The Relationship between Life Expectancy and Resilience with Death Anxiety in HIV Patients

Mohammadreza Zarbakhsh Bahri, Seyedeh Akram Pourhassani[*], Mohammadali Rahmani, Fatemeh Zalekan, Elmira Kianipour

Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

ABSTRACT

This study aimed to investigate the relationship between life expectancy and resilience with death anxiety in HIV patients. The research method is in correlation form and the statistical community includes all HIV patients referring to Imam Khomeini Hospital in Tehran ; 100 HIV patients had referred to this center during October, 2011 to march, 2012 and have been chosen as the samples through purposeful sampling; and responded to life expectancy (0.94 certainty) and resilience (onnor-Davidson2003, 0.87 certainty) and death anxiety (natural death studies center of USA, 0.89 certainty) questionnaires. The data have been analyzed by Pierson correlation coefficient and multi variable regression through SPSS software. The results indicate that there is a meaningful negative relationship between life expectancy and death anxiety in HIV patients (P<0.05). Life expectancy variable predicts anxiety in HIV patients, significantly, and determines 13 percents of variance related to death anxiety. But there is no meaningful relationship between resilience and death anxiety in HIV patients (P>0.05).
KEYWORDS: death anxiety, resilience, life expectancy, HIV.

1. INTRODUCTION

The first AIDS sample has been reported in 1981. But analyzing the samples of patients dead before 1981 has indicated that HIV infections have been seen from 1951; this states that in 1960s and 1970s, HIV ad disorders related to HIV have been distributed in Africa and north America but they have not been recognized. According to CDC reports, since 1981 to 2005, 950000 Americans have been infected to AIDS syndrome. In 2004, 43000 new infections have been recognized and 15000 ones have been dead. CDC estimates that there are 460000 ADIS patients in USA.

WHO estimates that there are 215 million adults and 1 million children with AIDS and 30 million ones with HIV (1). In Iran, quoted by ministry of health and medical education, 1357 HIV patients have been reported to may, 2006, among which 94.5% were men ; most patients belonged to 25-34 year old age and the most ways of transforming (64%) were using infected syringes by addicted people (2).

HIV is a retrovirus related to Leukemia viruses of T cell in human (HTLV) and infecting animal retroviruses. There are at least two HIV types: HIV_1 and HIV_2 . HIV_1 causes most diseases related to HIV.

But it seems that HIV2 is the factor of increasing infection in Africa. there may be other types of HIV that are called HIV-O (1).HIV disease process contains dysfunctions of immune system, signs and symptoms and infections and malignancies, based on clinical backgrounds, physical examination and laboratorial evidences. It can be said that HIV includes some stages. In providing standard definition for AIDS , CDC states that HIV and AIDS infection in adults and adolescents has been classified based on clinical conditions of infection and counting CD4+T (3). Transferring ways of this disease include sexual contacting , blood and blood products from mother to baby; and using infected syringe by addicted people is among the popular ways in Iran (4 , 5).this virus is destroyed out of living cell and in encountering antiviral elements and high temperature in less than 20 minutes (6).

General psychodynamic issues in HIV patients include self- blaming, low self-esteem and the ones related to death. Patients concerns are related to functional matters like occupation, medical benefits, life insurance, love relations, family connection and friendship. Among phobias faced by the patient, is that, he can't make decision whom should be informed. In decision making about telling the fact or nor, being unfaith should be considered. This is true for patient's occupational environment, as work injuring can threat the coworkers, the patient should inform them. So that, parents should decide in informing their children about the disease. The questions about supporting children after their parents' death should be considered. This question will be explained when informing the child about his/her positive test (1).

Depression is among the most popular side effects of HIV/AIDS and most incident psychotherapy disorders in these patients. Out breaking depression disorder in HIV patients has been 47.3 percent that had been reported five times more than common people. Depressed HIV positive patients may experience more painfully than HIV , even without any symptoms (7).

[*]**Corresponding Author:** Seyedeh Akram Pourhassani, Department of Psychology, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran. E-mail: psychologygroup89@yahoo.com.

The results of long time investigations on HIV people have indicated meaningful relationships between general health, physical function, occupational function and psychotherapy symptoms of depression and anxiety (8).

