Analysis of the Relationship between Self-efficacy and Quality of Life in HIV Positive Patients in Shiraz

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ABSTRACT
This study was conducted to investigate quality of life and self-efficacy and the relationship between these two variables in patients with HIV positive due to the increasing HIV positive people in the country as well as the impact of the disease on quality of life and self-efficacy. Population of the study included 165 participants (125 male and 40 female) of the people with HIV positive in Shiraz who was selected on the basis of stratified random sampling. SF36 questionnaire was used to judge quality of life. Moreover, Shere and Adams' General Self-Efficacy questionnaires was employed to measure self-efficacy. Findings indicated that there was a significant positive relationship between self-efficacy and quality of life of patients with HIV positive at 0.05 level of significance. In addition, there was a significant positive relationship between self-efficacy with dimensions of physical limitations, public health, and social function and quality of life. Moreover, results showed that there was no significant relationship between males and females and also between patients with HIV positive and AIDS in terms of self-efficacy and quality of life. A significant relationship existed between addicts and non-addicts. Findings of the study may help identify the psychological aspects influencing quality of life of patients and differences based on different levels of the disease.

INTRODUCTION

Todays, health is known as one of the dimension of human rights and a social objective in the world. Concept of the health has developed by the experts and they use biological, psychological, and social approach in their studies, in which interaction of these factors is of particular importance. In addition to emphasize the authorities to ensure the physical, mental, and social health of the society, world health organization always emphasize the fact that none of these three dimensions is superior over the other. For many people who are involved in different diseases in their lifetime, adaptation and coping with the disease depends on three important factors: medical factors, such as clinical symptoms of disease, psychological effects, and social factors, each of them are effective on patient’s adaptation with their disease [14]. Today, unlike many common and fatal diseases in the world, AIDS has produced extensive mutual effects on the society and affected patients and perhaps the difference in the views of the society to HIV positive patients has made the possibility of the patients’ compatibility with each of these three medical, psychological, and social, factors more limited.

On the other hand, according to the increasing trend of HIV positive in Iran, risks, such as reduced life expectancy, increased mortality of children, young people and women, increases number of orphans, high cost of treatment and other economic problems, spread of promiscuity, increased levels of addiction, intravenous drug, as well as complications of injection threatens our society [15]. AIDS and infection with human immune deficiency virus (HIV) exert psychological and social pressures on the lives of patients, their families, spouses, health care professionals and experts of such people. Such psychological and social pressures manifest as reactions, such as infertility, thoughts, anger, nervousness, anxiety, apprehension, fear, depression, suicidal thoughts, physical weakness, social isolation and hypochondria, expectation behavior, hopelessness, low self-esteem and cognitive defects due to the involvement of central nervous system, all of which influence quality of life, standard of living and self-efficacy [8].

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It seems that we can say many things about HIV and its physical and biological outcomes; that is AIDS; however, it may seem difficult to understand many aspects of psychological dimensions. Awareness of quality of life of patients with HIV positive, issues and problems that these people are faced with, the impact of such problems on their quality of life, and also the impact of their quality on reduction and addition their problems can assist us in providing treatments and services, which influence their psychological conditions and quality of life. As shown by the studies, having a positive sense of self and also treatment approaches and the social support provided to the patients have a positive effect on their improvement [1]. Therefore, if we can reveal factors influencing such feeling, we have taken a big step on the way to help them. Today, it is believed that training through positive psychology, which includes happiness, effective social relationship, and a sense of self-efficacy has produced undeniable effects on the individual life that influence increase in qualitative level of individual lives. Self-efficacy is one of the personality traits and internal belief that is regarded as one of the important concepts influencing Bandura’s cognitive-social theory. Self-efficacy affects people’s thinking, how to face with problems, emotional health in decision making, coping with psychological stress and depression and it is predicted that it can have a significant role in improvement of level of quality of life of such patients [4].

Hence, given to the growing trend of the disease in the country, and therefore increased problems of patients with this disease and also social problems, efforts to identify factors influencing improvement in quality of life of such patients is of high importance. Thus, this study analyzed the relationship between self-efficacy and quality of life in patients with HIV positive.

**Review of the related literature and hypotheses of the study:**

**Quality of life:**

Quality of life is a complex construct, which includes different scopes, such as health status, ability to perform daily activities of living, status of work roles, opportunities to pursue leisure interests, social functioning in friendships and relationships with others, access to the sources of health care, living standards, and public health [9]. Testa views quality of life and quality of life related to the health as related to other domains of physical, psychological, and social health that is influenced by the individual experiences, beliefs, expectations, and perceptions [22].

