RESEARCH ARTICLE / *Araştırma Makalesi*

The Relationship Between Self-Efficacy and Psychosocial Adjustment of Individuals with Type 2 Diabetes

Tip 2 Diyabeti Olan Bireylerin Öz Yeterlilikleri ile Psikososyal Uyumları Arasındaki İlişki

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Abstract

Objective — To determine the relationship between self-efficacy and psychosocial adjustment of individuals with type 2 diabetes.

Materials and Methods — Descriptive, cross-sectional study was carried out between January 2020 and July 2020 with individuals with type 2 diabetes (N = 154). Data collection tools were identified as "Descriptive Characteristics Form", "General Self-Efficacy Scale", and "Psychosocial Adjustment to the Illness Scale – Self-Report". Data were analyzed using descriptive statistics, ANOVA, independent samples t test, Mann-Whitney U test, Kruskal-Wallis test, correlation and multiple linear regression analysis.

Results — The scores of participants on the self-efficacy and psychosocial adjustment scale are 29.42 ± 6.10 and 39.90 ± 13.94, respectively. It was determined that 33.8% of the individuals had good psychosocial adjustment, 49.4% had fair and 16.9% had poor psychosocial adjustment. There was no statistically significant relationship between self-efficacy and psychosocial adjustment scores ($p > 0.05$). It was observed that 13.1% of the change on the scores obtained with psychosocial adjustment was explained by the scores obtained in patients' age, gender, education level, marital status, economic status and working status.

Conclusion — Although the current findings do not present any relationship between psychosocial adjustment and self-efficacy in individuals with type 2 diabetes, it is emphasized in this study that it is important to support their self-efficacy and improve psychosocial adjustment so that individuals with type 2 diabetes can successfully carry out certain activities. The results may provide clues to help clinicians implement targeted strategies to support self-efficacy and psychosocial adjustment in individuals with type 2 diabetes.

Keywords — Psychosocial adjustment; Self-efficacy; Type 2 diabetes.

Öz

Amaç — *Bu araştırma tip 2 diyabeti olan bireylerin öz yeterlilikleri ile psikososyal uyumları arasındaki ilişkiyi belirlemek amacıyla yapıldı.*

Gereç ve Yöntemler — *Tanımlayıcı, kesitsel tipteki araştırma Ocak 2020- Temmuz 2020 tarihleri arasında tip 2 diyabetli bireyler (N=154) ile gerçekleştirildi. Veri toplama araçları Tanıtıcı Bilgi Formu, Genel Öz Yeterlik Ölçeği ve Hastalığa Psikosoyal Uyum-Öz Bildirim Ölçeği olarak belirlendi. Veriler tanımlayıcı istatistikler, ANOVA, Mann-Whitney U, Kruskal-Wallis ve bağımsız gruplarda t testleri ile korelasyon ve çoklu doğrusal regresyon analizleri kullanılarak değerlendirildi.*

Bulgular — *Katılımcıların öz yeterlilik ve psikososyal uyum ölçeğinden aldıkları puanlar sırasıyla 29.42±6.10 ve 39.90±13.94'dir. Bireylerin %33.8'inin iyi, %49.4'ünün orta ve %16.9'unun ise kötü psikososyal uyuma sahip olduğu belirlendi. Öz yeterlilik ve psikososyal uyum puanları arasında istatistiksel açıdan önemli düzeyde bir ilişki saptanmadı ($p>0.05$). Psikososyal uyum ile elde edilen skorlar üzerindeki değişimin %13.1'inin hastaların yaş, cinsiyet, eğitim düzeyi, medeni durum, ekonomik durum ve çalışma durumlarında elde edilen puanlar ile açıklandığı görüldü.*