Death anxiety (thanatophobia) is defined as a feeling of dread, apprehension or solicitude (anxiety) when one thinks of the process of dying, or ceasing to be or what happens after death. Death is defined as the state of non-being, the termination of biological life' (9). there is a meaningful relationship between patient's age and social support and intrinsic religiosity with death anxiety resulted from HIV diagnosis and its symptoms effects on patient (DA) ; when the mentioned factor is in higher level, less death anxiety will be experienced . Death anxiety lead by HIV and DA can promote extrinsic religiosity (10).

Death anxiety refers to provoke anxiety and body arousal and being afraid of death. But negative looking to anxiety and body arousal and being afraid of death results from the stress related to HIV (11).

A research has been conducted to investigate the relationship between irrational believes and death anxiety as a function of HIV in homosexual and bisexual men, on 101 seropositive samples. 34 men were without symptoms, 30 ones with symptoms, 37 men with HIV and 40 ones were in control group as the healthy samples. In primary analyzing, there were no differences in irrational thoughts and death anxiety in patients and healthy ones.

In further investigations, irrational thoughts and death anxiety have been increased though severing the disease.

And final analyzing indicated that irrational thoughts were more tan death anxiety variance in patients, so they discuss the necessity of cognitive – behavioral therapy in HIV patients (12). Rational and realistic experiences related to death, social support, internal religion and rational believes decrease the variable, life expectancy, or death anxiety severity in HIV patients .

Life expectancy is the highest expect in being alive, and is different in every culture and its increase depends on health, food and sport customs. WHO states that life expectancy is a statistical index that indicates average life time in a society. That is the community members expect how many years to be alive. When health and treatment indexes are improved, life expectancy will be increased. Life expectancy is an index in measuring development and lagging of countries. Life expectancy have increased from 56 to 72 years . Iran is on seventh step in life expectancy. Life expectancy is an index of developing and community helath . life expectancy is 72.6 for women and 69.4 fr men and totally 71 years; that is 5.5% more than global average (13)

HIV infection is a lifetime disease. There is no known treatment for this infection, but HIV has been have been changed from a fatal to a chronic disease through scientific developments.

Through continuous taking antiretroviral drugs and diagnosing the disease on time and following a healthy life style, the patients can prolong their life. Life expectancy has been increased in HIV adult patients who take retroviral drugs as a treating technique during 1996 to 2008.

The patient, who is 20 years old during 1996 to 1999, can be assumed to be alive 30 years more. And will be at least 50 years old. The patients who is 20 years old during 2006 to 2008, can be assumed that will be alive 45.8 years more. And will be at least 65.8 years old. The most difference in life expectancy in the patents depends on CD4 counts in each micro liter. According to the positive function of retroviral drugs, life expectancy has been less than common people, still. Life expectancy in a 20 year old man, taken drug, is 39.5 (59.5 years old) while life expectancy in a 20 year old man is 57.8 (77.8 years old) in common people (14).

Almost, there are 432 CD_4 cell in each micro litter blood, while diagnosing HIV on time. And it is predicted that life expectancy will be 75years. That is, 7 years of life have been lose for the virus and general death dangers will be 2.3 and 5.2 percent , 5 to 10 years after infecting. When diagnosing is conducted late, 140 CD_4 will be seen in each micro litter blood and life expectancy would be 71.5 years ; in that way, 10.5 years have been lose for the virus. Life expectancy will be increased in patients when they are provided with antiretroviral and diagnosing is done in early stages. Suppose that a 30 year old man has been infected because of drug using in west Europe in 2010 , his life expectancy is 75 years , while life expectancy is west Europe in 2010 was 82 years; so that 7 years have been lose for the HIV infection . This death is the same as other chronic diseases like diabetes (15).

Garmzy and Masten (1991), quoted by Alizadeh (2009), defines resilience as the process of capability or adjustment message successfully in challenging and extended situations; which not only includes invulnerability in emergency conditions but also contains higher capabilities in covering horrible events (16).

Morphei and marlich (2008) studied resiliency among 111 six to eleven years old children living with patient mothers. Their results indicate that patient mother is a danger for child resilience. She decreases child resilience and flexibility; while children with higher resilience face less depression and show more self-efficiency. But more children with patient mothers are among non-resilient children (17).

