Quality of Life among Women Living with HIV/AIDS in Yangon, Myanmar

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Objective: Women living with HIV/AIDS have many problems, especially in their quality of life. Although they receive ART, they still experience stress and are discriminated against in their communities. Stigmatization, social support and other individual factors such as disease progression, economic status and gender role are determinants of quality of life among women living with HIV/AIDS. This cross sectional study was aimed to measure the quality of life among women living with HIV/AIDS in Yangon and to identify the factors that are able to predict it.

Material and Method: 172 women living with HIV/AIDS, were included in the present study and were interviewed by using questionnaires. The WHOQOL-BREF form with 26 items was used for assessing the quality of life, then t-test and regression analysis was used for statistical analysis.

Results and Conclusion: Overall quality of life all domain scores were presented with transformed score (0 to 100 scale) for comparison, and the mean score was 79.7. Physical domain was the highest with a score of 58.19, social domain was 56.49, psychological domain was 48.54 and environmental domain was 46.84. A total of 64.5% had experienced a low level of perceived stigma, and only 0.6% experienced a high level of perceived stigma. Only 7% had good social support and 22.1% had low support. Social support, last CD4 count, family income per month, age, stigma and duration of treatment were determined as the significant predictors on quality of life after controlling for other factors. The factors could explain 22% of the variation in quality of life. In the absence of good social networks, peer group support, family involvement and support, reduction of stigma through multi-sectored approaches, women with HIV/AIDS will continue to suffer poor quality of life, less enjoyment and poor life satisfaction.

Keywords: Quality of life, Perceived stigma, Social support, Women living with HIV/AIDS

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Myanmar has one of the largest HIV epidemics in Asia. According to the UNGASS report 2010, it was estimated that around 238,000 people are living with HIV in Myanmar in 2009 with estimated incidence of more than 10,000 new infections per year. At the same time, the male to female ratio decreased to 2.4:1 which show the number of female getting HIV infection has increased⁽¹⁾. Since potent antiretroviral therapy first became available in 1996, survival of patients living with HIV (PLHIV) has improved⁽²⁾. Though ART cannot kill the virus, it protects the virus replication inside the body, which in turn reduces the mortality and morbidity⁽³⁾. The objective of ART is to reduce mortality and morbidity and improve the quality of life of patients living with HIV (PLHIV)⁽⁴⁾. According to data from year

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2009, 74,000 PLHIV were still in need of ART in spite of combined efforts for ART comprehensive care and support⁽⁵⁾. Better and Undisruptive Delivery Support (BUD) is a community based organization to help pregnant women with HIV infections who live under vulnerable conditions. The organization helps in prevention of HIV from mother to child transmission (PMTCT). In Myanmar, quality of life is not usually cared about and given attention. Therefore, the present study was aimed to assess the quality of life of women living with HIV (WLHIV) and predicting factors. This study will also be a useful reference for information on HIV care and support programs in Myanmar in the future.

Objective

- 1. To measure the quality of life, general characteristics, clinical factors and social factors in women living with HIV/AIDS.
 - 2. To explore the difference in quality of life in

relation to general characteristics, clinical and social factors among women living with HIV/AIDS.

Research design

This cross sectional study with cluster sampling method was conducted on women who had registered in a community based organization called "Better and Undisruptive Delivery Support" in Yangon, Myanmar during February 1 to February 24, 2011. The data were collected by trained interviewers. Total samples were 175 respondents who were HIV infected and were receiving treatment for at least 6 months.

Research instruments

Study was conducted by using questionnaires. The questionnaires contained four parts: 1) General characteristics, 2) Clinical factors, 3) Social factors, and 4) Quality of life of women living with HIV/ AIDS. WHOQOL-BREF format was used for the assessment of quality of life. It included 26 items for four domains⁽⁶⁾. Reliability was tested and the result was Cronbach's Alpha Coefficient for stigma that was equal to 0.799, for social support it was 0.729 and for QOL it was 0.744. For descriptive analysis, frequency and percentage was used to describe the distribution of each variable. For inferential analysis, ANOVA and independent samples t-test were used to compare the mean QOL among different groups of independent

Table 1. Level of stigma towards HIV among 172 women living with HIV/AIDS

Level of stigma	Number	Percent
Low	111	64.5
Moderate	60	34.9
High	1	0.6
Mean score \pm SD	49.3	3 <u>+</u> 7

variables. Multivariate stepwise regression analysis was also applied to determine the relation between independent variables and QOL and to find the predictors in QOL.