Sonuç — *Her ne kadar mevcut bulgular tip 2 diyabetli bireylerde psikososyal uyum ile özyeterlilik arasında herhangi bir ilişki sunmasa da bu çalışmada tip 2 diyabetli bireylerin belirli faaliyetlerini başarıyla yürütebilmesi için öz yeterliliklerinin desteklenmesi ve psikososyal uyumlarının geliştirilmesinin önemli olduğu vurgulanmıştır. Sonuçlar, klinisyenlerin, tip 2 diyabetli bireylerde öz yeterliliği ve psikososyal uyumu desteklemek için hedeflenen stratejileri uygulamalarına yardımcı olacak ipuçları sağlayabilir.*

Anahtar Kelimeler — *psikososyal uyum; öz yeterlilik; tip 2 diyabet*

INTRODUCTION

Type 2 diabetes is a chronic condition that causes an increase in blood sugar levels. The International Diabetes Federation (IDF) estimated that 4.2 million adults will die from the disease itself and the complications it causes, which increases the risk of premature death, according to 2019 Diabetes Atlas data. This rate seems equivalent to death every eight seconds. Globally, 11.3% of deaths result from diabetes. Almost half of these deaths consist of people under the age of 60. In addition, according to the 2045 estimates, Turkey will rise to tenth place among the countries with the highest number of people with diabetes.[1] If diabetes is not properly managed, this can have serious consequences in the long run. Once diagnosed, people need to learn to manage their condition through diet and exercise, with the addition of pharmacological treatments.[2,3] People with diabetes are expected to have a sufficient level of self-efficacy to effectively deal with complex diabetes care and treatment. The concept of self-efficacy is derived from Bandura's social cognitive theory. It expresses the beliefs and judgment of the individual about his ability to perform his duties and functions. Self-efficacy means the belief that one can successfully run certain activities and expect good results to follow.[4] Previous studies has investigated effective factors and interventions in increasing the self-efficacy of diabetic patients.[3,5] Researchers have reported negative associations between poor self-efficacy and managing diabetes.[6] Similarly, negative relationships between self-efficacy and HbA1c have been reported among patients with type 2 diabetes.[7,8] For individuals with type 2 diabetes, diabetes knowledge and health literacy, along with other sociodemographic characteristics (age, gender, etc.) and health-related factors (duration of diabetes, etc.), are the main personal factors that affect diabetes management. The concepts of self-efficacy, depressive symptoms, and problem solving relate to a person's behavioral and cognitive processing and reflect behavioral factors within the scope of social cognitive theory.[4,7] The behavior of individuals with diabetes on self-care may be improved by increasing their self-efficacy levels.[2,3] From this point of view, it can be said that studies evaluating self-efficacy in individuals with type 2 diabetes are important.

It is known that individuals with diabetes are more likely to encounter psychosocial problems.[9,10] According to the findings of the recently published systematic review, anxiety, depression, stress and diabetes distress were defined as the main effective psychosocial factors in individuals with type 2 diabetes.[11] As with other chronic diseases, the ability to cope more effectively with psychosocial problems can be realized by adapting to the individual's disease. At this point, the individual's success in areas such as adjustment to health care, professional environment, home-family relations, sexual relations, extended family relationship, social environment and psychosocial oppression is also closely related to psychosocial adaptation to disease.[12,13] The literature emphasizing the importance of psychosocial adjustment in the context of chronic diseases is increasing day by day. For example, the idea that psychosocial adjustment should be determined as a treatment target in hemodialysis patients[14], liver transplant patients[15] and cancer patients[16] is emphasized. Psychosocial adjustment is recommended as an integrative model for adaptation to chronic conditions in diabetes, as in other chronic diseases.[17] In a study conducted on individuals with type 2 diabetes, a positive relationship was found between psychosocial adjustment and treatment adherence.[18] Although psychosocial adjustment is difficult to assess, every data in this area seems to be very important[13,17,19]. In addition, considering the limited number of studies evaluating psychosocial adjustment in individuals with type 2 diabetes,[13,19-21] it can be said that studies evaluating psychosocial adjustment in this population are needed. Individuals with diabetes in Turkey evaluating the structural relationship between self-efficacy with psychosocial adjustment have not been detected in any study. This research was carried out to determine the relationship between self-efficacy and psychosocial adjustment of individuals with type 2 diabetes.

