

Original Article

The Examination of Type 2 Diabetes Patients' Acceptance of Disease and Self-Care Situations

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Abstract

Background: Diabetes is a serious and growing health problem worldwide and is a chronic and progressive disease that significantly affects quality of life.

Objective: This study was conducted to determine the acceptance and self-care status of patients with type 2 diabetes.

Methodology: This study was conducted descriptively with the aim of determining type 2 diabetes patients' acceptance of disease and self-care situations. Data from the study were collected using the descriptive characteristics form, the Disease Acceptance Scale, and the Diabetes Self-Care Scale. In the analysis of the data, number, percentage, mean, variance analysis, Kruskal Wallis, Mann Whitney-U, correlation analysis and t test in independent groups were used.

Results: Patients with type 2 diabetes included in the study were found to have an average score of 19.52 ± 7.47 on the Acceptance Scale and a mean score of 80.32 ± 12.46 on the Diabetes Self-Care Scale, which meant that acceptance and self-care were found to be low.

Conclusions: It was determined that patients with type 2 diabetes had low acceptance and self-care status, and that the acceptance of the disease did not affect self-care. It may be advisable to carry out programs aimed at raising the quality of life of patients, and to inform patients about the disease and its process in order to increase the level of patient acceptance and improve their self-care.

Keywords: Type 2 Diabetes, Disease Acceptance, Self-Care, Nursing

Introduction

Diabetes is a serious and growing health problem worldwide and is a chronic and progressive disease that significantly affects quality of life (Tomlin & Sinclair, 2016). The World Health Organization (WHO) estimates that there are more than 346 million people worldwide with diabetes, and 90% of this group of patients is diagnosed with type 2 diabetes (Organization, 05 June 2016; Shrivastava, Shrivastava, & Ramasamy, 2013). It is estimated that this figure will

double in the next 20 years (Zaccardi, Webb, Yates, & Davies, 2015). Increased numbers of patients with diabetes are leading to more complications of diabetes and increased hospitalizations (Ha & Kim, 2016; Swartwout, El-Zein, Deyo, Sweenie, & Streisand, 2016). These complications are also a social and financial burden on individuals, healthcare providers and health care systems (Association, 2015; Samuels, Cohen, Brancati, Coresh, & Kao, 2006). Type 2 diabetes needs to be controlled so that complications of diabetes do not lead

to pathophysiological disorders and the burden of care in patients is reduced (Lavernia, Adkins, & Shubrook, 2015). Keeping the disease under control and ensuring the patient's compliance with treatment can be achieved by adhering to the patient's acceptance and self-care behaviors.

Because type 2 diabetes brings about physiological and psychological changes in the lives of patients, adapting to changing conditions of patients requires that they use new coping strategies (De Ridder, Geenen, Kuijjer, & van Middendorp, 2008). Acceptance, one of the strategies to cope with illness, is seen as one of the basic structures in the psychological adaptation of chronic diseases and disorders (Chan, 2012). Acceptance is defined as accepting mentally open and honest, without judgment, against internal and external experiences (Lindsay & Creswell, 2017). Acceptance of the disease is seen as a determinant of the degree of adaptation of a person to his or her medical condition and whether he or she has adopted the disease emotionally (Adamska & Miniszewska, 2016; Van Damme-Ostapowicz et al., 2014).

The development of self-care behaviors of patients will positively contribute to the acceptance of the disease by affecting the management of type 2 diabetes positively, increasing the quality of life of the patients (Dennison, Moss-Morris, & Chalder, 2009; Phillips, 2016). Nurses who have significant responsibilities in developing self-care behaviors of patients with Type 2 diabetes have effective roles in ensuring compliance with self-care by providing independence in self-care behaviors (Cavicchioli et al., 2016). Nurses should monitor the complications of diabetes, educate their patients and their families about the illness and the process (Mays, 2015), and accept self-

care behaviors such as healthy nutrition, regular check-up, compliance with medication, problem solving (Pillay et al., 2015). In this process, patients should be able to practice self-care behaviors, evaluate self-care skills, and develop self-care (Aba & Tel, 2012). This study was conducted to determine the acceptance and self-care status of patients with type 2 diabetes.