Results

Among 172 respondents, the majority were in the age group of 20 to 29 years and 30 to 39 years, comprising nearly 50% each. The maximum age was 43 years while the minimum was 20 years. In education status, one-third of respondents had complete secondary and primary school. The majority (67.4%) was married while 26.7% were divorced/separated or widowed. Concerning occupation, one-third of the 172 were housewives and small business workers (shops) made up 36% and 37.2%, respectively. Very few (8.1%) were government/company employees. Most women (65.1%) had an income status of 50,000 to 100,000 kyats per month. On the other hand, only 11.6% had an income of more than 100,000 kyats. The smallest income was 20,000 and the maximum was 200,000. Most (43%) were from a family of 3 to 4 members while the rest were from family of more than 4 members. The largest family sizes were those with 12 members and smallest size had 3 members. Nearly three-fourth (74.4%) of the respondents had 1 to 2 children. There was no respondent found with more than 5 children. More than one-third (39.5%) were living in extended families. Another 35.5% were living with children and other relatives without a husband. Partners of respondents, who were HIV positive, represented 65.1%, while 16.3% were with HIV negative partners. Partners' status of those who were separated, divorced or widowed was also accounted for. More than half of the respondents' children were HIV negative at 51.2%. Among 172 respondents, 51.2% live in the areas which are 5 to 10 miles away from health services, while 48.8% live a little bit closer, i.e. less than 5 miles from health services.

Table 2. Level of perceived social support and source of support among 172 women living with HIV/AIDS

Social support	High moderate low						
	Number	%	Number	%	Number	%	
Health care providers	47	27.3	114	66.3	11	6.4	
Family	8	4.7	90	52.3	74	43.0	
Peers	17	9.9	93	54.1	62	36.0	
Overall	12	7.0	122	70.9	38	22.1	
Mean score + SD			55.6+6.5				
Range			37.0-69.0				

Clinical factors among women living with HIV/AIDS.

Of the respondents, 38.4% knew their HIV status for more than 36 months. Few people (5.8%) were HIV infected for less than 12 months. Concerning the duration of treatment, more than one-third of the respondents (39.5%) had undergone treatment for 24 to 35 months, and 29.1% had treatment for more than 36 months. Half of the respondents were stage II clients while one-third (33.7%) were at stage III. Among WLHIV, nearly two-third (61.6%) had already received ART. Three-fourths of the respondents (75.6%) had CD4 for more than 350 units within the last three months. Mean CD4 of the respondents were 482 units (±175) with minimum 98 units and a maximum of 1,189 units. All the respondents had taken treatment from the NGO services.

Disclosure status and mobility status

90.7% of respondents reported that they disclosed about their HIV status to family, to their husband at least. 31.4% had moved to another living place within Yangon in the last 2 years. Among them, 63% said that it was more convenient to go to health services after moving.

Perception on stigma towards HIV

Regarding the response and perception of stigma, feelings that they cannot work as well as others because of HIV and feeling that they would not make good mothers to children because of their HIV status were the stigma items that respondents were concerned with the most. They marked "agree" on the survey at rate of 84.9% and 80.2% in each item. Stigma concerning disclosure issues came in after the above two. They felt worried that people who knew their HIV status would tell others about it (68.1%) and felt worried that people would know their HIV status because they were undergoing treatment from the clinic (63.4%). Among the stigmas concerned, 65.1% of them agreed with the survey item of feeling afraid that people would discriminate against their families and children.

Level of stigma towards HIV

A majority (64.5%) had low level of stigma. Only 0.6% had high stigma. The mean score for stigma was 49.3±7.

