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Evaluation of self-care agency of patients with diabetic foot infection: A cross-sectional descriptive study

Diyabetik ayak enfeksiyonlu hastaların öz bakım gücünün değerlendirilmesi: Kesitsel tanımlayıcı bir çalışma

Selçuk Nazik [1], Hülya Nazik [2], Ahmet Rıza Şahin [1], Selma Ateş [1]

[1] Department of Infectious Disease and Clinical Microbiology, Kahramanmaraş Sütçü İmam University, Kahramanmaraş, Turkey
[2] Department of Dermatology, Kahramanmaraş Sütçü İmam University, Kahramanmaraş, Turkey

ORCID ID of the author(s)
SN: 0000-0003-0587-0104
HN: 0000-0003-4004-3964
ARŞ: 0000-0002-4415-076X
SA: 0000-0002-2515-8578

Corresponding author / Sorumlu yazar:
Selçuk Nazik
Address / Adres: Kahramanmaraş Sütçü İmam Üniversitesi, Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Anabilim Dalı, Kahramanmaraş, Türkiye
E-mail: dr.selcuknazik@hotmail.com

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Abstract

Aim: Diabetes mellitus is a chronic disease and causes a major complication such as diabetic foot infection. Accordingly, we think that the mobilization of patients will decrease and self-care will decrease. The aim of this study was to evaluate the self-care agency of patients with diabetic foot infection.

Methods: This is a questionnaire-based cross-sectional study to identify the self-care agency of 97 patients with diabetic foot infection. Data were collected by face to face interview technique, using a questionnaire the Self-care Agency Scale which is consists of a total of 35 questions.

Results: When the self-care agency of the participants was evaluated, it was observed that 30.9% (n = 30) of the cases were low, 58.8% (n = 57) were moderate, and 10.3% (n = 10) were high. There was a statistically significant positive correlation between amputation time and self-care agency total score (r = 0.514, p = 0.002).

Conclusion: As a result, diabetes and its complications are an important group of diseases that we frequently encounter. We think that self-care will be better with education to be given to patients and their relatives.

Keywords: Diabetes, Diabetic foot infection, Self-care agency

Öz

Amaç: Diabetes mellitus kronik bir hastalıktır ve diyabetik ayak enfeksiyonu gibi önemli bir komplikasyona neden olur. Buna bağlı olarak hastaların mobilizasyonu azalacak ve öz bakımının düşeceğini düşünmekteyiz. Bu çalışmanın amacı diyabetik ayak enfeksiyonu olan hastaların öz bakım gücünün değerlendirmektir.

Yöntemler: Bu çalışma diyabetik ayak enfeksiyonu olan 97 hastanın öz bakım gücünü tanımlamak için yapılan anket temelli kesitsel tanımlayıcı bir araştırmadır. Veriler 35 sorudan oluşan öz bakım gücü ölçeği kullanılarak yüz yüze görüşme yöntemi ile toplanmıştır.

Bulgular: Katılımcıların öz bakım gücü değerlendirildiğinde olguların %30.9'u (n=30) düşük seviyede, %58.8'inin (n=57) orta seviyede, %10.3'ünün (n=10) ise yüksek seviyede olduğu gözlendi. Amputasyon süresi ile öz bakım gücü toplam skoru arasında pozitif yönde istatistiksel olarak anlamlı ilişki olduğu saptanmıştır (r=0.514, p=0.002).

Sonuç: Sonuç olarak diyabet ve diyabete bağlı komplikasyonlar sıkça karşılaştığımız önemli bir hastalık grubudur. Hastalara ve hasta yakınlarına verilecek eğitim ile öz bakımın daha iyi olacağı düşüncesindeyiz.

Anahtar kelimeler: Diyabet, Diyabetik ayak enfeksiyonu, Öz bakım gücü

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Introduction

Diabetes mellitus is a chronic disease caused by the hereditary and / or acquired deficiency in the production of insulin by the pancreas or by the ineffectiveness of the produced insulin. This causes a high level of glucose in the blood. As a result, different complications occur. These include diabetic retinopathy, diabetic nephropathy, cardiovascular disease, diabetic neuropathy, and diabetic foot infections [1,2].

Diabetic foot disease often leads to ulcers and limb amputation due to changes in blood vessels and nerves. It is one of the most costly complications of diabetes especially in societies with insufficient footwear. Diabetic foot infections are caused by both vascular and neurological disease processes. Diabetes is the most common cause of non-traumatic amputation of the lower extremity. To prevent this, foot examination of diabetic patients should also be performed [1].

It is estimated that approximately 150 million people worldwide have diabetes and this number can be doubled by 2025. The majority of this increase will occur in developing countries and will be due to population growth, ageing, unhealthy diets, obesity and sedentary lifestyles [1,2,5].