Methods

The descriptive type of this study consisted of 1971 patients who were hospitalized in Mus State Hospital in Mus, Turkey between September 2016 and January 2017 in the Departments of Internal Medicine, General Surgery, Chest Diseases and Cardiology. In the study, 201 patients with type 2 diabetes who were not selected for sampling and who met the criteria of the study (who were diagnosed with type 2 diabetes, who were open to communication and business cooperation, had no known psychiatric disorder, volunteered to participate in the study) were taken. Data were collected using descriptive characteristics form, the Acceptance of Disease Scale (SDS) and the Diabetes Self-Care Scale (DSCS). Filling the forms took about 15-20 minutes.

Data Collection Forms

Introductory Features Form: There were 7 questions about the characteristics of the descriptors related to gender, marital status, age, place of residence, education status, working status and income level; 4 questions about illnesses (duration of illness, previous hospitalization due to diabetes, chronic illness other than diabetes and regular medication use) were formed from 11 questions in total.

Disease Acceptance Scale: It is a Likert type measure developed by Felton and Revenson in 1984 in America. The scale is used when the patient's degree of

acceptance of the patient is measured. The validity and reliability of the scale was adapted by Besen and Esen to the Turkish society in 2009. Validity and reliability include all areas of the scale performed to determine the level of acceptance of individuals with type 2 diabetes, specific difficulties and limitations with the cause of the disease. Self-efficacy deficits imposed on life due to illness, limitations such as sense of dependence on other people and decrease in self-esteem, negative emotions, and evaluation and acceptance emotions despite these emotions are evaluated. The Disease Acceptance Scale consists of eight items and each item consists of five items. The lowest score of the scale is 8 and the highest score is 40, indicating the general measure of the level of acceptance of the disease. The Likert type scale is scored according to the 5-point participation-non-participation status. Scale 6 is scored reversely (Dilek Buyukkaya Besen & Esen, 2009; Dilek Buyukkaya Besen & Esen, 2011). The study done by Besen and Esen (2009) stated that the Cronbach α coefficient of internal consistency is 0.79. In this study, the Cronbach α coefficient of internal consistency was found to be 0.83.

Diabetes Self-Care Scale (DSCS): It was developed by Lee and Fisher in 2005 in the United States to measure self-care activities of patients with Type 2 diabetes. The Turkish validity and reliability study of the scale was conducted by Karakurt and Kasikci in 2008. It is a Likert type scale consisting of 35 items (Lee & Fisher, 2005). The acceptable minimum level of the scale according to the 4 point Likert type was determined as 92 points. The maximum score of the scale is 140, and the score of self-care activities of residents also increases positively (Karakurt & Kasikci, 2015). The study done by Karakurt and Kasikci (2008) stated that the Cronbach α

coefficient of internal consistency is 0.81. Cronbach α value was found to be 0.81 in this study.

Evaluation of Data: The evaluation of the data obtained as a result of the research was analyzed by SPSS for Windows 17 package program on the computer environment. In the analysis of the data, the number is given as the minimum and the maximum percentage, the mean and the standard deviation. The Shapiro Wilk normality test was used to determine if the data for the numerical variables fit the normal distribution. According to the Shapiro Wilk test, the acceptance score was not normally distributed ($p < 0.05$) and the diabetes self-care score was normally distributed ($p > 0.05$). Variance analysis, Kruskal Wallis, t test in independent groups, Mann Whitney-U and Spearman correlation analysis were used in the evaluation of the data. The significance level of statistical analysis was evaluated as $p < 0.05$.

Ethical Consideration: After the approval of the Ethics Committee of Erzincan University, written permission was obtained from the General Secretariat of the Union of Public Hospitals of Mus Province for the conduct of the research. Before starting the research, the aim of investigating the individuals who will participate in the research has been adhered to the Illuminated Onam Principle by explaining the purpose, duration and application stage. The verbal approvals of the individuals involved in the survey were taken and volunteers were admitted to work.

Results

The mean score of acceptance of patients is 19.52 ± 7.47 and the mean diabetes self-care score is 80.32 ± 12.46 (Table 1). As shown in Table 2, there was a statistically significant difference

between the mean scores of disease acceptance according to the patients' sex, marital status, education status, working status, presence of previous illness due to diabetes, and chronic disease except diabetes ($p < 0.05$). It was determined that male patients, single / divorced / widowed, employees, those who were not previously ill due to diabetes, and those who had no other disease except diabetes, had a higher mean score. It was determined that the difference between the mean scores of the disease acceptance point according to the educational status of the patients with type 2 diabetes was significant. In a further analysis (U) to determine which group originated the difference according to educational status; Average scores of non-literate and literate / primary school graduates are lower than junior high / high school graduates. It was determined that the difference between the mean scores of disease acceptance point of patients with type 2 diabetes included in the study was statistically significant ($p < 0.05$). In a further analysis (U) to determine the group from which the difference is based on the disease duration; It has been determined that the average score of those with diabetes for 0-5 years is higher than those with diabetes for 6-10 years, 16-20 years and 21 years and above.