Perceived social support

In social support, 97.7% of the respondents agreed that health care providers treated them very well and gave good advice. The same percentage of

agreement was also found in information support given by the health care providers. High percentages of "agree" were found in all the items of health care providers' support. In family support, the highest percentage of the answer "agree" went to the support of reminder to take drugs with 72.7%. Emotional support from family was also common with 68% or respondents marking "agree". In peer support, the highest percentage of "agree" (70.4%) was in giving necessary information, but thinking that peers were ready to help was only at 48.8%. Overall, only 7% received a good level of social support. Most (70.9%) received moderate social support, followed by 22.1% of those with a low level of support. High social support was mostly attained by health care providers with 27.3%, while good support from family and peer were only 4.7% and 9.9%, respectively.

Quality of life among women living with HIV/AIDS

Overall, more than half (55.8%) of the respondents indicated a feeling of good health, although, in perception on quality of life, only 39% indicated "good" and 28.7% "poor". In the physical domain, 26.2% were dissatisfied with their ability to perform daily activities and 26.7% could be satisfied a little, in sleeping. At the same time, 20.9% were little satisfied with their energy for daily life. Only 12.2% reported that physical pain prevented them very much from doing activities. In the social domain, they were satisfied very much on personal relationships, sex life and support from friends at 59.9%, 47.7% and 42.5%, respectively. These percentages were higher than those of dissatisfaction were. In the psychological domain, only 13.4% of respondents showed they enjoyed their lives very much. A very low percentage of respondents (9.3%) and (3.5%) had the feeling of a meaningful life and ability to concentrate well. But their response demonstrated that 43% were satisfied with themselves very much. Concerning negative feelings, 34.9% reported that they felt negative very often, while 36.6% of respondents reported seldom feeling negative. In the environmental domain, most (55.2%) responded that they had little money to meet their needs and 26.7% responded they had no money at all to meet their needs. Most of the respondents reported 45.3% and 45.9%, respectively, that they had little amount of available information and few opportunities for leisure. About 39.5% of them said that they were satisfied very little with their living conditions. For their perception on overall quality of life and satisfaction with health, 61.0% and 40.2% perceived they were at a good quality of life

Table 3. Perception on overall quality of life and satisfaction on health among 172 women living with HIV/AIDS

	Percent				
	Very poor	Poor	Neither poor nor good	Good	Very good
Overall perception on life and health					_
1) Overall quality of life	0.6	28.7	36.6	39.0	1.2
2) Satisfaction on health	0.6	14.5	23.8	55.8	5.2

Table 4. Distribution of level of quality of life overall and each domains based on the criteria by the WHOQOL-BREF-THAI

			Level o	f QOL					
	Go	Good Moderate Poor							
	n	%	n	%	n	%			
Physical	46	26.7	108	62.8	18	10.5			
Psychological	13	7.6	121	70.3	38	22.1			
Social relationship	45	26.2	92	53.5	35	20.3			
Environment	1	0.6	134	77.9	37	21.5			
Overall QOL	23	13.4	123	71.5	26	15.1			

Table 5. Test for significant difference in QOL among different groups of variables in general characteristics among 172 women living with HIV/AIDS variables

	p-value
Age group (years)	0.014ª
Education status	0.001°
Marital staus	0.347a
Occupation	0.099°
Income per month	0.001°
Duration of treatment	0.003^{a}
CD4 count within last 3 months	0.038^{b}
Level of perceived stigma	0.007^{b}
Level of perceived social support	0.002°

a = p-value from ANOVA test; b = independent samples ttest; c = p-value from Kruskal Wallis test

on health and overall quality of life, respectively (Table 3). Based on the criteria by the WHOQOL-BREF-THAI, more than one-fifth perceived that they had poor quality of life in psychological, social relationship and environment domains (Table 4).