Diabetes; it is a chronic disease that is lifelong, directly related to individuals and their relatives of all ages, has a high economic burden due to irreversible and chronic damage, affects self-care activities and shortens the life span [2-5].

Self-care is that individuals do their part to protect their lives, health and well-being individually. The goal in self-care is to ensure that the individual has all responsibilities related to his / her health [6]. It is important to meet self-care needs in patients with chronic diseases such as diabetes. Most individuals who are diagnosed with diabetes have to monitor and implement self-care regulations at some stages of their lives [7,8]. 98% of diabetes care is self-care. In order to control the diseases of diabetes patients; adopt self-care activities such as appropriate diet, regular exercise, control of blood glucose, appropriate use of oral antidiabetics, recognition of the effects and side effects of insulin therapy, not to be used smoking and alcohol, prevention of complications of diabetes, adaptation to lifelong drug treatment [9-11].

The aim of this study was to evaluate the self-care agency scores of patients with diabetic foot infection.

Materials and methods

This is a questionnaire-based cross-sectional study to identify the self-care agency of patients with diabetic foot infection. Ethics committee approval was obtained for the study (14.02.2018; session 2018/04; decision no. 06). Informed consent was filled in the patients included in the study. A total of 97 patients with diabetic foot infection were included in the study.

Age, gender, educational status of the cases (not literate, primary school, secondary school and high school, university), marital status (married, single, widowed, divorced), income status (low, medium, high divided into three groups), working status (working, not working), number of individuals in the family, status and duration of amputation (No, <1, 1-6, 6-12, <12 months), mobilization status (Alone, device-supported, person- supported), additional disease status was recorded.

The data related to self-care agency scale were obtained by mutual interview method. The scale of self-care agency created by Kearney and Fleischer is a scale that aims to determine the self-care and strength of people. Scale validity and reliability study in healthy subjects in Turkey in 2004 by Nahcivan, in chronic diseases was made by Pınar 1995. Self-care agency scale can be found in appendix 1 as English and appendix 2 as Turkish [12-14].

In this scale, which consists of thirty-five items, the person prefers the expression of being engaged in the situation of self-care. The scale is a Likert type that measures attitudes and behaviors by using the changing response options. Each question of the scale is scored from zero to four points (does not define me at all = 0 points, does not define me very much = 1 point, I have no idea = 2 points, defines me a little = 3 points, defines me exactly = 4 points). The scale consists of a total of 35 statements and questions of 3, 6, 9, 13, 19, 22, 25, 26 and 31 are read in reverse and evaluated as negative. If the scale score is less than 82, it is low, 82-120 means moderate self, and higher than 120, which means high self-care power [15].

Statistical analysis

The data obtained from the study were statistically analyzed with SPSS v.17.0 package program (SPSS Inc., Chicago, Illinois, USA). Continuous data as mean, standard deviation; categorical data were expressed as number and percentage. For comparisons between groups; Chi-square (X^2) test was used for the evaluation of two independent groups, Student-t test was used for the evaluation of two non-categorical independent groups and Pearson correlation analysis was used for the evaluation of the correlation between the groups. Statistical significance was taken as $p < 0.05$.

Results

Ninety-seven patients were included in the study. 70.1% (n = 68) of the cases were male and 29.9% (n = 29) were female. The mean age of the patients was 57.3 ± 12.8 years (minimum-maximum: 26-84 years).

The self-care agency total score was 92.02 ± 22.5 (minimum-maximum: 37-130). When the self-care agency of the participants was evaluated, it was observed that 30.9% (n = 30) of the cases were low, 58.8% (n = 57) were moderate, and 10.3% (n = 10) were high. The relationship between the data of the participants and the self-care agency is presented in Table 1.

When the relationship between gender and self-care agency was evaluated, it was observed that 26.5% of the male patients were at low level, 61.8% at mid-level and 11.8% at high level. 41.4% of the female patients were at low level, 51.7% at middle level and 6.9% at high level. There was no statistically significant difference in male and female patients compared to males (p = 0.149).

When the education levels of the patients were evaluated, 13.4% (n = 13) were not literate, 56.7% (n = 55) were primary school, 18.6% (n = 18) were secondary school, 10.3% (n = 10) high school and 1% (n = 1) university. While 17.5% (n = 17) of the cases were able to work, 82.5% (n = 80) could not work. When the number of individuals in the family was

examined, all patients had at least one person. The number of individuals in the family was found to be 58.8% in 2-4, 37.1% in 5-7, and 4.1% in 8-10.