MATERIALS and METHODS

Design, Sample and Participants

This study was done in descriptive, cross-sectional type. The study was carried out between January 2020 and July 2020 with individuals with type 2 diabetes who were treated at a university hospital in eastern Turkey. The population of the study consists of individuals with type 2 diabetes who were treated at the center in question between the dates of data collection. With the power analysis of the study, 0.05 error level, 0.5 effect size, ability to represent 0.95 universe were determined as 127. In the study, efforts were made to increase statistical strength and to reach the number of participants above the sample, taking into account that data forms could be completed incomplete and/or wrongly. As a result of the efforts, the study was completed with a total of 154 individuals with type 2 diabetes. The sample of the study was chosen from the universe by the simple random sampling method. The criteria to be included in the study were to be 18 or older, to take diabetes medications, and to read and write in Turkish. Those diagnosed with gestational diabetes, type 1 diabetes, cancer or psychiatric in accordance with the hospital records and the individual's own statements were excluded.

Variables and Measurement

Descriptive Characteristics Form: The form developed by the researcher contains a total of 9 questions asking the age, gender, marital status, education level, employment status, economic status, family structure, age of onset of the disease and the presence of other chronic diseases.

General Self-Efficacy Scale (GSES): Developed in 1979 by Jerusalem and Schwarzer, the scale was adapted to Turkish culture by Aypay (2010). The scale, translated into 28 languages including English, is known to be used by many researchers. The GSES is a self-report scale that tests the beliefs of different circles about their ability to cope with new and difficult situations. The scale consisting of 10 items is a 4-point Likert type. The minimum score obtained from the scale is 10, the maximum score is 40. The internal consistency of the scale was determined as α = 0.86 for all countries. High scores in the items indicate a high level of general self-efficacy.[22]

Psychosocial Adjustment of the Illness Scale – Self-Report (PAIS-SR): PAIS-SR, developed by Derogatis and Lopez, validity and reliability in Turkey were made by Adaylar. This scale measures the interaction of individuals with other individuals and institutions that make up the socio-cultural environment. PAIS-SR, which is a 4-point Likert type, consists of 7 sub-dimensions and 46 items. The subgroups are healthcare orientation, vocational environment, domestic environment, sexual relationships, extended family relationships, social environment, and psychological distress. The minimum score obtained from the scale is 0, the maximum score is 138. The cut-off scores and assessment of the PAIS-SR are as follows: Scores below 35 indicate good psychosocial adjustment; scores between 35 and 51 indicate fair psychosocial adjustment; scores between 51 and above indicate poor psychosocial adjustment.[12]

Data Collection

The data was collected by the researcher using the face-to-face interview technique with individuals with type 2 diabetes at the relevant Center following the institution's permission and ethical approval. At the beginning of the talks, participants were informed about the subject and purpose of the research and their verbal consent was obtained. It was also stated that participation in the research was voluntary and that no name information was requested in accordance with the confidentiality principle. Data collection was performed on weekdays and during working hours with each patient in approximately 15 minutes.

Data Analysis

The data of the research were evaluated and reported using SPSS 25.0. Averages, standard deviations, and percentages were used to describe the socio-demographic characteristics of the participants. In the study, Kolmogorov Smirnov test was used to examine whether the data was normally distributed. Independent samples t test and ANOVA tests were used in under normal distribution conditions, Mann-Whitney U test and Kruskal-Wallis test were used in conditions where normal distribution was not provided. Pearson correlation analysis was used to measure the relationships between self-efficacy and psychosocial adjustment. Finally, multiple linear regression analysis was performed to determine predictors of psychosocial adjustment. The results were considered statistically significant when $p < 0.05$.

Validity and Reliability

In this study, all scales had a Cronbach's Alpha above 0.70 which corresponds with an acceptable internal consistency (see Table 3).

