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Frequency of Suicide Ideation and Attempt in HIV Infected Patients Referred to Behavioral Health Counseling Centers of Rafsanjan (RUMS) and Kerman University of Medical Sciences (KUMS)

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Abstract

Background: Suicidal behavior and HIV/AIDS are considered as significant public health concerns. HIV infection has been associated with elevated risk of suicidal ideation. **Methods and Materials:** Cross-sectional descriptive research design was used to record socio-demographic data of this study. Suicidal ideation scale BECK was used to determine and measure the frequency of suicide ideation and attempt in HIV infected (HIV⁺) persons referred to behavioral health counseling center of Rafsanjan University of Medical Sciences (RUMS) and Kerman University of Medical Sciences (KUMS) in 2012. **Results:** Men had more suicidal ideation than women after the diagnosis of infection with HIV. More cases of HIV positive persons with duration of less than 10 and more than 14 years, and most cases of less than 40 years-old had suicidal ideation. There was no significant difference between suicidal ideation in HIV-infected individuals and factors such as gender, age, and duration of HIV-infection ($P > 0.05$). **Conclusion:** Suicidal ideation and attempt is common in HIV infected patients which needs more assessment and prevention. [GMJ. 2015;4(1):33-38]

Key Words: Suicidal ideation; Suicide attempt; HIV; Health centers; Frequency



Introduction

Geographic variations in certain countries and regions, suicidal behavior and HIV/AIDS continue to be the major worldwide health care priorities [1]. According to Tehran University of Medical Sciences and Health Services reports in Iran, 25,041 people infected with HIV/AIDS were identified in 2012 from which 90.6% of them were male and 9.4% female [2]. In HIV-seropositive individuals, social withdrawal, lack of social support, adjustment and psychiatric disorders [3], drug/alcohol abuse, history of depression, childhood trauma, neuroticism and receiving antidepressant medication are considered as risk factors for suicide attempt [4]. HIV can be transmitted through insecure sexual intercourse (anal or vaginal), transfusion of contaminated blood, sharing of contaminated needles, pregnancy (from mother to her infant), childbirth, and breast feeding [5]. In patients with no previous psychiatric history, physicians have been advised to assess the suicide risk in regular office visit [6]. A study in Amsterdam showed that HIV-positive patients presented more symptoms like guilt, fear, anger and also they expressed considerably more suicidal ideation, thus, general practitioners and internists should be educated to distinguish mental health diseases in patients with HIV [7]. Another research in Denmark indicated that Suicide risk is increased in patients with AIDS/HIV [8]. In general population, average annual rate of suicide attempt ranged from 2.6 to 1100 per 100,000 person-years in the recent decades in countries of the Eastern Mediterranean region [9]. AIDS patients are shown to have less current suicidal ideation than patients with AIDS-related complex and asymptomatic HIV⁺. Lower suicidality in patients was independent from age and gender [9]. However, another research showed that gender and age were considerably related to suicidal ideation so that younger age group were more prone to suicide, and also young males had a 1.8 times higher risk for suicidal ideation in comparison to females [10]. The discrepancy for results remains to be clarified. Suicide attempt and HIV/AIDS account for important public health concerns [11]. HIV has been associated with elevated risk of sui-

cidal attempt [12]. AIDS diagnosis, psychiatric symptoms, and physical or sexual abuse are important positive predictors of both suicide ideation or attempt [13] and hence major depressive disorder, suicidal ideation and attempt, suicidal are common among HIV-infected persons [12,14-17]. Nevertheless, data is insufficient regarding the frequency of suicidality in Iran. Thus, the aim of this study was to determine the frequency of suicide ideation and attempt among HIV patients who referred to behavioral health counseling centers of Rafsanjan University of Medical Sciences (RUMS) and Kerman University of Medical Sciences (KUMS) in 2012.

Material and Methods

Study Population

This was a cross-sectional and descriptive research design which recorded a socio-demographic data. Beck's Suicidal ideation scale was used to determine the frequency of suicidal ideation and attempt among HIV infected (HIV⁺) persons who referred to behavioral health counseling centers of Rafsanjan (RUMS) and Kerman universities of medical sciences (KUMS) in 2012.

Participants

Participants of this study included RUMS (N=45) and KUMS (N=65) from which 82 HIV-positive persons were enrolled with personal satisfaction, and others did not consent to participate in the study (None of the patients had AIDS).