It was determined that the difference between the mean age of the patients were not statistically significant ($p > 0.05$) (Table 2).

As shown in Table 3, the difference between diabetic self-care point averages according to marital status of patients with type 2 diabetes was statistically significant ($p < 0.05$). It was determined that the average score of single / divorced / widowers was higher.

It was determined that the difference between diabetic self-care point averages was significant according to their educational status ($p < 0.05$). In the advanced analysis (LSD) to determine which group originated the difference according to educational status; It has been determined that university graduates have higher scores than non-literate, literate / primary and secondary / high school graduates.

There was no statistically significant difference between diabetic self-care point averages according to gender, age and working status ($p > 0.05$).

It was determined that the difference between diabetic self-care mean scores of patients with type 2 diabetes who were participated in the study was not statistically significant ($p > 0.05$), according to the duration of illness, previous hospitalization due to diabetes, and other diseases besides diabetes (Table 3).

As shown in Table 4, there was an inverse correlation ($r = -0.043$) between the disease acceptance score and the diabetes self-care score. Moreover, this relationship is not statistically significant.

Table 1. Distribution of the Score of Acceptance of Illness Scale and Diabetes Self-Care Scale of Patients with Type 2 Diabetes (n = 201)

Scales	n	Min-Max	Mean	SD
Acceptance of Illness Scale	201	8-39	19.52	7.47
Diabetes Self Care Score	201	40-112	80.32	12.46

Table 2. Comparison of Patient Acceptance of Illness Scale Point Averages According to Socio-demographic Characteristics of Type 2 Diabetic Patients (n = 201)

Socio-demographic Characteristics		n	%	Mean	SS.	Test and Significance
Gender	Female	109	54.2	18.47	7.87	U=4146.000 p=0.034
	Male	92	45.8	20.77	7.90	
Marital Status	Married	188	93.5	19.19	7.86	U=774.000 p=0.027
	Single/Divorced/ Widowed	13	6.5	24.31	8.02	
Age	29-39 age	10	5.0	22.50	8.24	x ² _{KW} =4.755 p=0.093
	40-49 age	29	14.4	22.34	9.51	
	50 and over	162	80.6	18.83	7.52	
Education Status	Not literate	130	64.7	18.35	7.87	x ² _{KW} =14.457 p=0.002
	Literate / Primary School	52	25.8	20.29	7.49	
	Middle School /High School	13	6.5	26.54	6.54	
	Graduated from a Universty	6	3.0	23.00	8.22	
Working Status	Unemployed	154	76.6	18.64	7.57	U=2676.500 p=0.007
	Employed	47	23.4	22.43	8.52	
Disease Duration	0-5	61	30.3	22.34	8.07	x ² _{KW} =12.007 p=0.017
	6-10	50	24.9	18.44	7.88	
	11-15	35	17.4	19.11	7.64	
	16-20	37	18.4	17.49	8.07	
	21 years and over	18	9.0	17.94	5.95	
Situation of Previous Hospitalization Due to Diabetes	Yes	159	79.1	18.59	7.55	U=2348.500 p=0.003
	No	42	20.9	23.05	8.49	
Chronic Disease Other than Diabetes	Yes	168	83.6	18.79	7.60	U=1929.000 p=0.006
	No	33	16.4	23.27	8.73	

Table 3. Comparison of Diabetes Self-Care Score averages according to socio-demographic characteristics of Type 2 diabetic patients (n = 201)

Socio-demographic Characteristics		n	%	Mean	SS.	Test and Significance
Gender	Female	109	54.2	80.27	11.95	t=-0.065 p=0.949
	Male	92	45.8	80.38	13.11	
Marital Status	Married	188	93.5	79.78	12.36	t=-2.371