In 44% (n = 33) of the cases with diabetic foot infection, amputation occurred. 24.2% (n = 8) <1 month, 24.2% (n = 8) 1-6 months, 6.1% (n = 2) 6-12 months after amputation 45.5% was> 12 months.

The correlation between the data of the participants and the self-care agency score is presented in Table 2.

Table 1: The relationship between the data of the participants and the self-care agency

Features of the cases (n=97)	Self Care Agency Score n(%) Low 30 (30.9)	Moderate 57 (58.8)	High 10 (10.3)	p
Gender				
Male	18 (26.5)	42 (61.8)	8 (11.8)	0.149
Female	12 (41.4)	15 (51.7)	2 (6.9)	
Education Status				
Not literate	4 (30.8)	9 (69.2)	0 (0)	
Primary school	16 (29.1)	33 (60.0)	6 (10.9)	
Secondary school	6 (33.3)	8 (44.5)	4 (22.2)	0.556
High school	4 (40.0)	6 (60.0)	0 (0)	
University	0 (0)	1 (100)	0 (0)	
Income status				
Low	10 (34.5)	19 (65.5)	0 (0)	
Moderate	20 (32.3)	32 (51.6)	10 (16.1)	0.038
High	0 (0)	6 (100)	0 (0)	
Marital status				
Single	0 (0)	2 (100)	0 (0)	
Maried	26 (32.1)	45 (55.6)	10 (12.3)	
Widowed	2 (33.3)	4 (66.7)	0 (0)	0.694
Divorced	2 (25.0)	6 (75.0)	0 (0)	
Mobilization Status				
Alone	16 (28.1)	31 (54.4)	10 (17.5)	
Device supported	4 (50.0)	4 (50.0)	0 (0)	0.063
Person supported	10 (31.3)	22 (68.8)	0 (0)	
Number of individuals in the family				
2-4	18 (31.6)	33 (57.9)	6 (10.5)	
5-7	8 (22.2)	24 (66.7)	4 (11.1)	0.022
8-10	4 (100)	0 (0)	0 (0)	

Table 2: The correlation between the data of the participants and the self-care agency score.

	p*	r
Age	0.487	- 0.071
Education level	0.753	0.032
The number of individuals in the family	0.108	- 0.046
Amputation time	0.002	0.514

* Pearson correlation test was used. Statistical significance level was accepted as p <0.05.

Discussion

Diabetic foot infections are an important problem that is common and involves many departments at the same time. This disease leads to complicated skin soft tissue infection and osteomyelitis, leading to limb amputation [16]. This situation affects the lives of people in the long term and a decrease in self-care agency is observed.

The high self-care agency refers to the self-sufficiency of individuals to meet their needs without being dependent on anyone [17]. Only 10.3% of the cases in our study had high self-care agency.

When the studies performed due to diabetic foot infection, it was observed that there were similar data about the average age. The mean age of the study was 58.1 ± 12 years [18]. In another study, the average age of women was 62.3 years, the mean age of men was 56.4 years, and the average age of all patients was 59 years [19]. The age distribution in our study was consistent with the literature.

In the literature, there are different results in the studies evaluating the relationship between self-care agency and gender. In a study conducted by nursing homes by Altay and Avcı [20], it was determined that the self-care agency of men is higher than women (p = 0.246). In a study by Nazik et al. [21], it was evaluated the relationship between sex and self-care agency scores in a study of patients with Leprosy. The mean score was 83.5 ± 14.0 in males and 76.4 ± 17.7 in females. There was no statistically significant difference between self-care agency total score and gender (p = 0.278). In another study by Karakurt et al. [22], in patients with diabetes, self-care agency scores were higher in women (83.8 ± 21) than men (81.6 ± 18.3) (p = 0.589). In our study, although self-care agency score was higher in males, there was no statistically significant difference.

When the educational status and self-care agency scores were evaluated together, it was found that self-care agency score increased when the education level increased. In a study by Altay et al., there was a positive correlation between education level and self-care agency scores (p = 0.022) [20]. In the study by Karakurt et al. [22], it was observed that as the level of education increased, self-care agency scores increased but there was no significant difference between the groups (p = 0.552). However, In another study on diabetic patients conducted by Özçakar et al. [23], there was no significant relationship between education level and self-care agency scores (p = 0.865). In our study, no significant relationship was found between the educational level and the self-care agency score.

In the study by Muz and Eğlence [24], it was performed by patients with hemodialysis, it was found that the self-care agency score decreased as the duration of HD increased and it was statistically significant (p = 0.023). In another study conducted with type 1 diabetes mellitus patients, it was found that self-care agency decreased as the disease duration increased [22]. In contrast to the literature in our study, it was observed that the self-care agency score increased as the amputation duration increased. This condition was thought to be related to the acceptance of the disease.