World health organization 1998 has defined quality of life as an individual understanding of their situation in life and in relation to cultural context and environmental value systems of their life and objectives, criteria, and interests. This quality is influenced by interaction of factors, such as individual health, mental condition, religion, and environmental relationships and elements.

The first actual studies on the concept of quality of life refer to Cambell, Converse, and Rodgers and Andrews and Withey. Cambell et al. viewed quality of life as satisfaction with the life in specific domains. They regarded scopes of work, housing, health, neighborhood, friendship, marriage, family life, level of education, and savings as components of quality of life.

In social sciences, quality of life focuses on the understanding of patients of the dimensions of disease, psychological responses, and social responses to the symptoms of disease. Domains of quality of life in this group include social and psychological welfare [19].

Therefore, quality of life of humans relates to the level of their health because the health is the necessary condition to play the social role and individuals can engage in complete activities if they feel to be healthy and also the society sees them as healthy. Thus, it seems that individuals with HIV positive have a lower level of quality of life.

**Self-efficacy:**

Beliefs on the self-efficacy were introduced into the psychological literature through Bandura’s article since 1977, which play a crucial role in quality of life and balance between different dimensions. In Bandura’s opinion, human’s perception has a significant effect on the self-efficacy and entails a wide range of information, such as 1) what activities do people?, 2) how much of their efforts do they spend on a certain situation, 3) how long do they tolerate the obstacles, and 4) how is the emotional reaction of an individual while predicting a success or doing it?

Bandura [3] states that self-efficacy is a belief that a person has to their abilities in performing certain tasks. Self-image elements of each person are a set of beliefs and expectations, which that person has about their abilities in relation to effective performance in order to meet the necessary needs. He called this component as self-efficacy. Bandura believes that specific individual expectations about their abilities to perform specific operations influence individual effort and persistence in performing it and provide them with appropriate motivation.

Bandura [2] states that individuals with high perceived self-efficacy make more efforts and have more success and show more persistence and lower fear than those who have lower self-efficacy.
Self-efficacy beliefs are regarded as strong determinants and predictors of the level of performance; therefore, based on these reasons, Bandura argued that self-efficacy plays a key role in the lives of individuals [3]. According to Bandura, personal self-efficacy beliefs are not the exact interpretation of the past works but they are a tool that makes our interaction with the environment and other people possible. Self-efficacy beliefs play a significant role in the growth of cognitive competencies and compatibility with the environment and change in them.

Relationship between self-efficacy and quality of life

One of dimensions, which may be effective to promote quality of life of patients, is their perceived level of self-efficacy. Esmaeili et al. [8] investigated quality of life and its relationship with self-efficacy in Hemodialysis patients and found that there was a significant relationship between quality of life and self-efficacy. Kohli and Kumar [12] examined quality of life of HIV in India and demonstrated that level of quality of life of these patients depends on the social function and physical health and found to be low.

Oleray’s study concluded that beliefs of self-efficacy influence both incidence of different diseases and the recovery process of patients. Beliefs of high self-efficacy relate to various behaviors, such as smoking, alcohol drinking, and ways of preventing AIDS [17]. In a study on the effect of self-efficacy on quality of life, Tsay [23] noted that self-efficacy had a positive effect on all dimensions of quality of life. In another research, Ware [25] investigated mental health, self-efficacy, and quality of life in hospitalized patients under long-term treatment and concluded that there is a significant positive relationship between self-efficacy and mental health and quality of life. Therefore, according to the review of literature, the first hypothesis of the study is put forward:

The first hypothesis: there is a significant relationship between self-efficacy and quality of life of patients with HIV positive.

Differences in self-efficacy and quality of life of patients with HIV positive according to the different levels of other variables:

In many studies, researchers investigate the differences in research variables according to the different levels of other variables in order to understand the variables. For instance, Sarkouski and Greenwood studied quality of life of males and females with hepatitis and concluded that there was no significant relationship between males and females in terms of quality of life [7]. In addition, Nojoumi [18] compared quality of life of the patients with AIDS and HIV positive. His results indicated that there was a significant positive relationship between all dimensions of quality of life in the healthy people and the patients with HIV positive and also there was a significant positive relationship between patients with HIV positive and AIDS in terms of quality of life.