For statistical testing, there were differences between mean score of QOL among different age

groups, education level and income at p-value = 0.014, 0.001 and 0.001, respectively. A better score was found in the older age group. The highest score of 88 was found in the over 39-year group. Primary school, high school and levels above had the highest mean scores of 83.36 and 83.35, respectively. The mean QOL score was better in the higher income group. The mean score was 89.55 in incomes more than 100,000 ks. Among five variables of clinical factors, duration of treatment and CD4 count within last 3 months showed significant difference in OOL. Duration of treatment showed different QOL with p-value = 0.003. The mean score was lowest in those who received treatment for less than 12 months. On the other hand, the duration of HIV status, ART status and WHO staging did not show significant difference in QOL. Among social factors, perceived stigma and perceived social support showed significant difference in QOL at p-value = 0.007. Those with lower levels of stigma gave higher scores in QOL (81.72). Perceived social support demonstrated different QOL at p-value = 0.002. The higher the level of social support they got, the better the quality of life they had. However, disclosure status and mobility status did not show any significant difference in QOL among WLHIV.

Regression analysis showed that duration of

Table 6. Stepwise multiple linear regression analysis of factors associated with quality of life among 172 women living with HIV/AIDS

Variable	R2 adjusted	Beta	Beta adjusted	SE	p-value
Social support	0.22	0.369	0.181	0.152	0.017
Last CD4 count		0.012	0.151	2.006	0.043
Income		0.00009155	0.224	0.0	0.002
Age		0.557	0.212	0.19	0.004
Stigma		-0.381	-0.198	0.141	0.007
Duration of treatment		-0.094	-0.148	0.046	0.042
Constant		51.821	12.345		< 0.001

treatment was selected as the sixth variable, together with social support, last CD4, monthly income, age and stigma. These variables could explain the variation of quality of life to be 22% (R_2 adjusted = 0.22).

The prediction equation based on the regression model was formulated as

Quality of life among women living with HIV/ AIDS = 51.821 + (0.181) social support + (0.151) CD4 count women living with HIV/AIDS + (0.224) Income + (0.212) Age - (0.198) stigma - (0.148) duration of treatment.

From the above equation, those who had high social support, increased in the CD4 count, increased monthly income, and those in the older age group tended to have higher quality of life stigma and duration of treatment were not supportive.

Discussion

In the present study, overall, 13.4% of the respondents had a good level of quality of life, according to WHOQOL-BREF-THAI criteria as recommended by Dr. Suwat Mahanirankul. It was less than 26.1% of good quality of life from the study done by Yin Win Khin at MSF clinic in Yangon, Myanmar in 2006, using the MOSHIV survey questionnaires⁽⁷⁾. The reason might be due to using different research instruments, different scoring systems, even though it was conducted in the same town in Myanmar. In the study by Mahatnirankul et al⁽⁸⁾, which was conducted in Thailand in 2000 with the same instruments, it was found that 20.5% had a good quality of life. The difference would probably be due to the difference in geographical area, sample size, sample characteristics and different populations. Moreover, the present study was done only among the women so that the results for a good level might be less than that of previous studies, which were done in both men and women.

After converting into a transformed score (0-100 scale), it was found that physical domain had the highest score. It was also consistent with the present study of HRQOL among HIV infected Latinos along the US-Mexico Border in 2010 by Zuniga et al⁽⁹⁾ in which physical domain was higher than other domains. However, it was different from the study of QOL among HIV infected persons in India done by Kohli RM et al(10) where scores in the physical domain (56-61) was remarkably lower than other domains among women. The lowest scores were found in psychological and environmental domains, which was also consistent with the findings from the present study by Huanguang Jia et al(11) on QOL among men with HIV infection, in which psychological scores (mean 68.8) were much lower than physical (mean 82.5) and social (mean 72.8) domain scores. However, in each domain scores were still higher than this study (48.54 in psychological, 58.19 in physical and 56.49 in the social domain). Most of the facets in the physical domain showed good score which would be due to the better treatment and care system, and better awareness of clients in adherence to the drugs and the positive living. Most of the respondents (68.8%) were on treatment for more than 2 years so that they already had experience in proper adherence and how to live well. In the psychological domain, facets such as positive feelings, thinking and concentration were the ones which were only little or moderately fulfilled in the present study. The majority of issues were in the troubles of financial, family and social problems, in addition to carrying HIV, which made them, feel down and meaningless. However, it would also depend on an individual's copying mechanism, psychological status and family support. In the environmental domain, nearly all facets such as financial resources, physical safety, the physical environment, opportunities for information and leisure activities, and the home environment demonstrated low levels of