Socio-demographic Characteristics		n	%	Mean	SS.	Test and Significance
Gender	Female	109	54.2	80.27	11.95	t=-0.065
	Male	92	45.8	80.38	13.11	p=0.949
	Single/Divorced/Widowed	13	6.5	88.15	11.68	p= 0.019
Age	29-39 age	10	5.0	83.40	12.31	F= 1.258 p=0.286
	40-49 age	29	14.4	83.07	11.17	
	50 and over	162	80.6	79.64	12.66	
Living Place	City	81	40.2	81.27	13.25	F= 1.203 p=0.302
	District	20	10.0	82.90	13.26	
	Village- town	100	49.8	79.03	11.59	
Education Status	Not literate	130	64.7	79.25	12.49	F=3.560 p= 0.015
	Literate / Primary School	52	25.8	80.69	11.67	
	Middle School /High School	13	6.5	82.46	11.40	
	Graduated from a Universty	6	3.0	95.50	12.94	
Working Status	Unemployed	154	76.6	80.33	12.41	t=0.026
	Employed	47	23.4	80.28	12.78	p= 0.979
Disease Duration	0-5	61	30.3	79.54	14.05	F=2.115 p=0.080
	6-10	50	24.9	78.60	12.04	
	11-15	35	17.4	84.97	12.25	
	16-20	37	18.4	78.08	10.08	
	21 years and over	18	9.0	83.28	11.05	
Situation of Previous Hospitalization Due to Diabetes	Yes	159	79.1	81.03	12.05	t=1.570
	No	42	20.9	77.64	13.75	p= 0.118
Chronic Disease Other than Diabetes	Yes	1683	83.6	79.72	12.33	t=-1.541
	No	3	16.4	83.36	12.86	p=0.125

Table 4. Relationship Between Patient Acceptance of Illness Scale Score and Diabetes Self-Care Score (n = 201)

Scales	Diabetes Self-Care Score	
Acceptance of Illness Scale	r	-0.043
	p	0.549

Discussion

This study with the aim of determining the acceptance and self-care status of patients with type 2 diabetes has been discussed in the light of relevant literature.

It was determined that the average of the mean score of the patients with type 2 diabetes included in the study was 19.52 ± 7.47 . Patients were found to be below the mid-point of the average of the AIS scores. Similar to these research findings, many studies have reported that the mean of the AIS scores is low (Religioni, Czerw, & Deptała, 2015; Uchmanowicz, Jankowska-Polanska, Motowidlo, Uchmanowicz, & Chabowski, 2016; Van Damme-Ostapowicz et al., 2014). Unlike the findings of this research, it has been reported that in studies of patients with type 2 diabetes, Sireci and Yilmaz Karabulutlu (2012); in studies of chronic diseases, Zalewska et al. (2007), the mean of the AIS scores is above the middle level (Sireci & Karabulutlu, 2012; Zalewska, Miniszewska, Chodkiewicz, & Narbutt, 2007). The level of acceptance of the disease also indicates that the patient is psychologically compatible with the disease (Nowicki, Krzemkowska, & Rhone, 2015). The low incidence of illness in this study may be due to the current psychological state of the patients. In addition, the presence of other chronic diseases in patients other than diabetes may have caused patients to have low acceptance of diabetes.

Self-care is considered a viable occupation. It is directly related to the rules of human functions and provides for the deliberate development of changing environmental conditions or existing action results. The power and ability of one person for action is called its collective power (Denyes, Orem, & Bekel, 2001). It was determined that the mean total score of DSCS of the patients with type 2 diabetes was 80.32 ± 12.46 . As the acceptable minimum level of the scale was determined as 92 points, the average self-care point in this survey is considered to be low. In a study of patients with type 2 diabetes, 28.2% of patients had problems with self-care (Saleh, et al., 2014). In many studies, it has been determined that the self-care force

average scores are middle and above middle levels (Altay & Avci, 2009; Gharaibeh, Gajewski, Al-smadi, & Boyle, 2016; Istek & Karakurt, 2016; Mollaoglu, Fertelli, & Tuncay, 2006; Ugurlu, Bolat, & Erdem, 2010). In this study, it is thought that patients' dietary compliance, regular attendance, and blood glucose measurement may have an effect on this outcome. In patients with type 2 diabetes, it is necessary to conduct studies that examine the effects of these variables on self-care status.

