Association between Mindfulness with Depression and Anxiety in Patients with Diabetes in Gorgan

Gorgan’da Diyabetli Hastalarda Depresyon Farkındalığı ve Kaygı Arasındaki İlişki

Mahboobeh Zahedi¹, Arash Rezaei Shahmirzadi², Mohammad Taghi Badeleh¹, Reza Mohammadi¹, Farzam Mirkamali³
Maryam Zahedi⁴

¹Golestan Research Center of Gasteroentrology and Hepatology, Golestan University of Medical Sciences, Gorgan, Iran
²Student Research committee, Golestan University of Medical Sciences, Gorgan, Iran
³Golestan University of Medical Sciences, Gorgan, Iran
⁴Gorgan Conjenital Malformations research Center, Department of Internal medicine, Golestan University of Medical Sciences, Gorgan, Iran

ABSTRACT

Introduction: This research was aimed to seek the association between mindfulness with depression and anxiety in patients with diabetes attended to diabetes ward in 5Azar hospital in Gorgan city.

Method: A cross-sectional survey was done on 323 patients with diabetes attended to diabetes ward of 5Azar hospital in Gorgan city that were selected using convenient sampling and Krejcie and Morgan table. The current instruments were included mindfulness questionnaire, Beck Anxiety and Depression Scale and demographic questionnaire. To analysis, software (version 20), and inferential statistical test such as spearman correlation coefficient, independent t-test and Mann-Whitney were utilized.

Results: Stated that most patients (82%) were married, and 76.8% were unemployed. There were negative and significant correlation between mindfulness and depression (r = -0.51, p=0.001) and between mindfulness and anxiety (r=-0.72, p=0.001). In addition, gender was remarkably associated with depression and anxiety (p=0.045).

Conclusion: Medical and psychiatric counseling for early detection, developing programs related to prevention and promotion of diabetes, and also psychological training particularly mindfulness appeared to be likely useful.

Key Words: Anxiety, depression, diabetes mellitus, mindfulness

ÖZET

Amaç: Bu araştırmanın amacı, Gorgan kentindeki 5Azar hastanesinde diyabet kliniğindeki diyabetli hastalarda depresyon ile anksiyetenin farkındalığı arası ilişkisini araştırmaktı.

Yöntem: Gorgan kentindeki 5Azar hastanesinin diyabeti olan hastaları, uygun örneklemle ve Krejcie ve Morgan tablosu kullanılarak seçilen 323 hastada kesitsel bir anket yapılıp, veri toplanmıştı. Anket kapsamlı anksiyet ve depresyon ölçeği ve demografik bilgileri dahil edilmiş, analiz için yazılım (versiyon 20) ve çıkarımsal istatistiksel test kullanılmıştır.

Bulgular: Hastaların çoğunun (% 82) evli ve % 76,8’inin işsiz olduğunu belirtti. Farkındalık ile depresyon arasında (r = -0.51, p = 0.001) ve farkındalık ile kaygı arasında (r = -0.72, p = 0.001) negatif ve anlamlı bir ilişki vardı. Ayrıca cinsiyet, depresyon ve anksiyete ile belirgin şekilde ilişkilidi (p = 0.045).

Sonuç: Erken tanı için tıbbi ve psikiyatrik danışmanlık, diyabetin önlenmesi ve teşvikleri ile ilgili programlar geliştirilmesi ve ayrıca özellikle dikkatli olmada psikolojik eğitimin yararlı olabileceği ortaya çıktı.

Anahtar Sözcükler: Anksiyete, depresyon, diabetes mellitus, farkındalık

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Diabetes causes debilitating and life-threatening problems that constitutes negative impact on the welfare of patients and their social life. This disease affects the lives of millions of people and also is considered as a major cause of death across the world (1). Populations of 120-100 million people live with diabetes worldwide. Given the available statistics, the prevalence of diabetes is 2.8 percent and 1.2 percent in the urban and in the rural areas, accordingly (2).

The nature of the disease and its complications not only imposes the economic burden but also reduces the quality of life of patients and their families such that it has been reported that the health care costs for a person with diabetes is 6.4 times compared to a non-diabetic person, approximately (3). Diabetes reduces quality of life in all areas of life such that it risks the physical performance (complications), psychological state (depression) and social functioning (incompatible) of patients (4).

Mindfulness means paying attention to the present in a particular manner, objectively and without judgment (5). Mindfulness-based stress reduction is one of the techniques that widely uses in mind-body perspective for teaching individuals to focus on thoughts, behavior, feelings and the present events and without judgment using diaphragmatic breathing (6), also controls them, and in final, releases from routine mind that focused on past and future (7).

Mindfulness-based therapy in the treatment of many psychiatric disorders. Aforementioned treatment benefits from the reduced drug consumption and side effects; moreover, more people with depression or anxiety can be likely treated due to time and cost saving process (8). One of the cognitive therapies that its long-term positive results in reducing emotional distress (including depression and anxiety), and a variety of chronic diseases such as diabetes has been confirmed is mindfulness, especially mindfulness-based stress reduction (9). At present, we sought to explore the association between mindfulness with depression and anxiety in patients with diabetes attended to diabetes ward in 5Azar hospital in Gorgan city.