fulfillment. Low socioeconomic status and living in slums with unsatisfactory housing conditions were the main factors for that population to be in a low quality of life in the environmental domain. It was also shown by the results of income status in which more than half of respondents had income of only 50,000 to 100,000 ks per month. This was the reason for a poor quality of life. Most reported that they had to live in very small apartments while some had to live and depend on relatives. Another important thing to be pointed out was that most of the women received little in the way of daily information that was needed, and had few opportunities for leisure. The result would probably increase if the present study would be done in men. They mentioned that most of their time was spent caring for young children and earning money. It was revealed that age and income were the significant predictors in QOL and these variables could explain the variation of QOL. Those older in age between 30 to 43 years tended to have a better quality of life. This was opposite to the findings of the study done in Western Uganda by Bajunirwe et al⁽¹²⁾. However, in the study of life satisfaction in HIV positive Nepali women reported by Eller and Mahat⁽¹³⁾, age is not a significant predictor of life satisfaction. But in the present study, age was a significant predictor in OOL and positively associated with QOL. However, the differences were acceptable because of the different background and context. From interviews, it was found that women who were over 30 years showed more satisfaction with their lives, which might be due to much experience in life, and the better resilience they had, the more they could cope. Income was another significant predictor in the quality of life. It was also consistent with the study done by Itsuko Yoshida⁽¹⁴⁾ in 2001 in Bangkok. Economic status mainly contributed to the psychological and environmental aspects and to the extent of family support. In the present study of Carolyn et al⁽¹⁵⁾, financial status could explain the variation in QOL with other variables. Furthermore, it was well known that poverty can worsen a person's chronic health problems (Delgado) and a mental status such as depression and other mental illnesses, severely affect the quality of life as well. Clinical parameters such as CD4 count not only affect the disease progression but also on the quality of life of PLHIV. It was found that CD4 had a significant relationship with QOL and could explain the 1.9% variation in quality of life. In the present study, in regression model, it explained variation of QOL with negative beta weight (-0.148). Better QOL was found in those with a lower level of perceived stigma. This also confirmed that higher perceived stigma scores correlated significantly and negatively with QOL with a negative beta value of (-0.198). This finding was similar to a study on stigma and social barriers to medication adherence with urban youth living with HIV AIDS Care⁽¹⁶⁾, which found that HIV stigma had impact on treatment for youths at several levels, from the follow-up to meet with health care providers until the drug adherence and consequential to health outcomes. Social support was the strongest significant predictor, explaining a 12.3% variation in QOL. This finding was consistent with the study by Busisiwe P. Ncama⁽¹⁷⁾ in 2008 in South Africa in which, social support explained 17.3% of QOL.

Conclusion

In quality of life, the overall mean score was 79.7. Physical and social domains had a high mean score of 58.19 and 56.49, respectively. Psychological domain showed only 48.54 and environmental domain was only 46.84. QOL was significantly different within age, education, monthly income, and duration of treatment, CD4 count within the last 3 months, perceived stigma and perceived social support. In stepwise multiple regression models, age, income, CD4 count within the last 3 months, duration of HIV treatment, perceived stigma and social support were found as significant predictors in the QOL. The findings indicated that WLHIVs need more social networks where they could have the chance to meet with peers, share their problems and reduce stigmatization. Therefore, international and local organizations and government health sectors, which work on HIV, should organize positive support groups in the areas. In addition, income generation programs should also be strengthened for sustainability.

Potential conflicts of interest

None.

