Original Article

Quality of life and its correlation with violence and social support among women with HIV/AIDS in Shiraz, Iran, in 2015

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Abstract

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Background: Acquired immune deficiency syndrome (AIDS) is a fatal viral disease which can affect the patient's immune system and render the patient susceptible to opportunistic infections. In recent years, the number of women with HIV acquired through sexual transmission has increased. Therefore, due to the importance of quality of life (QOL) among these women and the impact of violence and social support on their QOL, this study can assist in the recognition of effective factors on QOL of these patients.

Materials and Methods: The study population of this descriptive study consisted of all patients with Human immunodeficiency virus infection/AIDS (HIV/AIDS) who had medical records at the Behavioral Disorders Counseling Center of Shiraz, Iran. To assess QOL, violence, and social support among these patients, the World Health Organization Quality of Life (WHOQOL) scale and the Domestic Violence Questionnaire (DVQ) plus Social Support Questionnaire (SSQ) were used. The collected data were analyzed using Independent two-sample t-test, ANOVA, and correlations.

Results: The QOL and SSQ scores of single individuals were higher compared to other groups and violence was lower in this group. The QOL and SSQ scores of residents of rural areas were lower compared to residents of urban areas. Moreover, the violence score of this group was higher. The QOL and SSQ scores of individuals with higher educational level and better economic status were higher than other groups, but their violence score was lower.

Conclusions: Total mean QOL, violence, and social support scores were assessed in the present study. Based on the correlation found between these variables, it can be concluded that women with HIV/AIDS require more social support so that their QOL, which is one of the main determinants of health, can be improved.

Keywords: AIDS, Quality of Life, Violence, Social Support

Introduction

Acquired immune deficiency syndrome (AIDS) is a fatal viral disease which can affect the patient's immune system and render the patient susceptible to opportunistic infections (1). AIDS has caused many problems in the dimensions of physical, mental, and social health worldwide (2). In the third decade of its emergence, AIDs has become one of the chief health, social, and political issues in many countries due to its pandemic nature, high incidence rate among human societies, long incubation period, and lack of a treatment and complete recovery (3). Presently, AIDS is the fourth leading cause of death in the world and its outbreak has affected almost every countries in the world and all age, gender, racial, and cultural groups (4, 5).

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The incidence rate of this disease from 2000 to 2014 has shown an increasing trend; it has increased from 28.6 million infected individuals in the year 2000 to 36.9 million in 2014 (6). The majority of cases of AIDS are young individuals, and the World Health Organization (WHO) has reported that 7000 young individuals of 10-24 years of age are infected with this disease per day worldwide (7). Based on the most recent report by the National Center for AIDS Prevention in Iran (until December 2013), more than 27 thousand individuals with AIDS have been identified, 11% of which were women (8).

In recent years, the number of women with HIV acquired through sexual transmission has increased, and with increase in the number of pregnant women, the number of children with AIDS has also increased. Although the prevalence of AIDS is not high among children, the increasing trend in cases of HIV acquired through sexual transmission will increase the severity of this problem among children and widespread interventions for the prevention of HIV among children is currently necessary (9).

Women's health is an indicator of development, because women are more vulnerable than men due to their physiological conditions in different stages of life, and physical needs regarding reproduction and its consequences. Women's health is a foundation of family and society, and has grave importance in the providing and sustaining of familial and social health (10, 11). Health is one of the main determinants of quality of life (QOL); therefore, poor health and chronic diseases, such as AIDS, have negative effects on QOL (12).

The concept of QOL is complicated and is affected by physical health, mental status, personal beliefs, social relationships, and environmental factors. The importance of QOL evaluation is to an extent that some scholars have defined QOL improvement as the most important treatment interventions. This is of the greatest importance among individuals with chronic diseases for which no definite cure has been recognized (13).

