 7) Vitality (VT), and 8) Social Functioning (SF). Each domain has a score from 0 to 100[6]. Statistical analysis was performed to describe general characteristics and the quality of life in term of percentage and mean scores, using SPSS version 17.0. Then, One-Way ANOVA was performed for comparing the different quality of life between hospitals.

The study's protocol was approved by the Khon Kaen University Ethics Committee in Human Research and the Songkhla Rajanagarindra Psychiatric Hospital Ethics Committee for Human Research based on the principle of Declaration of Helsinki, and ICH GCP standards (HE551439 and 29/2556).

Results

The characteristics of patients

Seven hundred forty nine patients data were analyzed during this study. The majority was male (94.1%). The average age was 24.24±7.2 years. Most of them were single (70.9%), finished high school (37.5%), worked as employee (29.6%), had an individual income of 7,501 to 10,000 baht per month (39.1%), and a family income 50,001 to 100,000 per month (25.2%). Considering drug used, most of patients were single-drug users (59.4%). The major drugs used were Amphetamines, Methamphetamine, and Cannabis. Most patients were under voluntary system (72.1%) and obtained outpatient services (69.4%). Most of them were under the universal coverage scheme (90.7%).

The assessment of general health of drug dependent patients

Half of the patients assessed that their GH were relatively as same as last year (50.2%), followed by better than last year (19.1%). The proportion of those reported that their health was similar to last year had the same pattern among four hospitals. Considering by number of drug used, it was found slightly different between single, combined, and alternation use (47.4%, 47.1%, and 55.2%, respectively). In accordance with the classification by type of drug used, it was found that sedative drugs (opium, morphine, heroine, Zolam, and volatile), stimulant drugs (amphetamine, methamphetamine, cocaine, Kratom (*Mitragyna speciosa*), ecstasy, and 4x100), and combination action drug (Marijuana) reported that the level of health was relatively similar to last year and was 40.0%, 50.1%, and 52.8%, respectively. Regarding by the treatment system, voluntary treatment system and forced treatment also had GH condition the same as last year, at 53.5% and 42.1%, respectively. In consideration of pattern and methods of treatment, it was found that outpatient department (OPD) and inpatient department (IPD) had the same proportion of reporting similar health condition to last year (53.6% and 42.2%). However, all patients assessed that Methadone made their GH getting better.

The assessment of the quality of life by domain

The study found the highest means score of quality of life in PF (94.6±10.9), followed by RE (69.7±36.4). The lowest means score was in SF

Table 1. The quality of life of drug patients by health services unit

Domain	Hatyai Hospital (n = 149)		Songkhla Hospital (n = 25)		Thanyarak Songkhla Hospital (n = 433)		Songkhla Rajanagarindra Psychiatric Hospital (n = 142)		Total (n = 749)		*p*-value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Physical functioning	90.0	13.9	92.6	14.2	95.5	10.0	97.1	7.2	94.6	10.9	<0.001
Physical role	77.1	34.0	78.0	34.0	66.8	33.7	61.4	36.7	68.2	34.7	<0.001
Bodily pain	54.9	10.5	51.2	8.8	56.8	8.0	55.2	9.6	55.9	9.8	0.003
General health	59.7	17.4	58.8	16.4	52.5	12.2	53.8	14.6	54.4	14.3	<0.001
Social functioning	56.9	14.8	58.0	5.7	51.8	9.7	56.1	9.6	53.8	11.1	<0.001
Vitality	63.8	15.7	62.8	12.8	62.6	15.1	58.4	13.6	62.0	15.0	0.011
Emotional role	74.9	35.0	86.6	28.8	69.4	35.6	61.9	39.6	69.7	36.4	0.002
Mental health	65.4	18.0	67.3	12.5	56.1	14.1	54.6	15.0	58.1	15.7	<0.001

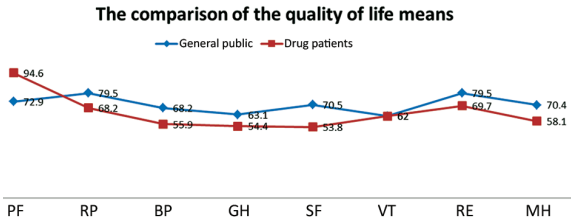

Fig. 1 The quality of life mean scores by dimensions of drug patients and general public.

(53.8±11.1). Comparing the difference of means (Multiple Comparison) of patients' quality of life in each dimension, it was found significantly different in every dimension at 0.05 (as shown in Table 1).