RESULTS

Descriptive Characteristics

The distribution of the descriptive characteristics of the participants were given in Table 1. 36.4% of individuals were 56 years old or older (mean age is 59.92 ± 12.15; minimum 27, maximum 86), 62.3% were women, 90.9% were married, 83.1% lived with their spouse and children, 42.8% were determined to be primary school graduates, 89.6% of them did not work in any job, and 79.2% of them were at an intermediate level of economic level. It was determined that 35% of individuals with type-2 diabetes were diagnosed between 40 and 53 years old and 46.8% had another chronic disease (Table 1).

Table 1. Distribution of Individuals with Type 2 Diabetes by Descriptive Characteristics (N=154)

Descriptive Characteristics	n	%
Mean Age	59.92±12.15 year	(min-max=27-86)
Age		
27-55	48	31.2
56-65	50	32.5
66 and above	56	36.4
Gender		
Female	96	62.3
Male	58	37.7
Marital status		
Married	140	90.9
Single	14	9.1
People living with		
Alone	16	10.4
Parents	10	6.5
Spouse and child	128	83.1
Education level		
Illiterate	48	31.2
Literate	18	11.7
Primary education	66	42.8
High school	14	9.1
University	8	5.2
Working Status		
Working	16	10.4
Not working	138	89.6
How to perceive the economic situation		
High	20	13.0
Middle	122	79.2
Low	12	7.8
Age of Onset of Disease		
23-39	48	31.2
40-53	54	35.0
55 and above	52	33.8
Another Chronic Disease Presence		
Yes	72	46.8
No	82	53.2
Another Chronic Disease		
COPD	8	11.1
Hypertension	50	69.4
Chronic renal failure	12	61.7
Chronic liver disease	2	2.8
COPD: Chronic Obstructive Pulmonary Disease		

GSES and PAIS-SR Levels

GSES and PAIS-SR total mean scores of the participants were 29.42 ± 6.10 and 39.90 ± 13.94, respectively. It was determined that 33.8% of the individuals had good psychosocial adjustment, 49.4% had moderate and 16.9% had poor psychosocial adjustment (Table 2).

Table 2. GSES and PAIS-SR Scores (N=154)

	Mean (SD)	Min-Max
GSES	29.42 (6.10)	12-40
PAIS-SR		
Healthcare orientation	7.96 (1.99)	4-14
Vocational environment	5.44 (2.79)	0-12
Domestic environment	6.48 (4.66)	0-21
Sexual relationships	5.97 (3.23)	0-15
Extended family relationships	2.05 (2.01)	0-8
Social environment	4.19 (2.56)	0-9
Psychological distress	5.85 (3.60)	0-15
PAIS-SR total score	39.90 (13.94)	12-89
Status levels of psychosocial adjustment	n	%
Good adjustment (<35 points)	52	33.8
Fair adjustment (35–51 points)	76	49.4
Poor adjustment (>51 points)	26	16.9

GSES: General Self-Efficacy Scale; PAIS-SR: Psychosocial Adjustment of the Illness Scale – Self-Report; SD: Standard deviation; Min: Minimum; Max: Maximum

Univariate Analyses of the Factors Associated with PAIS-SR and GSES

Univariate analyzes of factors related to psychosocial adjustment and self-efficacy were presented in Table 3. It was found that the mean PAIS-SR scores of female participants were higher than that of men, and this difference was statistically significant (p = 0.001). It was found that the PAIS-SR scores of the single participants were higher than the married ones and this difference was statistically significant (p = 0.007). It was determined that the GSES mean rank of the illiterate participants was lower than those at the university education level, and this difference was statistically significant (p = 0.008). Similarly, it was determined that the PAIS-SR mean rank of the illiterate participants was higher than those at the high school level, and this difference was statistically significant (p = 0.001). It was found that the GSES mean rank of the participants with low economic status was higher than those with moderate economic status and the difference was statistically significant (p = 0.007). Finally, there was no statistically significant difference between the GSES and PAIS-SR scores of the participants according to their age, people they lived with, employment status and other chronic diseases (p> 0.05) (Table 3).

Relationship Between GSES and PAIS-SR Levels

There was no statistically significant relationship between GSES and PAIS-SR scores obtained from the participants (p> 0.05) (Table 4).