It was determined that there was a statistically significant difference between the mean AIS scores of the patients with type 2 diabetes according to gender. Similar to the findings of this study, it is stated that there is a significant difference between the average of the AIS scores in the study performed by Sireci and Yilmaz Karabulutlu (2012) on patients with type 2 diabetes according to gender. In some studies conducted differently (Binay & Asti, 2015; Uchmanowicz et al., 2016; Zalewska et al., 2007). It was found that the difference between gender variables and mean scores of acceptance of the disease was not significant. In this study, it was determined that the average of the males were higher. It can be thought that the reason for this is that women are more dependent than men, their responsibilities are higher, and their cultural characteristics are specific to the locality they live in.

It is seen that the difference between the AIS point averages according to the marital status of the patients in the scope of the research is significant. Single / widow / divorced people were found to have a higher average of the AIS scores than those who were married. There are no statistically significant differences between the mean scores of acceptance of illness according to marital status in some studies, which are different from this research bulletin (Nowicki et al., 2015; Sireci & Karabulutlu, 2012). The greater responsibility of married individuals may have influenced this outcome.

It was found that the difference between the average of the AIS scores was significant in terms of educational status of the patients with type 2 diabetes participated in the study.

It was determined that those who graduated from junior high school / high school had a higher average of the AIS scores than the other groups and the lowest of the non-literate AIS scores. The low education level of patients increases the risk of type 2 diabetes by 41% (Skyler et al., 2016). Religioni et al. (2015) also found that the average of the AIS scores of the secondary school / high school graduates was the highest in this study, similar to the findings of this research, and that the primary graduates of the study conducted by Kurpas et al. (2016) (Kurpas et al., 2013; Religioni et al., 2015). The low number of university graduates in our research may have influenced this outcome.

Individuals' unemployment increases the risk of type 2 diabetes by up to 31% (Skyler et al., 2016). The difference between the average of the AIS scores was found to be significant according to the study cases of type 2 diabetic patients included in the survey. In a study conducted similar to this research bulletin, it was noted that the difference between the mean scores of acceptance of patients according to the working status of the patients was significant (Sireci & Karabulutlu, 2012). It is thought that individuals work in a job affects the patients positively in accepting the illness. The ability of the working person to do his job better requires accepting his / her illness. Individuals who accept the disease will also increase their productivity.

It was determined that there was a significant difference between the mean of the AIS scores of the patients according to the duration of illness. It is seen that those who have 0-5 years of illness have the highest average of AIS points. Similar to this research bulletin, it is stated that the study done by Sireci and Yilmaz Karabulutlu (2012) also shows that the average of the AIS scores of patients with 3-5 years of disease is higher (Sireci & Karabulutlu, 2012). Unlike this research, Korkmaz Binay and Atabek Astı (2015) found that the duration of the illness did not affect the AIS score (Binay & Astı, 2015). It can be considered that complications that occur due to the long duration of the disease and diabetic complications affect the patient's appetite and the patient's acceptance.

It was determined that the difference between the patients with type 2 diabetes included in the study was statistically significant when comparing the mean of the AIS scores according to the hospitalization status due to diabetes. Similar to this research bulletin, Kurpas et al. (2013) reported that the difference between the mean AIS scores of patients with diabetes was significant (Kurpas et al., 2013). Patients who have not been admitted to the hospital because of diabetes are more likely to accept the disease. The fact that patients have to be hospitalized due to diabetes and that they have to comply with the limitations imposed by their illness may have affected patients negatively to accept the illness.

It was determined that there was a statistically significant difference between the mean of the AIS scores according to the presence of chronic disease except diabetes in patients with type 2 diabetes. Diabetic patients without chronic illnesses were found to have a higher mean of the AIS scores. Similarly, the study conducted by Istek and Karakurt (2016) showed that the difference between self-care power score averages in terms of patients having other illnesses other than diabetes is significant (Istek & Karakurt, 2016). Patients with chronic illness other than diabetes can be considered to have a burden of care, which increases complications and affects diabetes.

There was no statistically significant difference between the DSCS point average of the patients with type 2 diabetes included in the study in terms of gender. Similar studies on this research bulletin showed that similar results were obtained and gender did not affect self-care mean scores (Aksel & Yurtsever, 2010; Duzoz, Catalkaya, Derya, & Uysal, 2009; Gul, Ustundag, & Zengin, 2010; Istek & Karakurt, 2016; Karakurt, et al., 2013; Yanik & Erol, 2011). This may have been affected by regional and cultural differences in the area of patients' lives and self-care behaviors.

The difference between the marital status of the patients and the average scores of the DSCS was statistically significant. Those who were single / divorced / widowed were

found higher than the married ones. In some studies similar to this research bulletin, it was stated that the difference between self-care power score averages according to marital status is significant (Aksel & Yurtsever, 2010; İstek & Karakurt, 2016).