RESULTS

According to findings, 65% and 35% of respondents were female and male, respectively. Additionally, more than 85% of patients aged over 40 years. The vast majority of patients 94.1% suffered from type 2 diabetes. Also, most complication 31% caused by diabetes was eye complications (table 1). Men with an average of 124.68 had higher mindfulness compared to women with an average of 122.14. However, women (13.66) more suffered from depression than men (11.66). In a same way, women (43.89) were more anxious compared to men (39.53). The total score of patients also stated that mindfulness of subjects was higher than average (123.03), while their depression (12.96) and anxiety (42.37) were moderate.

Pearson correlation coefficient revealed a negative and remarkable association between mindfulness and depression of patients (p=0.001, r= -0.51). After standardization, linear regression model showed that lack of judgment and observations were the strongest predictors of depression in patients with diabetes (table 2).

Given the Spearman correlation coefficient, there was a significant negative between mindfulness and anxiety of patients (p=0.001, r= -0.72). Besides, after standardization, linear regression model found observation, inaction, lack of judgment and act with awareness were strongest predictors of anxiety of patients (table 3). Independent t-test indicated a no meaningful differences in mindfulness according to gender (p=0.079).

To compare anxiety and depression in diabetic patients based on gender; Mann-Whitney test was used that cited a significant relationship between mindfulness and depression (p=0.045) and anxiety (p= 0.001) (table 4).

Table 1. Demographic characteristics of patients of the study

| Variables | Frequency | Percent |
|-----------|-----------|---------|
| Age       |           |         |
| 20-25     | 4         | 1.2     |
| 25-40     | 44        | 13.6    |
| 40 <      | 275       | 85.1    |
| Gender    |           |         |
| Male      | 113       | 35      |
| Female    | 210       | 65      |
| Job       |           |         |
| With income| 75       | 23.2    |
| Without income| 248     | 76.8    |
| Illiterate| 110       | 34.1    |
| Under diploma| 142    | 44      |
| Diploma   | 24        | 7.4     |
| Education status |    |         |
| Associate Degree| 10   | 3.1     |
| Bachelor  | 27        | 8.4     |
| Graduate level| 10    | 3.1     |
| Single    | 3         | 0.9     |
| Marital status |     |         |
| Married   | 267       | 82.7    |
| Divorced  | 5         | 1.5     |
| Widow     | 48        | 14.9    |
| Type of diabetes | |         |
| Type 1    | 19        | 5.9     |
| Type 2    | 304       | 94.1    |
| Duration of diabetes | |         |
| 1 to 5 years | 107   | 33.1    |
| 5<        | 168       | 52      |
| 1>        | 57        | 17.6    |
| Duration of treatment | |         |
| 1 to 5 years | 111   | 34.4    |
| 5<        | 155       | 48      |
applying continues care on practice in type 2 diabetic patients; a randomized clinical trial.

No conflict of interest was declared by the authors.

especially mindfulness appeared to be likely beneficial.

regulating of depression and anxiety as well as psychological training related to prevention and healing of patients with diabetes with the aim of

CONCLUSION

able to regulate their emotions; therefore, they can be more influenced by

sensitive and cannot fully accept their disease; then, they spend life with its

significant difference between males and females in terms of depression such

increases awareness of the patients toward mental and physical feelings, and

Furthermore, mindfulness forms an attention without judgment and also

reappraisal, strengthen emotion regulation skills and distress tolerance.

remarkable effects of mindfulness-based intervention therapy on reducing

symptoms of depression. In fact, subject with higher mindfulness presented

In line with other studies (17, 18), the current findings stated a statistical

The prevalence of mental disorders is more common in those with less

education (13). Thus, group education of problem-solving skills such as

mindfulness can be helpful. Ruminan is an attempt to resolve problematic

emotions through the process of analysis and problem solving.

The present results revealed that patients with diabetes had higher than

average of mindfulness and also suffered from moderate depression. In

addition, there was a negative significant association between mindfulness

and depression that is in accordance with other explorations (14-16) indicating

remarkable effects of mindfulness-based intervention therapy on reducing

problems because of poor physical and mental health. The results of this

study that women were more depressed. To explain, women are emotionally

more sensitive and emotionally more capable of coping with stress, and also are

less anxiety. To justify, mindfulness can protects the individual against stress-

symptoms of depression. In fact, subject with higher mindfulness presented

in brief, it helps to accept the emotions and physical phenomena as it happens.

in line with other studies (17, 18), the current findings stated a statistical

significant difference between males and females in terms of depression such

that women were more depressed. To explain, women are emotionally more

sensitive and cannot fully accept their disease; then, they spend life with its

related concerns, in final, they might be likely at higher risk of depression (19).

Given the present results, there was a meaningful association between male

and female patients about anxiety in the way that women experienced more

anxiety that is in line with Ranjbar et al survey (17). As, women are emotionally

more sensitive and have less tolerance to cope with stress, and also are less

able to regulate their emotions; therefore, they can be more influenced by

their emotions and it makes them to be more dependent to family, friends

and society, emotionally.

CONCLUSION

Medical and psychiatric consultation for early diagnosis and planning

related to prevention and healing of patients with diabetes with the aim of

regulating of depression and anxiety as well as psychological training

especially mindfulness appeared to be likely beneficial.

Conflict of interest

No conflict of interest was declared by the authors.

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