Multiple linear regression analysis was performed to explain the predictive effect of some descriptive features of individuals participating in the study on psychosocial adjustment. The model was found to be statistically significant in terms of the significance level corresponding to the F value (F = 4.842; p = 0.001). When the t coefficient and significance levels of the independent variables were examined; marital status (p = 0.007) and economic status (p = 0.031) appear to have a statistically significant effect on scores obtained by psychosocial adjustment. It was seen that 13.1% of the change on the scores obtained with psychosocial adjustment was explained by the scores obtained in patients' age, gender, education level, marital status, economic status and working status (Adjusted R^2=0.131) (p= 0.001) (Table 5).

DISCUSSION

This study has emerged as a result of current uncertainties regarding the self-efficacy and psychosocial adjustment of individuals with type 2 diabetes, who are not only a disease with organic findings, but also have psychiatric and psychosocial dimensions. Accordingly, this study was conducted to determine the relationship between the self-efficacy and psychosocial adjustment of individuals with type 2 diabetes.

Table 3. Univariate analyses of the factors associated with psychosocial adjustment and self-efficacy (N = 154).

Variables	**GSES**			**PAIS-SR**		
Age	**Mean (SD)**	**t/F**	**p**	**Mean (SD)**	**t/F**	**p**
27-55	29.83 (5.98)			42.74 (16.13)		
56-65	30.06 (6.17)	1.028	0.360	36.42 (14.06)	2.677	0.072
66 and above	28.50 (6.13)			40.56 (11.13)		
Gender						
Female	29.05 (6.01)	-0.953	0.342	42.85 (14.21)	3.500	0.001
Male	30.02 (6.25)			35.01 (12.10)		
Another Chronic Disease Presence						
Yes	28.85 (5.72)	-1.366	0.174	39.41 (14.03)	-0.513	0.609
No	30.21 (6.56)			40.58 (13.90)		
	Mean Rank	**MW/KW**	**p**	**Mean Rank**	**MW/KW**	**p**
Marital status						
Married	79.57	690.00	0.068	74.46	554.00	0.007
Single	56.79			107.93		
People living with						
Alone	78.75			94.00		
Parents	52.50	3.375	0.185	97.10	4.956	0.084
Spouse and child	79.30			73.91		
Education level						
Illiterate	55.46			90.83		
Literate	83.39			82.17		
Primary education	82.85	13.843	0.008	61.37	19.539	0.001
High school	75.90			48.90		
University	88.50			77.93		
Working status						
Working	67.63	946.00	0.349	59.75	820.00	0.093
Not working	78.64			79.56		
Economic situation						
High	92.10			68.90		
Middle	72.01	10.016	0.007	76.52	4.378	0.112
Low	109.00			101.83		

GSES: General Self-Efficacy Scale; PAIS-SR: Psychosocial Adjustment of the Illness Scale – Self-Report

Table 4. The Relationship between GSES and PAIS-SR Levels (N=154)

	α	1	2	3	4	5	6	7	8	9
GSES	0.86	-								
PAIS-SR Total Score	0.82	-0.014	-							
Healthcare orientation	0.79	0.098	0.402**	-						
Vocational environment	0.83	0.071	0.738**	0.226**	-					
Domestic environment	0.73	0.000	0.805**	0.247**	0.532**	-				
Sexual relationships	0.75	-0.116	0.695**	0.202*	0.444**	0.397**	-			
Extended family relationships	0.71	-0.146	0.547**	-0.083	0.279**	0.480**	0.284**	-		
Social environment	0.90	-0.064	0.529**	0.189*	0.392**	0.226**	0.407**	0.210**	-	
Psychological distress	0.77	0.011	0.684**	0.176*	0.429**	0.472**	0.345**	0.380**	0.113	-

* p<0.05; ** p<0.01.
GSES: General Self-Efficacy Scale; PAIS-SR: Psychosocial Adjustment of the Illness Scale – Self-Report