In consideration of pattern of drug used, the study revealed that patients with alternation use had relatively low score of the quality of life than single and combined drugs, except PF. Regarding type of drug use, sedative drug users had the lowest score in almost all domains as compared to those who used stimulants and combined action drug, except SF. The patients under volunteer treatment system had lower scores, except PF. The patients who obtained IPD service had lower quality of life than OPD patients in almost all domains except SF and lower than those that obtained methadone except BP, and MH (as shown in Table 2).

Drug patients' quality of life comparing to general public

Comparing with the general public[7], drug dependent patients had lower mean scores of quality of life in six domains. PF mean score was higher than the general public, and VT shared the same score (Fig. 1).

Discussion

The present study discussed on following issues: 1) Sample characteristics; gender ratio of male to female was 0.94:0.06 was similar to the ratio of total patient obtaining drug abuse rehabilitation in Songkhla in 2013. Moreover, average age, occupation, type of drug use, type of treatment, treatment system were also consistent this information; that was most of the sample was teenagers, working age (38.6%), employee (40.8%), Amphetamine use (41/8%), and voluntary treatment system (50.9%)[8]. 2) About half of patients assessed their GH were the same as last year (50.2%), which found consistent pattern among four hospitals, and type of drug use. Since most of drug patients were young and able to live normally. The effects

Table 2. The quality of life of drug pateints by drug related factors

Domain	Pattern of substance use						Type of substance used						Treatment system				Medical treatment					
	Single (n = 445)		Alternation (n = 270)		Combined (n = 34)		Sedative (n = 35)		Stimulant (n = 712)		Combining action (n = 210)		Volunteer system (n = 535)		Law enforcement system (n = 214)		OPD (n = 529)		IPD (n = 218)		Methadone (n = 2)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Physical functioning	93.9	11.2	96.5	9.3	88.6	14.6	89.8	15.2	94.5	10.9	95.1	10.1	95.4	10.8	92.6	11.3	95.4	10.3	92.6	11.9	95.0	7.0
Physical role	72.0	34.1	63.3	34.6	55.8	36.4	55.2	33.0	68.0	34.7	65.2	37.0	63.7	35.3	79.4	30.5	69.4	34.3	65.2	35.8	75.0	35.3
Bodily pain	56.2	8.9	55.7	8.9	52.3	10.1	54.1	10.5	55.8	9.1	56.0	8.8	55.9	8.5	56.0	10.1	56.1	8.4	55.5	10.2	50.0	14.1
General health	55.3	14.6	52.8	13.8	55.2	11.9	51.1	16.4	54.5	14.2	54.7	14.2	52.3	13.3	59.8	15.2	54.4	14.3	54.2	14.4	55.0	7.0
Social functioning	54.1	12.0	52.9	9.5	57.6	9.8	56.4	13.0	53.8	11.1	53.9	10.6	53.0	9.4	55.9	14.3	53.5	10.8	54.6	11.7	55.0	7.0
Vitality	63.0	15.6	60.7	13.8	59.4	13.6	54.0	14.6	62.2	14.8	62.1	13.5	61.3	15.0	63.9	14.8	63.1	15.0	59.2	14.5	77.5	10.6
Emotional role	75.5	33.8	60.7	38.2	63.7	39.6	59.1	37.2	69.2	36.5	67.7	35.9	66.1	37.2	78.4	32.7	71.8	35.2	64.3	38.5	66.6	47.1
Mental health	60.0	16.6	55.3	13.3	54.1	15.9	50.8	16.4	58.0	15.5	58.4	15.0	56.0	14.2	63.3	17.9	58.7	15.7	56.6	15.4	46.0	14.1

OPD = outpatient department; IPD = inpatient department

from drugs are considered as duration and dose response relationship[9], which according to the hospital regulation, the patient with serious condition did not participated in this study. 3) The sample had the highest means of quality of life in PF and the lowest was SF. This might relate to the age of respondent, physical health are at the high level and the drug user were mostly mental dependent. The result was consistent with the study of Daeppen et al, which found that alcoholism had quite high quality of life score of physical fitness[10] and the alcoholism felt that they were not sick. Saatcioglu et al[11] study on alcoholism, after 3 to 6 weeks of rehabilitation, the quality of life of physical, mind, and environment increased, but SF had no difference. Furthermore, it was found that seductive drug patients: opium, morphine, heroine had lower quality of life than others because it caused discomfort and illness. 4) The quality of life in each dimension by hospital were significantly different, it might due to the different scale of mission and potential. Some hospital focused on general patient care. Whereas some hospital is a specialized medical institution for the treatment of psychiatry, MH and drug addicts patients[12]. In additions, there might be other different characteristics of the drug dependents patients: age, education, occupation, drug use, type of drug use, treatment system, forms, and method of treatment as outpatient and inpatient, and travel vehicles. 5) The last issue was the patients had lower quality of life in all dimensions except PF may related to the effects of drug use, it makes them feel brawny, and increase efficiency and productivity in working such as stimulant drugs; Amphetamine, Methamphetamine, or Mitraqynine in accordance with the processes of the brain when taking Methamphetamine, would increase the secretion of neurotransmitter dopamine so the brain was stimulated, felt awake[13]. The study results found the lowest means of patients' quality of life in SF dimension reflected the patients' social stigma which was social reaction on person and self-stigma, the way to lower oneself from being normal people[14]. It consisted of social stigmatization awareness, found that the level of Social stigma on the group of drug addiction was at: radical level (34.80%), high level (20.10%), and average level (25.80%)[15]. The results of the effectiveness of the treatment and rehabilitation of drug addicts showed the social acceptance of the family of the patients accept/support them more than the community[16]. In order to relieve or help patients, rehabilitation program should promote community level and societies' role in concrete and integrated treatment and rehabilitation of drug addicts[17], subject to the Principles of Drug Addiction Treatment which took into account on the rights and dignity of the human being[18].