Moreover, in a comparative study of the health people and addict and non-addict people with AIDS, Emami pour [7] compared the mental disorders and quality of life in four groups of addict males infected to AIDS, addict males with no AIDS, non-addict males with AIDS, and finally the healthy males. He concluded that addiction and AIDS had a negative effect on the mental health and quality of life of such people. According to the review of the related literature and the studied arguments, there are some hypotheses to compare quality of life of HIV patients based on different levels of other variables.

The second hypothesis: there was a significant positive relationship between self-efficacy of males and females with HIV positive.

The third hypothesis: there was a significant positive relationship between quality of life of males and females with HIV positive.

The fourth hypothesis: there is a significant relationship between self-efficacy of the addicts and non-addicts with HIV positive.

The fifth hypothesis: there is a significant relationship between quality of life of the addicts and non-addicts with HIV positive.

The sixth hypothesis: there is a significant relationship between self-efficacy of patients with HIV positive and AIDS.

The seventh hypothesis: there is a significant relationship between quality of life of patients with HIV positive and AIDS.

Methodology:

Population of the study were all HIV patients whose screening test result of HIV was positive and had files in the behavioral science researches center of Shiraz. Sample of the study were 165 participants (125 male and 40 female) of the patients with HIV positive in Shiraz who was selected on the basis of stratified random sampling. It included two groups of HIV positive and AIDS (the addict and non-addict). Sample difference between two groups of male and female was based on the differences in the number of females with HIV positive in the population of the study. Of the studied sample, 78 participants were HIV positive and 87 suffered from AIDS, and also 109 were addicted and 56 non-addicted. Shere and Adams’ General Self-Efficacy questionnaire was used to measure the self-efficacy, which was translated by Barati in Persian and its reliability
and validity has been examined. Cronbach’s alpha was used to determine the reliability of the questionnaire that was found to be acceptable (0.79). The questionnaire had 17 items that measured three levels of self-efficacy expectations, "the desire to initiate", "desire to try to complete the behavior", and "their resistance against obstacles" [21]. SF-36 questionnaire was used to measure quality of life. The questionnaire was developed by War and Gandec [25]. This questionnaire has two general dimensions of physical health and mental health. The physical health has four measures: 1. Physical functioning, 2. physical limitations, 3. physical pain, and 4. public health. Mental health has measures as follows: 1) liveliness, 2) social function, 3) emotional limitations, and 4) mental health. The reliability of instruments of the study was determined by Cronbach’s alpha that was found to be 0.88. Data analysis was performed by SPSS -15.

**Findings:**
This section deals with the results of the study according to the hypotheses.

The first hypothesis: there is a significant relationship between self-efficacy and quality of life.

Table 1 shows the results of the relationship between self-efficacy and quality of life and dimensions of quality of life.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation coefficient with self-efficacy</th>
<th>Pearson correlation test to determine the relationship between self-efficacy and quality of life and its dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of life</td>
<td>0.16</td>
<td>P&lt;.05</td>
</tr>
<tr>
<td>Physical dimension</td>
<td>0.21</td>
<td>P&lt;.01</td>
</tr>
<tr>
<td>Physical function</td>
<td>0.04</td>
<td>P&gt;.05</td>
</tr>
<tr>
<td>Physical limitations</td>
<td>0.28</td>
<td>P&gt;.01</td>
</tr>
<tr>
<td>Physical pain</td>
<td>0.05</td>
<td>P&gt;.05</td>
</tr>
<tr>
<td>Mental dimension</td>
<td>0.10</td>
<td>P&gt;.05</td>
</tr>
<tr>
<td>Liveliness</td>
<td>0.05</td>
<td>P&gt;.05</td>
</tr>
<tr>
<td>Social function</td>
<td>0.17</td>
<td>P&gt;.05</td>
</tr>
<tr>
<td>Emotional limitation</td>
<td>0.11</td>
<td>P&gt;.05</td>
</tr>
<tr>
<td>Mental health</td>
<td>0.11</td>
<td>P&gt;.05</td>
</tr>
</tbody>
</table>

As seen in Table 1, there is a significant positive relationship between the self-efficacy and quality of life at 95% level of confidence and thus the first hypothesis of the study is confirmed. Moreover, results of the relationship between the self-efficacy and dimensions of quality of life indicated that there was a significant relationship between self-efficacy and physical dimension of quality of life; however, there a significant relationship did not exist between self-efficacy and mental dimension of quality of life. Furthermore, results showed that there was a significant positive relationship between self-efficacy and the social function of the mental dimension in quality of life.