Data Collection

HIV-positive persons were interviewed by a psychiatrist in a private setting with a written letter of consent. Suicidal ideation was measured using Beck's scale that was used for the detection and measurement of the degree of attitudes, behaviors, and plan to commit suicide. The Questionnaire consisted of 19 questions which were about death wish, desire to attempt suicide, duration and frequency of suicidal ideation, feelings of self-control, and barriers to suicide or suicide attempt. It was scaled based on 3 point degrees 0, 1 and 2. The total score of each person ranged from 0 to 38. The first five questions had screening role. If individuals' response was indicative

of desire to suicide attempt, in that case they completed the next 14 questions. Participants were required to complete the questionnaire in 10 minutes.

Regarding the content of questions, suicide risk was determined as follows:

0-5: Suicidal ideation (Low Risk)

6-19: Preparation for suicide (High Risk)

20-38: Suicide attempt (Very High Risk)

Data Analysis

After interviews and completion of missing information by a psychiatrist, data were analyzed by SPSS version 16. Descriptive statistics was surveyed to identify respondent's demographic characteristics. Categorical variables were measured as percentages while continuous variables were expressed as means. Chi-square test was used to assess the relationship among study variables. $P < 0.05$ was considered as significance level.

Results

The mean age of participants was 39.95 and the majority of them were men (84.1%) who lived in Kerman city. Reviewing the suffering period showed that the majority of cases (76.8%) had suffered less than 10 years (Table

1). 25 (30.5%) and 40 (48.8%) of the cases had suicidal ideation before and after being infected with HIV, respectively. Eighteen (22%) and 28 (34.1%) of the cases had suicide attempt before and after being infected with HIV, respectively (Table 2).

Results showed that men had more suicide ideation than women after infection. Thirty five (50.7%) men and 5 (38.5%) women had suicide ideation (Totally 40 cases). Moreover, most cases with HIV positivity ≤ 10 and > 14 years had suicide ideation. Regarding the age of patients, most cases ≤ 40 years old had suicide ideation. As Table 3 represents, there was no significant difference between suicide ideation and factors such as gender, age, and duration of HIV infection at $p > 0.05$.

Results showed that 26 (37.7%) men and 2 (15.4%) women had suicidal attempts after HIV infection (Totally 28 cases). Most of the cases (37.5%) among whom duration of HIV infection was 11-14 years, had suicide attempt and most of the cases (41.3%) aged ≤ 40 years old had suicide ideation. As shown in Table 4, there was no significant difference between suicide ideation in HIV-infected individuals and factors such as gender, age and duration of HIV-infection at $P > 0.05$.

Table 1. Distribution of demographic variables

Variable		Frequency	Percentage
Age	Up to 40	46	56.1
	More than 40years	36	43.9
Gender	Male	69	84.1
	Female	13	15.9
Duration of HIV positive	Up to 10 years	63	76.8
	11-14	8	9.8
	More than 14years	11	13.4

Table 2. Distribution of Sample Suicidal Ideation and Attempt, pre and post HIV Infection (F: Frequency)

Variable			Pre HIV infection	Post HIV infection
Suicide ideation	Yes	F	25	40
		%	30.5	48.8
Suicide ideation	No	F	57	42
		%	69.5	51.2
Suicide attempt	Yes	F	18	28
		%	22	34.1
Suicide attempt	No	F	64	54
		%	78	65.9

Table 3. Comparison of Suicidal Ideation after HIV Infection by Gender, Duration of HIV Positive and Age (F: Frequency)

Variable	Gender			Duration of HIV infection				Age				
	Male	Female	Total	≤10y	11-14	>14y	Total	≤40y	>40y	Total		
Suicidal ideation After HIV infection	Yes	F	35	5	40	30	4	6	40	26	14	40
		% in group	50.7	38.5	48.8	47.6	6.3	54.5	48.8	56.5	38.9	48.8
	No	N	34	8	42	33	4	5	42	20	22	42
		% in group	49.3	61.5	51.2	52.4	50	45.5	51.2	43.5	61.1	51.2
	Total	N	69	13	82	63	8	11	82	46	36	82
		% in group	100	100	100	100	100	100	100	100	100	100
X ² = 0.658 df=1 P=0.417				X ² = 0.185 df=2 P=0.912				X ² = 2.513 df=2 P=0.113				