Another factor which has a negative impact on the physical and mental health of the individual is domestic violence which comprises a range of intentional physical, mental-emotional, verbal, and sexual abuses. Domestic violence against women is the most common form of abuse which is usually perpetrated by the closest family members such as the spouse (14-16). As previously mentioned, many factors affect QOL, one of which is social support. Social support is the care, compassion, respect, consolation, and assistance the individual receives from other individuals or groups. This support can be provided through difference sources, such as the spouse, family members, relations, friends, colleagues, physicians, and social organizations (17, 18).

Previous studies have shown that the QOL of women with HIV/AIDS is not at a high level and is lower than that of men. Moreover, it is associated with factors such as family support, family abuse, educational level, and marital status (19-21). Thus, with the consideration of the importance of the QOL of women with AIDS and that Iran is in the third wave of this disease, the present study was conducted to determine QOL and its relationship with violence and social support among women with HIV/AIDS in Shiraz, Iran.

Material and Methods

This descriptive study was conducted in Shiraz in 2015. The study population consisted of all women with HIV/AIDS with health records in the Behavioral Disorders Counseling Center of Shiraz. The subjects were selected through consensus method. Among the 320 patients with health records, 60 patients did not refer to the center consistently. Of the remaining patients, 170 individuals (65.3%) were willing to participate in the study. To collect data, coded questionnaires were used; therefore, no questionnaire contained personal information such as name, surname, telephone number, and

address. All information was kept confidential. An informed consent was obtained from every participant before completing the questionnaires.

The World Health Organization Quality of Life (WHOQOL) scale was used to assess patients' QOL. The WHOQOL scale consists of 36 questions scored based on a 5-point Likert scale; option 1 with the lowest score and option 5 with the highest score, respectively, represent the worst and best status. The reliability of the WHOQOL scale has been evaluated using Cronbach's alpha and reported as 92% (22, 23).

To evaluate social support, the Social Support Questionnaire (SSQ) designed by Philips et al. was used. The SSQ consists of 23 questions scored on a 2-point scale (1 and 2). The reliability of the SSQ has been evaluated using Cronbach's alpha and reported as 74% (24).

The Domestic Violence Questionnaire (DVQ) designed by Mohsen Tabrizi was used to assess violence. This questionnaire consists of 31 questions scored on 4-point Likert scale, option 1 has the lowest score and option 4 the highest score. The Cronbach's alpha of this questionnaire has been reported as 83% (25).

The collected data were coded and entered into SPSS software (version 22, SPSS Inc., Chicago, IL, USA). The results were presented as mean ± SD for quantitative variables and as number (percentage) for qualitative variables. Data were analyzed using independent two-sample t-test, ANOVA, and correlations. The significance level in all tests was considered as 0.05.

Results

The study participants were 170 individuals with mean age of 36 ± 6.74 years. The majority of subjects were married and lived in urban areas. The education level of most of the participants was middle school. Most participants were homemakers; thus, 80% of subjects were not employed and had no income. The income of those who did have an occupation ranged from 50 to 500 $ per month.

ANOVA was used to compare mean QOL score of the participants based on marital status. The results showed a significant difference between the groups. To determine intergroup differences, Tukey's test was used. The results of Tukey's test showed no difference between single and married individuals in terms of mean QOL score; however, it showed a statistically significant difference between single and married individuals, and widows and divorcees. In addition, t-test was used to compare mean QOL score of subjects based on area of residence.

Table 1: Mean and standard deviation of the quality of life score of women with HIV/AIDS based on marital status, area of residence, and education level

Variable		N (%)	Mean ± SD	Maximum	Minimum	P-Value
Marital status	Single	31(18.2)	77.32±19.01	115	65	0.001*
	Married	101(59.4)	77.36±16.58	115	45	
	Widowed	20(11.8)	69.40±13.67	93	40	
	Divorced	18(10.6)	60.55±4.27	69	55	
Area of residence	Urban area	115(67.6)	78.16±17.45	115	45	0.001**
	Rural area	55(32.4)	67.27±12.31	84	40	
Education level	Illiterate	7(4.1)	63.57±6.02	73	55	0.001*
	Primary school	19(11.2)	65.16±18.40	115	40	
	Middle school	72(42.4)	69.77±13.07	115	45	
	High school	15(8.8)	76.93±17.13	115	45	
	Diploma	48(28.2)	81.16±13.97	115	47	
	Associate degree	5(2.9)	96.00±15.95	115	80	
	Bachelor's degree	4(2.4)	113.00±1.63	115	111	

