Relationship between the Religion Orientation and Coping with Diabetes in Patients with Type 2 Diabetes

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Abstract

Objective: This study was carried out for investigating the religion orientation relationship with coping with diabetes in type 2 diabetic patients in Yazd, Iran. The present study is a kind of scientific-comparative description. The research subjects comprised of all type 2 diabetic patients admitted to the hospitals in Yazd.

Materials and Methods: The study sample was consisted of 160 people (103 female and 57 male) who were randomly selected. Allport's questionnaire and the questionnaire of coping with diabetes were used as the instruments.

Results: The results of the study revealed that there is a significant correlation between internal religion orientation and coping with diabetes in women who are suffering from type 2 diabetes (r=0.18, p=0.04). There was also a positive significant correlation between internal religion orientation and relationship with friends in diabetic women (r=0.25, p=0.01).

Conclusion: The relationship between external religion orientation and coping with diabetes in women was not significant. There was also no significant relationship between coping with diabetes and any aspects of the orientation (internal and external) in men. Therefore, the scientific role of religious beliefs and its dimensions on coping with diabetes and how much the main psychological variables have effect on diabetes are of high importance.

Keywords: External religion orientation, Internal religion orientation, coping, Type 2 diabetes.

Introduction

Diabetes includes a group of prevalent metabolic disorders with hyperglycemia as their common phenotype. (1). The reported prevalence of diabetes in Iran in 2005 was 7.7% (2) and 8.7% in 2007 (3). According to American Diabetes Association definitions (4) diabetes is divided into four clinical types. Type 1 diabetes, type 2 diabetes, gestational diabetes, and other types of diabetes (5). Diabetes is a disease which mainly is controlled by the patients. For achieving the final treatment of diabetes there is a long way ahead, but medical care and social- psychological support have great effects on its short-term and long-term outcomes (6). The costs of diabetes influence any diabetic person and anywhere. These costs are not just financial expenses, but also

include intangible costs like pain, anxiety, worry and generally life quality reduction which are effective on the patients' life and their families (7,8).

One of the factors that have been taken into consideration in recent decades and causes people to accept their pains is spirituality and religion. Nowadays doctors, nurses and clergymen have commonly worked for the cure and treatment of the patients. Although spirituality and religion are historically related to each other and most people use them instead of each other, spirituality is separated from religion and religious behaviors (9). William James sees the religion as the experiences, functions, and emotions which people have in their own loneliness and solitude. In this situation, they forget themselves and pay attention to God (the source of power) (10). According to Allport and Ross (11), the person who has internal religion orientation lives with his own religion. Those who have internal orientation find their main motivations in the religion itself. The personality of such people will be unified with their religion. On the other hand, those who have external religion orientation move toward religion for achieving other goals. In other word, these kinds of people move towards God without ignoring themselves. The coping with disease is the process of maintaining a positive attitude towards ourselves and the world in spite of physical problems (12).

History reveals that religion and behaviors are considered as a strategy for coping diseases. The study done by Lowis, Edvard, Roe, Jewell, the role of religion in a group of elderly studied and the results showed that religion can be used as a mechanism in stressful situations (13). The result of the study investigated the effect of religion on the mental health of patients suffering from HIV showed that religion with decreasing avoidant coping and increasing social support causes increased mental health in the individuals and it can affect social-mental stress in different ways (14). In addition, in another study, they examined the role of religion in patients who had cancer and the results revealed that religion is used for coping with psychological diseases, promoting resiliency, and preventing from unhealthy behaviors (15). According to what was mentioned the relationship between religious behaviors and coping with diabetes has not been taken into account. Therefore, the purpose of this study is to investigate the relationship between religion orientation and coping with type 2 diabetes.

Materials and Methods

The present study is a kind of scientific-comparative description. The sample was consisted of women and men of 20-60 years old with diabetes who had records in diabetes clinic in Meybod, Iran. Inclusion criteria consisted of patients who aged 20-60 years with at least one year diagnosis before the beginning of the study and were visited by one of the physicians of the clinic. Excluded were patients with a history of somatic diseases (except for the complications related to diabetes), mental retardation or diagnosis of other psychological disorders before the diagnosis of diabetes.

First, a list of people who aged within the mentioned range was obtained from diabetes clinic. A number of participants chosen randomly from the list who were contacted and at the end, those meeting the criteria to were invited to take part in the research. The study data were analyzed using Pearson's correlation coefficient in order to investigate the relation between intrinsic and extrinsic religious orientation and coping with diabetes. Moreover, one-way analysis of variance (ANOVA) was applied to investigate intrinsic and extrinsic religious orientation and coping with diabetes in diabetic males and females.