The second hypothesis: there was a significant positive relationship between quality of life of males and females with HIV positive.

The third hypothesis: there was a significant positive relationship between self-efficacy and quality of life.

T-test of two independent groups was used to examine the difference significance in the average self-efficacy and quality of life of the males and females with HIV positive (the second and third hypotheses of the study). Table 3 shows the related results. Table 2 presents the results.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation coefficient with self-efficacy</th>
<th>Pearson correlation test to determine the relationship between self-efficacy and quality of life and its dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of life</td>
<td>0.16</td>
<td>P&lt;.05</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.21</td>
<td>P&lt;.05</td>
</tr>
</tbody>
</table>

Results of the second and third hypotheses indicated that there was no significant relationship between the average self-efficacy and quality of life of the males and females with the HIV positive and thus the second and third hypotheses of the study are rejected.

The fourth hypothesis: there is a significant relationship between the average quality of life of the addicts and non-addicts with HIV positive.

The fifth hypothesis: there is a significant relationship between the average self-efficacy of the addicts and non-addicts with HIV positive.

T-test was used to examine the difference significance in the average self-efficacy and quality of life of the addicts and non-addicts with HIV positive (the fourth and fifth hypotheses of the study). Table 3 shows the related results.
Table 3: T-test of the dependent groups for difference significance in self-efficacy and quality of life according to addiction.

<table>
<thead>
<tr>
<th>Sig</th>
<th>df</th>
<th>t</th>
<th>std</th>
<th>Mean</th>
<th>N</th>
<th>Group</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&gt;.05</td>
<td>163</td>
<td>1.75</td>
<td>12.8</td>
<td>89</td>
<td>109</td>
<td>Addict</td>
<td>Quality of life</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11.6</td>
<td>85.41</td>
<td>56</td>
<td>Non-addict</td>
<td></td>
</tr>
<tr>
<td>P&lt;.05</td>
<td>163</td>
<td>1.94</td>
<td>5.4</td>
<td>50.92</td>
<td>109</td>
<td>Addict</td>
<td>Self-efficacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.8</td>
<td>51.1</td>
<td>56</td>
<td>Non-addict</td>
<td></td>
</tr>
</tbody>
</table>

Results of the significance of t-test indicated that there was no significant relationship between quality of life of the addicts and non-addicts with the HIV positive and thus the fourth hypothesis is rejected. However, results indicated that there was a significant relationship between self-efficacy of the addicts and non-addicts and the average self-efficacy of the non-addicts with the HIV positive was higher.

The sixth hypothesis: there is a significant relationship between the average quality of life of patients with HIV positive and AIDS.

The seventh hypothesis: there is a significant relationship between the average self-efficacy of patients with HIV positive and AIDS.

Table 4 shows the results of t-test of two independent groups for the sixth and seventh hypotheses of the study.

Table 4: T-test for significant difference in self-efficacy and quality of life of patients with HIV positive and AIDS.

<table>
<thead>
<tr>
<th>Sig</th>
<th>df</th>
<th>t</th>
<th>std</th>
<th>Mean</th>
<th>N</th>
<th>Group</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&gt;.05</td>
<td>163</td>
<td>0.95</td>
<td>13.8</td>
<td>86.92</td>
<td>87</td>
<td>AIDS</td>
<td>Quality of life</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10.8</td>
<td>88.74</td>
<td>78</td>
<td>HIVpositive</td>
<td></td>
</tr>
<tr>
<td>P&lt;.05</td>
<td>163</td>
<td>0.18</td>
<td>5.8</td>
<td>51.12</td>
<td>87</td>
<td>AIDS</td>
<td>Self-efficacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.2</td>
<td>51</td>
<td>78</td>
<td>HIVpositive</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 4, there was no significant relationship between quality of life and self-efficacy of patients with HIV positive and AIDS at 95% level of confidence. Therefore, the sixth and seventh hypotheses are rejected.