Table 5. Multiple Linear Regression Analysis Results for Predictors of Psychosocial Adjustment (N = 154)

Dependent Variable	Predictive Variables	ß	t	p	VIF	F	Model (p)	Adjusted R2	DW
PAIS-SR	Constant	25.156	2.206	0.029					
	Age	-0.128	-1.273	0.205	1.350				
	Gender	-4.563	-1.792	0.075	1.387				
	Education level	-1.289	-1.593	0.113	1.344	4.842	0.001	0.131	1.502
	Marital status	10.106	2.723	0.007	1.037				
	Economical situation	5.153	2.178	0.031	1.045				
	Working Status	5.580	1.433	0.154	1.427				

PAIS-SR: Psychosocial Adjustment of the Illness Scale – Self-Report.

Self-efficacy is often discussed in the chronic disease literature and is becoming increasingly important in diabetes care.[23] Since healthy behaviors have an impact on disease outcomes, approaches to supporting and maintaining diabetes self-efficacy are vital.[24] In the study, it was found that individuals at the university education level had higher self-efficacy than those at the illiterate level, while participants at the low level also had higher self-efficacy than those at the moderate economic level. Studies conducted on diabetic individuals in the literature report that the level of self-efficacy increases with the increase in education level.[10,25-27] No studies have been found in the literature comparing the economic status of individuals with type 2 diabetes and their self-efficacy. However, a study comparing their self-efficacy with their work status, which is closely related to the economic situation, was determined. In this study, it was found that individuals with type 2 diabetes who were unemployed had higher self-efficacy.[28] In light of these data, it can be argued that the findings from the existing literature support this study. The score of the participants on the self-efficacy scale was found to be 29.42±6.10, indicating a level above the intermediate level. This finding showed that individuals with diabetes maintain their belief in their ability to cope with difficult situations. It also suggests that effective strategies to increase self-efficacy in patient education in Turkey. In parallel with this finding, there were two studies in the literature that report high levels of self-efficacy in individuals with diabetes,

one at an international[29] and one at a national level. 2 In another study conducted in Turkey, it was determined that the individuals who reported adequate education about diabetes and who had regular health checks had higher self-efficacy levels.[30] However, other studies in individuals with type 2 diabetes have reported low self-efficacy.[23,31,32] Although the literature reveals contradictory data in this way, self-efficacy or belief that the person can manage his own health should continue to be an important target of healthcare providers, especially in chronic diseases such as diabetes.[33]

In the study, it was found that female individuals have a lower psychosocial adjustment than males, single individuals than married, and illiterate than high school education level. In a study conducted with individuals with type 2 diabetes in the literature, it was found that the psychosocial adjustment of single or divorced individuals was higher, while no difference was found between the variables of gender and educational status and psychosocial adjustment.[18] In another study involving the same population, it was found that psychosocial adjustment increased with the increase in educational status, but no difference was found between the gender variable and psychosocial adjustment.[13] As can be seen, the literature provides contradictory data on comparisons of demographic variables and psychosocial adjustment in individuals with type 2 diabetes. Therefore, although the data obtained from this study appeared to receive limited support from the literature, it can be said that it makes a different contribution to the limited literature on psychosocial adjustment of individuals with type 2 diabetes.

It was determined that 33.8% of individuals with diabetes had good psychosocial adjustment, 49.4% had fair adjustment and 16.9% had poor psychosocial adjustment. In a study examining psychosocial adjustment to the disease in individuals with diabetes, it was determined that 34.4% of individuals showed good adjustment, 29.5% moderate adjustment and 36.1% poor adjustment.[13] In the study conducted in individuals with type 1 diabetes in Turkey, it was reported that 99.2% of individuals' psychosocial adjustment with the disease was among the poor limits.[19] In this study, the average psychosocial adjustment score of individuals with type 2 diabetes was 29.42 ± 6.10. In the literature, in a study using the same scale in individuals with type 2 diabetes, this value was reported to be 67.78 ± 14.73. 34 In another study examining psychosocial adjustment to the disease in people with diabetes, the mean score of psychosocial adjustment of individuals was determined to be 61.01 ± 21.42. 21 In a study on the perception of disease and psychosocial adjustment of individuals with diabetes, the mean score of psychosocial adjustment obtained from individuals was 48.20 ± 23.91. 20 The value obtained from this research is lower than previous studies, but indicates a better psychosocial adjustment. This finding suggests that individuals with type 2 diabetes who participated in the study successfully overcame the psychosocial difficulties they faced. The findings of a qualitative study on the subject seem to coincide with this finding obtained from the research. In the study in question, in addition to the themes that express the obstacles faced by individuals with type 2 diabetes during the psychosocial adjustment process, they also revealed themes to deal with these obstacles.[9]