It was determined that there was not a significant difference between the average of DSCS scores and age groups among patients with type 2 diabetes. The results of many studies on diabetic individuals are similar to the findings of this study (Aksel & Yurtsever, 2010; Atasver & Sevil, 2015; Duzoz et al., 2009; Gul et al., 2010; İstek & Karakurt, 2016; Karakurt et al., 2013).

It has been suggested that education level plays an important role in the treatment of diabetes in diabetic patients (Zhou, Liao, Sun, & He, 2013). It was determined that the difference between the average scores of the DSCS according to the educational status of the patients included in the study was statistically significant. Those who graduated from university were found to have higher diabetes self-care points than the other groups. In some studies, there was a significant difference between the educational status and the self-care power score averages (Abraham, 2011; Eraydin & Sunal, 2016; İstek & Karakurt, 2016; Ugurlu et al., 2010). In a study with diabetic patients, it was noted that although the patients were aware of the importance of self-care in diabetes management, they had difficulty understanding and implementing self-care activities. The lack of education, the aging of the population and the knowledge and skills about diabetes have been expressed as the reason for this (Zhou et al., 2013). Increasing self-care behaviors are expected with increasing the education level.

There was no significant difference between the mean DSCS scores according to the working status of the patients with type 2 diabetes. Similar results were obtained for this research in some studies (Aksel & Yurtsever, 2010; Gul et al., 2010; Sireci & Karabulutlu, 2012). Individuals' working conditions may not have affected self-care behaviors because they are influenced by the

cultural characteristics and lifestyles of the place.

There was no significant difference between the mean duration of illness and the mean scores of the DSCS in patients with type 2 diabetes. In some similar studies, there was no significant difference between self-care and self-care averages (Karakurt et al., 2013; Sireci & Karabulutlu, 2012). In some studies, there was a statistically significant difference between self-care and illness durations (Abraham, 2011; İstek & Karakurt, 2016). The rate of complications for the disease stage residual disease is also increasing. Increased complications also affect adherence to self-care behaviors negatively.

It was determined that the difference between the mean DSCS scores of patients with type 2 diabetes according to previous hospitalization due to diabetes was not statistically significant. The results of the work of Aksel and Yurtsever (2010) are also parallel to the findings of this research (Aksel & Yurtsever, 2010). This result is an indication that compliance with self-care behaviors of previously hospitalized patients is insufficient.

There was no significant difference between the mean scores of the DSCS scores of the patients with type 2 diabetes included in the study according to the presence of chronic disease except diabetes. Similar to this research bulletin, the study conducted by Sireci and Yilmaz Karabulutlu (2012) indicated that the difference between the self-care force average scores in terms of chronic illnesses other than diabetes was not significant (Sireci & Karabulutlu, 2012). Unlike this research, it was reported that the difference between the Self-Care Force Scale scores and the self-care efficacy score scores was significantly higher in the study conducted by İstek and Karakurt (2016) than those who had no other disease except diabetes (İstek & Karakurt, 2016).

There was no significant relationship between the mean of the AIC score and the mean scores of DSCS patients with type 2 diabetes. Similar to this research finding, the study conducted by Sireci and Yilmaz Karabulutlu (2012) on patients with type 2

diabetes found that there was no significant association between patient acceptance and self-care self-efficacy (Sireci & Karabulutlu, 2012). Regular measurement of blood sugar, regular follow-up, follow-up diabetes, complications and diabetes-related training in patients with type 2 diabetes may have influenced this outcome.

Conclusion: The following results were obtained in this study with the aim of determining the acceptance and self-care status of patients with type 2 diabetes:

- Patients with type 2 diabetes had a mean score of 19.52 ± 7.47 , indicating that their acceptance of the disease was insufficient,
- The diabetic self-care scale score of patients with type 2 diabetes was 80.50 ± 12.61 , indicating that the self-care status was inadequate,
- It was determined that there was no significant relationship between acceptance of the disease and self-care.

According to these results;

- To improve the level of patient acceptance and self-care of Type 2 diabetic patients, people involved should be informed about the disease and its process,
- It is recommended that training programs be provided to the patients and their families in order to enable them to acquire knowledge and skills for treatment, to adapt to care and treatment, to better manage diabetes and to learn strategies to deal effectively with chronic diseases.

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