Discussion and conclusion:

This study investigated quality of life and self-efficacy of patients with HIV positive according to the importance of the quality of life and self-efficacy and their relationship with health and individual beliefs of their lives. Results of the study indicated that there was a significant positive relationship between self-efficacy and quality of life of patients with HIV positive at 0.05 level of significance; that is, with the increased self-efficacy, quality of life of such patients improved. This finding is compatible with the ones reported by War et al. [25] and Esmaeili [8]. Therefore, any person’s self-efficacy can determine their quality of life and with the increased level of individuals’ quality of life, the recognized self-efficacy is also enhanced. Moreover, results showed that there was a significant positive relationship between self-efficacy and components of physical limitations and public health (99% level of confidence) and social functioning and quality of life (95% level of confidence). These findings are compatible with the findings reported by Petroshkin, Berker [5], and Heravi [11]. In fact, if the individual physical limitation is lower, their social functioning will be better because physical limitation results in a lack of self-confidence and finally reduction in self-efficacy. Physical and public health leads to increased trust to the physical abilities. In addition, healthy physical individuals are more accepted by the society and this leads to increased social functioning.

Results of the difference significance in the average quality of life of males and females (Hypothesis II) showed that there was not a significant difference between average quality of life of males and females. This finding is not compatible with the results reported by Sabah et al. [20], Jalilian, and Good but does align with the research findings of Aygorez, Sarkowsky and Greenwood, and Mohammadi [13]. In fact, it can be said that gender is not the only factor, which has a determinant role in quality of life but it is the factor that can make the gender as the determinant of life is the cultural backgrounds, the specific view of gender, gender discriminations, and cultural characteristics to the gender that can have a sustainable impact on quality of life. However, studies that have conducted in the normal and moderate conditions that a gender perspective is less dominant on people's quality of life has been much less influenced by the gender. This indicates that as a psychological variable, quality of life does not depend on humans’ gender but those factors that build the overall quality can be effective and in these circumstances, any factor that can influence the overall quality in specific conditions can be called the influential factor.

In addition, results of the study indicated that average self-efficacy was nearly equal in HIV positive males and females and there was no significant relationship between them. Therefore, the third hypothesis is rejected. Findings of this hypothesis are similar to that of Hawkins [10] and Jet and Barrow. It is noteworthy that the society and community is very strict about the HIV patients and since these individuals are mostly regarded as the notorious groups of the society, they are not usually accepted by the society. Members of this group, either males or females, would become reclusive and take away the society.
Results of the fourth hypothesis of the study showed that there was no a significant relationship between average quality of life of the addicts and non-addicts with HIV positive; however, it was found that the degree of self-efficacy of the non-addicts with HIV positive was greater than the addicts with HIV positive (95% level of confidence). It should be noted that the addicts usually have lower motivation, and their acceptability by the society is very low; thus, these two factors along with the HIV would have more effect and significantly influence their efficacy. HIV positive patients do not enjoy a good economic situation and when accompanied by addiction, they spend all of their time on drug supply and use.

Results of the sixth hypothesis of the study showed that although there was no significant relationship between the average qualities of life in patients with HIV positive and AIDS, HIV positive patients had a higher average in the dimension of physical functioning (99% level of confidence), and the physical limitation and physical pain dimensions (95% level of confidence). Result of this hypothesis is compatible with the findings of War [25], Montazeri [16], and Bizarou. Patients with HIV positive and AIDS are not physically very different; patients with AIDS usually use drugs that help to strengthen their immune system, and patients with HIV positive do have a better situation in terms of immune system, physical condition, and physical functioning; however, patients with AIDS tolerate lower pain due to the use of sedatives.

Results of the last hypothesis of the study also indicated that there was no significant relationship between the mean self-efficacy in people with positive HIV and AIDS. Therefore, the seventh hypothesis of the study is also rejected. This result is compatible with Oleray’s study. It is notable that patients with HIV positive and AIDS usually see themselves as a part distinct from the community and also as the sick and disabled so that these influence their self-confidence and self-esteem and lead to a lack of trust in their own abilities. The entry of HIV into the body and the patient’s awareness of their condition make him shocked and also with the type of the perspective of the society to such patients, they usually try to hide their illness through withdrawal from the society, which affect the self-efficacy of these individuals.

Finally, according to the results of the study, it is recommended that therapeutic centers make efforts to overcome the physical limitations of these patients, identify the high risk groups, and provide general training for them in order to accept these patients from the society.

Addiction is one of the major modes of transmission of HIV in Iran and identification of the causes of addiction and its prevention has a direct relationship with prevention of AIDS and decrease in HIV statistics. Moreover, having a job and social activities does have undeniable impact on such individual’s lives. Accepting these people in social activities and providing a suitable job for them, which is a source of revenue for them, the society would provide a great help to such people and as a result of the promotion of their social activities, cause to increase in self-efficacy and quality of life of these patients.

REFERENCES