Table 4. Comparison Between Mean of Suicidal Attempt After HIV Infection by Gender, Duration of HIV Positive and Age (F: Frequency)

Variable	Gender			Duration of HIV infection				Age				
	Male	Female	Total	≤10y	11-14	>14y	Total	≤40y	>40y	Total		
Suicidal ideation After HIV infection	Yes	F	26	2	28	21	3	4	28	19	9	28
		% in group	37.7	15.4	34.1	33.3	37.5	36.4	34.1	41.3	25	31.1
	No	N	43	11	54	42	5	7	54	27	27	54
		% in group	62.3	84.6	65.9	66.7	62.5	63.6	65.9	58.7	75	65.9
	Total	N	69	13	82	63	8	11	82	46	36	82
		% in group	100	100	100	100	100	100	100	100	100	100
X ² = 2.418 df=1 P=0.120				X ² = 0.083 df=2 P=0.960				X ² = 2.387 df=1 P=0.122				

Discussion

The total sample size was 82 HIV patients, majority of them men. In both centers (RUMS & KUMS), 30.5% and 48.8 % of cases had suicide ideation before and after HIV infection respectively. Twenty percent of the cases in Rafsanjan and 34.1 % of them in Kerman had suicide attempt before and after HIV infection, respectively.

Men's suicide ideation was higher than women following HIV infection. Suicide ideation following HIV infection was generally higher than those of pre-HIV infection (from 30.5% to 48.8%). It was the same for suicide attempt (from 22% to 34.1%). There was no significant difference between suicidal ideation in

HIV infected patients and factors such as gender, age and duration of HIV infection. In addition, no significant difference was observed between suicide attempt and previously mentioned factors. AIDS diagnosis, psychiatric symptoms, and physical or sexual abuse were significant positive predictors of both suicidal ideation and attempts [13].

In a study, Jia showed that 38.6% of suicidal and 29.0% of control patients developed psychiatric disorders following the diagnosis of AIDS/HIV infection. Reports suggested that AIDS/HIV infection constitutes a significant risk factor for subsequent suicide. Therefore, clinical capacities should be improved to address psychosocial and existential needs in the treatment of patients with AIDS/HIV infection [18].

Kinyanda reported that prevalence of moderate to high risk for suicidality (MHS) was 7.8% and lifetime prevalence of suicide attempt was 3.9% [19]. He also showed that female gender, food insecurity, increasing negative life events, high stress score, poor coping styles, past psychiatric history, psychosocial impairments, diagnosis of post-traumatic stress disorder (PTSD), generalized anxiety disorder (GAD) and major depressive disorder (MDD) were associated with MHS. He suggested that results identify potential targets to mitigate risk through treatment of psychiatric disorders and promote greater adaptation to living with HIV/AIDS [19].

In a study which was performed by Shelton in 2006, 59% of individuals reported suicide thoughts and 50% of those reported attempting suicide at some point in life-long [16].

Préau *et al.* (2008) showed that 23% of HIV/AIDS patients had suicide attempts and related factors included sex, age, economic failures and the social and family supports influenced suicide attempt outbreak. This shows the general result of the survey as having a high suicide attempt breakout among HIV/AIDS patients [20].

Cooperman *et al.* (2005) showed that 26% of women reported suicide attempt once HIV was diagnosed. Forty two percents of them made an attempt in the first month following diagnosis and 27% of women acted within the first week. Therefore, suicide prevention strategies should be considered for HIV-positive women without delay following diagnosis [13].

It has been shown that 9 to 22% of HIV/AIDS patients have been considered as high risk for suicide commitment, particularly men. This study suggested that social isolation

can be an important risk factor. Therefore, social psychological supports should be considered as key part of treatment plans [21]. Current results are in agreement with Keiser showing that HIV/AIDS patients had a higher suicide attempt risk [22].

Schlebusch in his study reported that HIV/AIDS patients had more risk for completed suicide [23]. As the results of our study indicated, suicide is common in HIV population. We conclude that HIV seropositive, male gender and age may be as important risk factors for suicide in patients with HIV.

Conclusion

Suicide ideation and attempt are prevalent in HIV patients. We suggest planning counseling sessions for patients with HIV to prevent suicide ideation and attempt in these groups of patients.

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Conflict of Interest

There is no conflict of interest in this research.

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