* ANOVA test
** Independent two-sample *t*-test

Table 2: Mean and standard deviation of violence score of women with HIV/AIDS based on marital status, area of residence, and education level

Variable		Mean ± SD	Maximum	Minimum	P-Value
Marital status	Single	61.32±22.47	92	22	0.097*
	Married	63.20±19.24	109	22	
	Widowed	67.35±19.70	110	35	
	Divorced	74.16±5.71	88	62	
Area of residence	Urban area	61.71±20.54	88	22	0.001**
	Rural area	70.96±14.23	110	47	
Education level	Illiterate	72.28±12.16	85	47	0.001*
	Primary school	70.68±18.68	110	22	
	Middle school	67.65±15.34	93	26	
	High school	65.46±21.65	88	22	
	Diploma	62.18±19.37	109	22	
	Associate degree	37.00±20.54	60	22	
	Bachelor's degree	23.50±3.00	28	22	

* ANOVA test
** Independent two-sample *t*-test

The results showed a significant statistical difference between QOL and area of residence; the QOL of individuals living in urban areas was higher than those living in rural areas. The results of the comparison of QOL scores of individuals based on education level revealed a significant difference between mean QOL scores of individuals with university degrees and individuals with lower education levels (Table 1).

The results of the comparison of mean violence score of the subjects based on marital status showed a significant difference in the mean violence score of widows and other groups. The comparison of mean violence score based on area of residence showed higher rate of violence among individuals living in rural areas. Furthermore, the comparison of subjects' mean violence score based on education level showed that the mean score of individuals with a university degree differed significantly from other groups (Table 2).

Comparison of the participants' mean social support score based on marital status showed a difference between the mean social support score of single individuals and other groups. Moreover, the comparison of this score based on area of residence showed higher social support among individuals living in urban areas. The comparison of this score based on education level revealed a higher score among individuals with a university degree (Table 3).

Table 3: Mean and standard deviation of social support score of women with HIV/AIDS based on marital status, area of residence, and education level

Variable		Mean ± SD	Maximum	Minimum	P-Value
Marital status	Single	40.13±6.77	46	31	0.029*
	Married	38.04±6.86	46	23	
	Widowed	36.55±6.75	46	24	
	Divorced	34.33±5.82	45	23	
Area of residence	Urban area	39.20±6.39	46	23	0.012**
	Rural area	35.03±7.00	46	23	
Education level	Illiterate	38.57±5.74	46	23	0.003*
	Primary school	33.94±8.35	46	23	
	Middle school	37.25±6.45	46	23	
	High school	39.73±6.39	46	23	
	Diploma	38.20±6.63	46	23	
	Associate degree	44.00±1.64	46	43	
	Bachelor's degree	46.00±0.00	46	46	

* ANOVA test
** Independent two-sample *t*-test

The participants' total mean QOL, violence, and social support scores were, respectively, 76.64 ± 16.37, 64.50 ± 19.22, and 37.85 ± 6.85. In addition, the results of the correlation coefficient among QOL, violence, and social support showed a negative correlation between QOL and violence and between social support and violence, but a positive correlation between QOL and social support (Table 4).

Table 4: Correlation coefficient of quality of life, violence, and social support scores in women with HIV/AIDS

	Quality of life	Violence	Social support
Quality of life	1	-0.766 0.001	0.556 0.001
Violence	-0.766 0.001	1	-0.419 0.001
Social support	0.556 0.001	-0.419 0.001	1

Discussion

In the present study, the mean QOL, violence, and social support scores of women with HIV/AIDS were evaluated. The results showed that women with AIDS did not have a high QOL. This finding was in agreement with the findings of Grierson et al.; they found that mean QOL score of individuals with AIDS was not at a high level and was lower than that of healthy individuals (26).