Instruments

The questionnaires which were used in this study were Allport questionnaire and the questionnaire of coping with diabetes.

The religion orientation questionnaire

Allport and Ross (11) questionnaire of religion orientation was used in this study. The

questionnaire included 21 sentences and the multiple choice questions were ranged in the following way: completely disagree, almost disagree, almost agree, and completely agree. Allport and Ross reported the correlation of 0.21 for internal and external orientations (16). This test was translated and standardized by Jon Bozorgi in Iran (17). Its internal consistency that was calculated by Cronbach's alpha is 0.71 and its retest reliability is 0.74. In another study done in Tehran University with a sample of 112 people, Cronbach's alpha was 0.712 (18). In this scale, the options of sentences 1 to 12 that evaluate the external religion orientation are from "completely disagree" till "completely agree" and in sentences 13 to 21 which evaluate internal religion orientation, the options are in the opposite way. This is Likert scale and the scores of 1-5 are given to the responses.

Questionnaire of coping with diabetes

This questionnaire is composed of 27 items and 5 factors. The factors are family relationships, relationship with friends, dependency and independency conflicts, physical image, and the attitude toward the disease showing how diabetes affects the individual's way of living and his coping. Those responses that show positive coping with diabetes were given the score of 1 and those which show negative coping were given 0. The reliability of this questionnaire with retest method on 15 diabetic patients was 0.73 after 5 weeks, and its content validity was confirmed by three psychologists and endocrinologists.

Results

The study sample was consisted of 160 people including 103 females (64.4%) and 57 males (35/6%). The most of the participants of the study (31.2%, n=50) were in the age range of 41-50 and the least frequency (13.1%, n=21) was in the age range of 21-30. Most subjects were women (64.4%, n=103) and also married (93.8%, n=150).

The internal religion is scored in a way that higher scores in this scale indicate less internal religion while this is not true for external religion scores. As the data in Table 1 reveals, mean ± standard deviation (SD) of internal religion orientation and external religion orientation were 29.18±4.004 and 20±3.79, respectively. Mean±SD of coping with diabetes were 40.12±3.33.

Table 2 shows the results of ANOVA on the mean score of coping with diabetes according to the gender. There was no significant difference between diabetic women and men in coping with diabetes (p=0.9), internal religion orientation (p=0.12) and external religion orientation (p=0.55).

Table 3 shows the correlation between religion orientation (internal and external) and dimensions of coping with diabetes in women (α=0.01).

The data in table 3 shows a significant relationship between internal religion orientation and the relationship with friends (r=0.25, p=0.01). There was also a positive relationship between internal religion orientation and the total score of coping with diabetes (r=0.18, p=0.04). However, there was no significant relationship between internal and external religion orientations in other dimensions of coping with diabetes (the attitude towards the disease, dependency and independency conflict, the relationship with friends and the physical image).

Table 4 represents the correlation between religion orientation (internal and external) and the dimensions of coping with diabetes in

Table 1. The frequency and percentage of the frequency of the sample group based on gender, marital status, and age

Variable		Frequency	Percentage of the frequency
Gender	Female	103	64.4
	male	57	35.6
Marital status	Single	6	3.8
	married	150	93.8
Age	21-30	21	13.1
	31-40	43	26.9
	41-50	50	31.2
	51-60	26	16.2

Table 2. mean, and standard deviation of religion orientation (internal and external), and the dimensions of compatibility with diabetes in the sample group

Variable		Mean	Standard deviation
Aspects of compatibility with diabetes	Family relationship	3.04	0.68
	Dependency and independency conflicts	7.29	1.1
	Relationship with friends	9.43	1.32
	Attitude toward the disease	18.94	1.85
	Physical image	1.41	0.46
Religion orientation	Internal religion orientation	29.18	4.004
	External religion orientation	20.03	3.79
	Compatibility with diabetes	40.12	3.33

men. As shown, there is no significant relationship between internal religion orientation and any of the dimensions of coping with diabetes in men. This relationship also existed between external religion orientation and the dimensions of coping with diabetes.