A study has been conducted to investigate the relationship between resilience and life expectancy with suicide on 40 prisoners with AIDS in Khoozestan prisons. The results indicate that there is a meaningful relationship between suicide with resilience and life expectancy in HIV patients; and other results states that resilience and life expectancy variables determine 67% of main variable, suicide (18)

Due to above mentioned, this study aims to determine the relationship between life expectancy and resilience with death anxiety in HIV patients, so the research question is:

Is there any relationship between life expectancy and resilience with death anxiety in HIV patients?

RESEARCH METHOD

This study has been in correlation form. The research community includes all HIV patients referring to Imam Khomeini Hospital during October, 2011 to march, 2012; among which 100 ones have been chosen as research samples and responded to the questionnaire due to research purpose and satisfying with cooperation.

Data gathering tools:
A: death anxiety scale

death anxiety scale has been provided by natural death studies center of USA (2000) and includes 34 statements which investigate death anxiety symptoms and provides the responds in a continuum from absolutely wrong to absolutely correct through 1 to 4 scoring ; the score expanse of scoring from the least 34 to the highest 136 . This scale has been normalized in Iran by Morgan (2008) and its validity has been provided through using Cronbach Alpha. Alpha coefficient has been 0.89 for all samples.

B: Conner and Davidson resilience scale:

A questionnaire has been provided through research sources in 1979-1999 by Conner and Davidson. This questionnaire includes 25 options which are scored in Likert scale among zero (absolutely wrong) to five (absolutely correct). When the testee's score closes to 25, s/he experiences higher resilience and when the score closes to zero, the resilience is less.

Mohammedi (2005) reported the reliability and validity this scale as follows: for determining the validity , each option correlation with total score has been counted and then factorial analysis has been used. Measuring each option correlation indicated that the coefficients were between 0.14 to 0.64 except option 3. Then, the main scales have been analyzed in factorial . the results confirmed suitable validity of the questionnaire.

Foe measuring reliability, Chronbach Alpha has been used. And the validity coefficient has been 0.89.

In a study by Samani , Jokar and Sahra Gard (2007) , the reliability of this scale had been provided 0.87 through using Chronbach Alpha, and factorial analysis of this scale indicated a general factor in this scale.

KMO coefficient for this analysis has been 0.87 and Kroit Batlet test was 6.64. This factor indicated 26.6% of total scale.

C: Life expectancy scale

Life expectancy scale includes 33 articles and had been provided by Halajian (2008). The testee responses to it based of Likerts scales (absolutely, almost, concentration). The highest score is 99 and the higher score indicated more life expectancy. Chronbach Alpha had been used to valuating the parallelism. Based on the Chronbach alpha results, the alpha coefficients for total sample, girls and boys are 89%, 94% and 92% , respectively.

The test validity has been measured by rte-testing after 4to 6 weeks , on 95 girls and 91 boys, who participated in first step. The correlation coefficients in testing and re- testing among girl and boy testees , have been r=0.79 and r=0.80, respectively (19).

Findings:

Pierson correlation coefficient and multiple regression analysis in step wise have been used for predicting death anxiety in analyzing data related to investigating the relationship between resilience and life expectancy and death anxiety.

Descriptive results of variables (mean and standard deviation) are given in table 1:

Table 1: descriptive statistics indexes for samples

Variable	Mean	Standard deviation
Death anxiety	62.55	27.830
Life expectancy	73.99	12.456
Resilience	62.13	17.755

As observed in the table, the mean of death anxiety is 62.55 and its standard deviation is 27.830. Among predicting variable, the highest mean belongs to life expectancy, 73.99 and standard deviation 12.456; and the lowest mean belongs to resilience, 62.13, with standard deviation, 17.755.

Correlation coefficients in various variables are given in table 2.

Table 2- correlation coefficients matrix of death anxiety and predicting variables

variable	Life expectancy	resilience
death anxiety	-0.331[**]	-0.115
predicting variables		
Life expectancy	-	0.663[**]
resilience	-	-
	P[*]<0.05	P[**]<0.01

As above data indicate, there is a meaningful negative relationship between death anxiety and life expectancy (P=0.000, r=r=0.331). But there is no meaningful relationship between death anxiety and resilience (P=0.127, r=-0.115).

For determining the best predicting factor of death anxiety among regression predicting variables through step wise method. Its results are given in table 3.