In this study, no relationship was found between self-efficacy levels and psychosocial adjustment levels obtained from individuals with type 2 diabetes. Although there are no studies examining the relationship between self-efficacy and psychosocial adjustment in individuals with diabetes in primary level, it is known that self-efficacy is a mediating variable in terms of psychosocial factors.[35] Previous cross-sectional studies reported a negative relationship between self-efficacy and diabetes distress in individuals with type 2 diabetes.[36,37] This finding from the study may seem surprising, but it has shown that self-sufficiency has no explanatory effect on psychosocial adjustment. This finding may have been influenced by the fact that the measurement tools used in the research that assess psychosocial adjustment and self-efficacy are in the form

of the self-report scale and that these instruments are not tools developed specifically for individuals with Type 2 diabetes. Although diabetes is considered among chronic diseases, it differs significantly from other chronic diseases in areas such as symptom, disease management and prognosis. For this reason, it is believed that in this population, especially in terms of effective evaluation of psychosocial adjustment, there is a need for measurement tools developed specifically for diabetes. In the study, it was determined that the marital status and economic status of the participants were the variables that predict psychosocial adjustment, together with these two variables, age, gender, educational level and working status of the individuals explained 13.1% of psychosocial adjustment. This finding appears to be consistent with the current litarature as it shows that the ability of individuals to adapt psychosocial to their disease involves more than one dynamic.

Limitations

In the scientific literature, this research is the first study to focus on the relationship between self-efficacy and psychosocial adjustment in individuals with type 2 diabetes. However, the study has its limitations that need to be addressed. Firstly, the generalizability of the findings obtained is low, as the study was conducted only in individuals with type 2 diabetes treated in one institution. If future studies aim to obtain stronger data in this population, they may plan multi-center studies. Secondly, although a valid measurement tool is used to evaluate psychosocial adjustment, a single measurement method (such as self-reporting) may not be sufficient to evaluate psychosocial adjustment. Therefore, combining at least two methods (quantitative and qualitative) may give more reliable results. Finally, these data are descriptive and the nature of the analyzes is correlative. Causality cannot be directly inferred. When the precursor property of the present data is considered, it may be appropriate for future studies to investigate this relationship with more advanced research designs.

CONCLUSIONS

The current findings suggest that individuals with type 2 diabetes have a higher-than-moderate level of self-efficacy, while their psychosocial adjustment is well within good range. Although there is no relationship between psychosocial adjustment and self-efficacy in this study, it is important to believe that individuals with type 2 diabetes can expect positive results in order to carry out certain activities successfully and that their psychosocial adjustments are important. The results may provide clues to help clinicians implement targeted strategies to support self-efficacy and psychosocial adjustment in individuals with type 2 diabetes.

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Conflicts of interest

No conflict of interest has been declared by the author.

Ethical Approval

Ethical approval was received from the İnönü University Health Sciences Non-Interventional Clinical Research Ethics Committee with the decision number 2019/60 on 17.12.2019 for conducting the research. In addition, written permissions were obtained from İnönü University Turgut Özal Medical Center. All participants who agreed to participate in the study were informed about the purpose, duration and scope of the study, and their verbal consent was obtained from the participants by explaining that the participation was voluntary. The study was carried out in accordance with the Helsinki Declaration Principles.

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