Conclusion

About half of the drug patients had a similar GH as last year. The highest mean of the quality of life was PF and the lowest was SF. The quality of life of sedative drug users was the lowest, comparing to those who use stimulant and combination drugs.

What is already known on this topic?

Although there is much effort to improve the treatment of drug abuser patients, there was no published study about the issue of quality of life of the patients.

What this study adds?

The present study obtains the information about the quality of life of the drug-addict patients in eight domains (PF, RP, BP, GH, SF, VT, RE, and MH). The results can be used to support diagnosis and treatment planning including the strengthening of incentives to obtain rehabilitation, reduction of drug use, and even drug quit, which would lead to a better and more successful outcome of the treatment programs for drug-addict patients.

Acknowledgement

The authors would like to thank to Graduate School, Khon Kaen University for the first semester 2013 grant in data collection of this research.

Potential conflicts of interest

None.

References

1. United Nations Office on Drugs and Crime (UNODC). World drug report 2015. Geneva: UNODC; 2015.
2. United Nations International Drug Control Programme (UNDCP). The social impact of drug abuse [Internet]. 1995 [cited 2015 Aug 13]. Available from: http://www.unodc.org/pdf/technical_series_1995-03-01_1.pdf
3. Administrative Committee of Substance abuse Academic Network, Office of the Narcotics Control Board Ministry of Justice. Status of substance use in B.E 2011. Bangkok: Office of The Narcotics Control Board, Ministry of Justice; 2012

4. Ministry of Public Health. Report system follow up and surveillance system of drug problems [Internet]. 2015 [cited 2015 Aug 13]. Available from: http://antidrug.moph.go.th/beta2/
5. Sitdhiraksa N, Sirisuwannarat S, Singhakant S, Saisavoey N, Pariwatcharakul P, Thongchot L, et al. Study of quality of life in alcohol dependent patients at Siriraj and Sritanya Hospitals. J Psychiatr Assoc Thai 2012; 57: 185-98.
6. Watcharee Leurmarnkul, Paranee Meetam. Properties Testing of the Retranslated SF-36 (Thai Version). Thai J Pharm Sci 2005; 29: 69-88.
7. Kongsakon R, Silpakit C. Thai version of the medical outcome study 36 items short form health survey (SF-36): an instrument for measuring clinical results in mental disorder patients. Rama Med J 2000; 23: 8-19.
8. Ministry of Public Health. Reported follow up and surveillance system of drug problems [Internet]. 2016 [cited 2016 Feb 12]. Available from: http://antidrug.moph.go.th/beta2/
9. National Institute on Drug Abuse (NIDA). InfoFacts: Understanding drug abuse and addiction [Internet]. 2011 [cited 2016 Jan 22]. Available from: http://www.drugabuse.gov/publications/infofacts/understanding-drug-abuse-addiction
10. Daeppen JB, Krieg MA, Burnand B, Yersin B. MOS-SF-36 in evaluating health-related quality of life in alcohol-dependent patients. Am J Drug Alcohol Abuse 1998; 24: 685-94.
11. Saatcioglu O, Yapici A, Cakmak D. Quality of life, depression and anxiety in alcohol dependence. Drug Alcohol Rev 2008; 27: 83-90.
12. Cabinet and Royal Gazette Publishing Office [CGPO]. Reorganization of Ministry, Sub-Ministry, and Department Act, B.E. 2545 (2002). Bangkok: CGPO; 2002.
13. National Institute on Drug Abuse (NIDA). Drugs, brains, and behavior the science of addiction. Washington, DC: NIH Publication; 2014.
14. Major B, O'Brien LT. The social psychology of stigma. Annu Rev Psychol 2005; 56: 393-421.
15. Duangjampha B, Kanato M. A Comparative study on Social Stigma regarding Illicit Drugs between Drug Users and general population in Nampong District, Khon Kaen Province. Community Health Development Quarterly Khon Kean University 2015; 3: 201-10.
16. Yanjinda S, Kanato M. Effectiveness of treatment and rehabilitation for drug users in Na Khaem Sub-district, Mueang District, Loei Province. Community Health Development Quarterly Khon Kean University 2015; 3: 343-56.
17. United Nations Office on Drugs and Crime (UNODC). Community based treatment and care for drug use and dependence [Internet]. 2014 [cited 2016 Aug 10]. Available from: http://www.unodc.org/documents/southeastasiaandpacific/cbtx/cbtx_brief_EN.pdf
18. The National Institute on Drug Abuse (NIDA). Principles of drug addiction treatment: a research-based guide. Washington, DC: NIH Publication; 2012.