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คุณภาพชีวิตของผู้หญิงติดเชื้อเอชไอวี/เอดส์ในเมืองยางกุ้ง, สาธารณรัฐเมียนมา

สุวัฒน ์ศรีสรฉัตร,์ ซึน ไล ซอว,์ กนิษฐา จำรูญสวัสดิ์

วัตถุประสงค์: ผู้หญิงที่คิดเชื้อเอชไอวี/เอดส์ ประสบปัญหาในการคำเนินชีวิตโดยเฉพาะปัญหาคุณภาพชีวิตแม้ว่าผู้ติดเชื้อไคร้บยาตา้นไวรัส แต่ผู้คิดเชื้อ ยังมีปัญหาความเครียดและการถูกกีดกันจากชุมชนการคีตราทางสังคม แรงสนับสนุนทางสังคมและปัจจัยสวนบุคคลเช่น ความรุนแรงของโรค ปัจจัยทาง เสรษฐกิจและบทบาททางเพส ล้วนเป็นเหตุกำหนดคุณภาพชีวิตของผู้หญิงติดเชื้อเอชไอวี/เอดส์ การศึกษาแบบภาคตัดขวางครั้งนี้ มีจุดมุ่งหมายที่จะวัด คุณภาพชีวิตของผู้หญิงที่คิดเชื้อเอชไอวี/เอดส์ที่อาสัยในเมืองย**่างกุ้ง และหาป**ัจจัยที่มีความสัมพันธ์และทำนายคุณภาพชีวิต

วัสดุและวิธีการ: ในการศึกษาครั้งนี้ใช้กลุ่มตัวอยาง 172 ราย เก็บข้อมูลโดยใช้แบบสอบถามที่ประกอบด้วยข้อมูลทั่วไป การรับรู้เกี่ยวกับโรคเอดส์ และแบบประเมินคุณภาพชีวิตขององค์การอนามัยโลกฉบับย[่]อ (WHOQOL-BREF) ที่ประกอบด้วย 26 คำถาม การทดสอบทางสถิติใช^{*} การทดสอบที และการวิเคราะห์การถดถอย

ผลการศึกษาและสรุป: ภาพรวมของคุณภาพที่ได้มีการปรับคะแนนเป็น 100 คะแนน เพื่อให้สามารถเปรียบเทียบกับการศึกษาอื่นได้ พบว่าคะแนน คุณภาพชีวิตเฉลี่ยเท่ากับ 79.70 คุณภาพชีวิตด้านกายภาพเท่ากับ 58.19 ด้านสังคมเท่ากับ 48.54 ด้านสิ่งแวดล้อมเท่ากับ 46.84 ผู้คิดเชื้อ ร้อยละ 64.50 ที่รับรู้อยู่ในระดับต่ำว่าตัวเองถูกตีตราทางสังคม ในขณะที่ ร้อยละ 0.6 ที่รับรู้ระดับสูงว่าถูกคีตราทางสังคมในด้านการได้รับการสนับสนุน ทางสังคมมีสตรี ร้อยละ 7.0 ที่รับแรงสนับสนุนทางสังคมระดับสูงและ ร้อยละ 22.1 ได้รับแรงสนับสนุนทางสังคมระดับต่ำ ปัจจัยด้านแรงสนับสนุน ทางสังคม จำนวน CD4 รายได้ครอบครัวต่อเดือน อายุของสตรี การคีตราทางสังคม และระยะเวลาการรักษาโรคเอดส์สามารถทำนายระดับคุณภาพชีวิต ของผู้ติดเชื้อได้ ร้อยละ 22.0 หลังจากควบคุม ปัจจัยอื่น ๆ แล้ว ดังนั้นหากผู้ติดเชื้อขาดขาดเครือข่ายทางสังคม ขาดการสนับสนุนทางสังคมจากกลุ่มเพื่อน ขาดการสนับสนุนและการมีส่วนรวมของครอบครัว การไม่สามารถลดการตีตราทางสังคมและการสนับสนุน จากภาคีเครือข่ายจะทำให้ผู้ติดเชื้อต้องทนทุกข์ กับการมีคุณภาพชีวิตที่ต่ำขาดความสุขและมีความพึงพอใจในชีวิตต่ำ