In the present study, mean QOL score of single and married individuals was higher than widowed or divorced individuals. This may be due to the fact that single individuals have greater freedom, and thus, experience less pressure, which increases their QOL. Moreover, married individuals, compared to divorcees, have better accepted their illness. These findings were in accordance with that of the study by Haseli et al.; they found that the QOL of women with AIDS was correlated with their marital status (21).

The QOL of individuals living in urban areas was higher than those living in rural areas. This finding may be due to the lower awareness of individuals in rural areas regarding AIDS and its social stigmatization. These findings were in agreement with those of a study on women with AIDS living in rural areas in the USA (27).

The results of the current study showed that individuals with higher education level and better economic status had higher QOL. This was in accordance with the results of a study performed in Burkina Faso, which showed that illiterate individuals had lower QOL, and with increase in education level, QOL also increased (20). The higher QOL in patients with higher education levels can be attributed to their better occupational and economic means, higher cultural level, and better adaptation with and attitude toward the illness.

The evaluation of the total mean violence score in these individuals showed a high mean rate of violence toward these individuals. The mean violence score of divorcees was higher than single individuals. This may be because individuals who have divorced their spouse due to their illness have experienced more violence from their family members; however, single individuals have experienced less violence due to their independence.

The mean violence score of individuals living in urban areas was lower than that of individuals living in rural areas. Considering the results obtained regarding QOL and social support in individuals living in urban and rural areas, this result is comprehensible.

The rate of violence against those with higher education levels was lower; which may be due their success in the acceptance of the illness. Moreover, individuals with better economic status had the lowest violence score. These findings were in agreement with that of a study conducted in the USA on violence against women with AIDS (28). They found a

relationship between violence score and education level; with increase in education level, violence decreased among these patients (28).

The results of the present study showed that individuals with AIDS do not receive satisfactory social support. Nevertheless, the mean social support score of single and married individuals was higher than divorcees. This may be because most of these individuals have divorced their spouse due to their illness and this has affected their socials support. Individuals living in rural areas had lower socials support. This finding was in agreement with the results obtained regarding QOL of individuals living in urban and rural areas. It was also found that individuals with lower education levels had the lowest social support.

Total mean QOL, violence, and social support scores were correlated. Groups with higher QOL had lower mean violence score and higher mean social support score. For example, individuals with university degrees had higher QOL score, received greater social support, and experienced less violence. In addition, the QOL of individuals living in urban areas was higher and violence was lower among them compared to those living in rural areas. Correlation coefficient among these three variables showed a positive correlation between QOL and social support; with increase in the support of patients, their QOL also increased. A negative correlation was observed between QOL and violence; increase in violence resulted in a decrease in their QOL. There was also a negative correlation between social support and violence; increase in social support decreased violence against these patients. In similar studies, researchers found that social support and violence had a direct relationship with the QOL of patients with AIDS (29-32).

Conclusion

QOL, social support, and domestic violence are affected by factors such as marital status, area of residence, education level, and economic status. Divorcees and individuals with low education level and unsatisfactory economic status had low QOL and social support scores and experienced more violence compared to other groups. Moreover, individuals living in rural areas had low QOL experience high levels of violence. These findings suggest that individuals with low education level and economic status and those living in rural areas do not have the necessary knowledge about this disease. Therefore, authorities can increase the knowledge of these groups through providing the required education and use of social workers. These measures will decrease violence and increase social support in these individuals, and thus, increase their QOL. Considering the results of this study and similar studies and the lack of studies in this regard, it is recommended that more extensive studies be conducted in this field in different cities. It is hoped that, through the evaluation of factors affective on QOL of women with AIDS, better social support can be provided for these women.

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