คุณภาพชีวิตของผู้ป่วยยาเสพติดที่เข้ารับการบำบัดรักษาในสถานบริการสุขภาพของรัฐ ในจังหวัดสงขลา

ภัชชนก รัตนกรปรีดา, สุชาดา ภัยหลีกลี้

วัตถุประสงค์: *เพื่อศึกษาคุณภาพชีวิตของผู้ป่วยยาเสพติดที่เข้ารับการบำบัดรักษาในสถานบริการสุขภาพของรัฐ 4 แห่ง ในจังหวัดสงขลา*

วัสดุและวิธีการ: *การศึกษาพรรณนาภาคตัดขวาง กลุ่มตัวอย่าง คือ ผู้ป่วยที่รับการบำบัดรักษายาเสพติดทั้งผู้ป่วยนอกและแบบผู้ป่วยใน ในโรงพยาบาลหาดใหญ่ โรงพยาบาลสงขลา โรงพยาบาลธัญญารักษ์สงขลา และโรงพยาบาลจิตเวชสงขลาราชนครินทร์ ระหว่างเดือนกรกฎาคม ถึง กันยายน 2556 ทั้งหมด 749 ราย เครื่องมือที่ใช้เป็นแบบสอบถามคุณภาพชีวิต The Short-Form Health Survey-36 (SF-36) ฉบับภาษาไทย วิเคราะห์ข้อมูลลักษณะทั่วไป และคุณภาพชีวิตของผู้ป่วยยาเสพติดด้วยสถิติพรรณนา เปรียบเทียบความแตกต่างของคุณภาพชีวิตระหว่างโรงพยาบาลด้วย one-way ANOVA*

ผลการศึกษา: *ผลการประเมินระดับสุขภาพตนเองของผู้ป่วยยาเสพติดมีสุขภาพของตนเองเหมือนกับปีที่แล้ว ร้อยละ 50.2 ทั้งนี้ กลุ่มตัวอย่างมีค่าเฉลี่ยของคุณภาพชีวิตมากที่สุด คือ มิติด้านสมรรถภาพทางกาย (physical functioning) 94.6±10.9 คะแนน ส่วนมิติที่มีค่าเฉลี่ยน้อยที่สุด คือ มิติด้านกิจกรรมทางสังคม (social functioning) 53.8±11.1 คะแนน สอดคล้องกับการใช้ยาประเภทยาเสพติดที่ใช้ ระบบการบำบัดรักษา รูปแบบ และวิธีการรักษา โดยเป็นไปในทิศทางเดียวกันทั้ง 4 โรงพยาบาล ส่วนการเปรียบเทียบคุณภาพชีวิตรายมิติ พบว่ามีความแตกต่างกันระหว่างโรงพยาบาลทั้ง 8 มิติ อย่างมีนัยสำคัญ สำหรับการเปรียบเทียบกับประชาชนทั่วไป พบว่าผู้ป่วยยาเสพติดมีคุณภาพชีวิตต่ำกว่าทุกด้าน ยกเว้นด้าน physical functioning*

สรุป: *ส่วนใหญ่ผู้ป่วยมีระดับสุขภาพทั่วไปเหมือนกับปีที่แล้ว คะแนนเฉลี่ยคุณภาพชีวิตมากที่สุดในมิติด้านสมรรถภาพทางกาย ส่วนมิติที่มีค่าเฉลี่ยน้อยที่สุด คือ มิติด้านกิจกรรมทางสังคม และมีคุณภาพชีวิตต่ำกว่าประชาชนทั่วไปเกือบทุกด้าน ยกเว้นในมิติด้านสมรรถภาพทางกาย*