Table 3- summery of step wise regression analysis of life expectancy and resilience and death anxiety

step	Predicting variable	R	R^2	Balanced R	Standard error
1	life expectancy	0.359	0.129	0.111	26.242

Above table summarizes regression analysis. According to the data in step 1, life expectancy score has been a model and the variables justify the variance 13percent (R^2=0.129).

Table 4- results of regression variance analysis

model	Changes sources	Total squares	Freedom degree	Squares mean	F	P
	Regression	8975.991	2	4937.995	7.170	0.001
1	Error	66800.759	97	688.668		
	total	76676.750	99			

The above table data indicate variance results. As mentioned, F is meaningful in 0.01 (F(2,97)=7.170 , P=0.001). Therefore it is concluded that a meaningful model has been resulted from step wise technique and undependable variables of life expectancy can predict main variable.

The results for determining regression analysis coefficients and meaningful predicting power for independent variable and regulating regression equation have been given in table 5.

Table 5- step wise regression analysis coefficients

model	variable	Non-standardized coefficient		standardized coefficient		
		Slope coefficient (B)	Standard error	Beta	T	P
fixed number Of life expectancy	119.511	15.959			7.488	0.000
0.001	-1.014	0.283		-0.454	-3.586	

According to above tables and F meaningfulness in variance analysis table (4) and T in above tables, it can be concluded that life expectancy variable predicts death anxiety in HIV patients, significantly and regression equation for above model is as follows.

Death anxiety = 119.511 + (-1.04) (life expectancy)

Due to the slope, while increasing life expectancy, less death anxiety will be predicted.

Also, based on the results of table 4, it is clear that t in life expectancy is -3.586 and meaningful in 0.01. That is, there is a contrary relationship between life expectancy and death anxiety. Based on standardized B in life expectancy (-0.454) , it can be said that one change in life expectancy decreases death anxiety to 0.454.

DISCUSSION

In this study 100 HIV patients have been chosen trough purposeful sampling from HIV center of Imam Khomeini Hospital. The research statistical analysis indicate that there is a meaningful negative relationship between life expectancy and death anxiety; and there is no meaningful relationship between resilience and death anxiety ; that is, if life expectancy increases in HIV patient , they will experience less death anxiety.

The research results state that the people with more life expectancy will face the disease challenges better. And finally, death anxiety will be less, so the findings are the same as research findings conducted by Miller (2012), Brance (2004), Will (2012) and Nacagava et al (2012).

As a matter of fact, the mental characteristics of people with death anxiety includes, depression, anxiety, irrational thoughts, sin feeling; each factors can decrees life expectancy and resilience in HIV patients. Lower life expectancy in the patients indicates wrong taking drugs, using time, and wrong life style (11).lower resilience in HIV patients states lower resiliency, not using the procedures in facing life challenges, social inconsistency, being unable in problem solving, and not having social efficiency, with no experiencing sympathy (8).

Life expectancy induces some features like correct heath habits, correct food use, continuous exercise(13), taking retroviral drugs on time, diagnosing early (14), rational believes, intrinsic religiosity , social support (10), developing treatment and health in society and economic factor and then choosing a healthy life style (13). Common people of HIV patients who are able in making the features can experience less death anxiety.

Saruni et al, (2011) conducted the same research. They indicated that multiple resilience and life expectancy can identify 67% of suicide in prisons.

Alaee, Mansouri, Shoshani, (2011) investigating HIV+ addicted people and health servicers through using GHO-28 questionnaire. The findings, obtained from 39 addicted HIV+ samples, addicted HIV- samples and 38helath servicers indicated that general health disorders in addicted people were anxiety and then depression. But this disorder is not related to HIV on brain. Therefore the researchers stated that HIV can't be resulted from moral disorders. But this infection increase mental disorders, so the results of two researches are the same.

Katibaee et al, indicated that life quality and mental health are lower in addicted HIV patients than non-addicted patients, and they are lower in non- addicted HIV patients than healthy people; and challenges are seen more in HIV addicted HIV patients than non- addicted HIV patients, and also it amount is higher in non-addicted HIV patients than healthy people. The results are the same.

Investigating the relationship between life expectancy and resilience with death anxiety in HIV patients clarified that lower death anxiety can be predicted in HIV patients though higher life expectancy and there is no relationship between resilience and death anxiety. The findings are guiding for further studies and using them in related fields.

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