Discussion

The present study was carried out to investigate the relationship between religion orientation (internal and external) and coping with diabetes. The results indicate that there is a significant relationship between internal religion orientation and coping with diabetes in women while there is no significant relationship between external religion orientation and coping with diabetes in women. In addition, coping with diabetes had no relationship with any of religion orientation dimensions (internal and external) in men. In fact, religion can be considered as a strategy for confronting with anxiety and disease. The results of this study are in agreement with the results of other researches in this field. Karami et al investigated the dimensions of religion orientation with mental health. The results of their study indicated that commitment to morality is a main variable in girls' mental health (10). Lowis et al. assessed the role of religion in the adjustment of the anxiety of transferring to sanitarium in elderly (19). The results of their study revealed that religion can be used as an important and adjusting variable in confronting with stressful situations. A study by Koffman et al., on the role of the religion in patients with advanced cancer indicated that religion and belief to God can be considered important factors which may reduce the psychological and physical effects

Table 3. the results of Anova (analysis of variance) on the mean of compatibility & internal religion orientation & external religion orientation with diabetes score in two groups of men and woman who are suffering from diabetes

Variable	Total mean	Degree of freedom	Mean square	F	The significance level
Compatibility with diabetes	0.15	1	0.15	0.01	0.9
Internal religion orientation	37.81	1	37.81	2.37	0.12
External religion orientation	5.14	1	5.14	0.35	0.55

Table 4. the correlation between internal and external religion orientation and dimensions of compatibility with diabetes in women

Variable	Attitude towards the disease	Dependency and independency conflicts	Relationship with friends	Family relationship	Physical image	Compatibility with diabetes
Internal religion orientation	-0.09	-0.09	0.25	0.12	-0.14	0.18
The significance level	0.35	0.31	0.01	0.22	0.14	0.04
External religion orientation	-0.09	0.08	-0.04	-0.28	0.16	0.13
The significance level	0.35	0.39	0.65	0.13	0.09	0.17

(the significance level, α=0.01)

of the disease (20). Results of the study done by Maman et al. indicated that the belief of the HIV-positive women played an important role on their copying strategies. Their belief that God has an important role for curing them brought about a hope in them that led to the decreasing of the symptoms (21). Elokin et al. mentioned though defining religion and spirituality is difficult, the role of these two variables is undeniable in patients' cure (14). Steglitz et al. (15) examined the effect of religion and spirituality on mental health of the HIV-positive people. The results showed that religion is positively related with active coping and social support which leads to decreasing stress and anxiety in those people. The results of the current study are also in agreement with the results of the research by Gharaii et al. in Kashan, Iran (22). They revealed a significant relationship between internal religion and mental health while this relationship has not been observed in external religion. Also, there was a positive significant relationship between internal religion orientation and the relationship with friends in women; this result can be related to more savings bond features in women. In fact, with views and religious beliefs being internalized in women, the sense of savings bond and intimacy will increase that can lead to increasing interpersonal support and people's health improvement.

This result is in agreement with the results of Heidari et al. study (23) in which with increasing social support, mental health and blood sugar control will increase. Religion can interfere with preliminary assessment steps of life threatening factors and personal attributes and it can act as a mediator variable. Also, in the reassessment stage and after the problem happens it can have a determining role and can bring about more hope and understanding in the person. In addition, at the stage of events interpretation, religion can have a positive effect on the stressors special results. It can be inferred from the results of this study that the role of religion attitude is stronger than religious practices. The kind of attitude people have toward religious practices determines their behavior in religious rites. Those who have internal religion orientation can better moderate the stressors and as a result can have better mental health.

Religious beliefs can direct the individual towards mental health in a way that he can be committed to religious beliefs in a self-motivated way and with a logical insight and understanding. However, those who have external religion orientation experience more stress in confronting with difficulties since it is probable that instrumental orientation to religion develops in them (10). With increasing religious practices and beliefs in people, the coping with diabetes will increase in them. People can use religious coping for adopting their conditions. Religious beliefs can affect all their aspects of life in a physical and mental-social way. Because religious beliefs can enable the individual interpersonally to control his anger physiologically, cognitively, and emotionally, and can help him to accept the responsibility of his actions (18,24). Those who have internal religion orientation can internalize their beliefs and live with them, though external depression symptoms are observable in them. In other words, despite their apparent conflicts in the environment, they have more unity in their performances, emotions, and thoughts because of their internal consistency and their ability to internalize their values.

About the difference between gender and religion (internal religion orientation) it can be mentioned that women believe in religion more than men. Its reason is not completely clear, but women's more obedience and their offer flexibility can be the reason of the difference between men and women in religion (22).

In the future studies, it is important to consider other psychological factors, since investigating possible interactive effects of some personal issues and some religious issues in predicting coping with type 2 diabetes can help us in explaining difficulties in a more suitable way. It can be suggested to the psychological researchers and those in the related areas to

examine the effect of the important psychological variables such as personality features, self-esteem, optimism, attributable style, recalcitrancy, and as the mediator variables between religious beliefs and coping with diabetes, in order to investigate the scientific role of religious beliefs and its dimension on coping with diabetes.

This study has some limitations. The limited number of the subjects who were a group of elderly went to the hospitals in Yazd is one of the limitations. So, more studies should be done with regular repetitions, in different cities and on other age groups with other instruments and the results should be compared together.

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