Family support is an important factor in improving self-care. It is known that the number of individuals in the family also affects this situation. In a study, it was found that there was a positive relationship between the number of individuals in the family and the self-care agency scores (r = 0.302, p = 0.134) [21]. In our study, a negative correlation was found.

In a study evaluating the self-care agency score and economic status in diabetic patients, it was found that the economic status was not related to self-care agency score (p = 0.993) [23]. In another study, self-care agency score was found to be the highest in economic income in moderate (p <0.001) [22]. In another study conducted in patients with leprosy, there was no correlation between economic status and self-care agency scores (p = 0.340) [21]. Data obtained in our study were reported by Karakurt et al. [22] similar results were obtained.

Low number of samples of our study and the use of revised self-care agency scale were the limitations of our study.

In conclusion, diabetes and its complications are an important group of diseases that we frequently encounter. The self-care of the patients is reduced because of the mobilization of these patients, especially with the loss of limbs and with device support and / or person support. We think that self-care will be better with education to be given to patients and their relatives.

References

1. http://www.who.int/mediacentre/factsheets/fs138/en/ Last access date 21.10.2018.
2. Yılmaz C. Giriş. Yılmaz C, editor. Diyabet Hemşiresi El Kitabı. İzmir: Asya Tıp Yayıncılık; 2002. 1-12.
3. Elkin M. Laboratory Tests. In Elkin ME, Perry AG, Potter PA, editors. Nursing Interventions & Clinical Skills. 3th Edition. United States of America: Mosby, An Affiliate of Elsevier Science; 2004. p. 360-5.
4. Smeltzer SC, Bare B. Brunner & Suddarth's Textbook of Medical Surgical Nursing. 10th Edition, Philadelphia: Lippincott Williams &Wilkins A Wolters Kluwer Company; 2004. p.1149-203.
5. Masharani U, Karam JH. Diabetes Mellitus & Hypoglycemia. In Tierney LM, McPhee SJ, Papadakis MA, editors. Current Medical Diagnosis & Treatment. Adult Ambulatory & Inpatient Management. Fort-First Edition, NewYork: McGrow Hill Companies; 2002. p. 1203-38.
6. Fadıloğlu Ç. Diyabetin yönetimi ve hemşirelik. İçinde Yılmaz C, editor. Diyabet Hemşiresi El Kitabı. İzmir: Asya Tıp Yayıncılık; 2002. p. 74-120.
7. Balcı G. Özbakım gücü ve yaşam kalitesinin etkilendiği bazı durumlar ve hemşirenin rolü. Hacettepe Üniversitesi Hemşirelik Yüksekokulu Dergisi. 2003;10(2):69-76.
8. Catharine H, Johnston B, Lewis MA, Garg S. Self Efficacy impacts self-care and HbA1c in young adults with type 1 diabetes. Psychosomatic Medicine. 2002;64:43-51.
9. Toljama M, Hentinen M. Adherence to self-care and glycaemic control among people with insülin-dependent diabetes mellitus. Journal of Advanced Nursing. 2001;34(6):780-6.
10. Van den Arend IJM, Stolk RP, Ruttent GEHM, Schrijvers GJP. Education integrated into structured general practice care for type 2 diabetic patients results in sustained improvement of disease knowledge and self –care. British Diabetic Association. Diabetic Medicine. 2000;17:190-7.
11. Hosley JB, Molle-Mathews EA. Lippincott's Textbook for Clinical Medical Assisting. Philadelphia: Wolter Kluwer Company; 1999. p. 320-34.
12. Kearney BY, Fleischer BJ. Development of an instrument to measure exercise of self-care agency. Res Nurs Health. 1979;2:25-34.
13. Nahçivan NÖ. Turkish Language Equivalence of the Exercise of Self-Care Agency Scale. Western Journal of Nursing Research. 2004;26(7):813-24.
14. Pınar R. A new aspect of health-related research: quality of life, evaluation of reliability and validity of a quality of life survey in patients with chronic diseases. Hemşirelik Bülteni. 1995;9:85–95.
15. Yılmaz SD, Beji NK. Gebelikte öz bakım gücünün değerlendirilmesi. Genel Tıp Derg. 2010;20(4):137-42.
16. Kanatlı U. Diyabetik ayak enfeksiyonları. TOTBİD Dergisi. 2011;10(4):296-305.
17. Mohammadpour A, RahmatiSharghi N, Khosravan S, Alami A, Akhond M. The effect of a supportive educational intervention developed based on the Orem's self-care theory on the self-care ability of patients with myocardial infarction: a randomised controlled trial. J Clin Nurs. 2015;24(11-12):1686-92.
18. Bozkurt F, Tekin R, Çelen MK, Ayaz C. Diyabetik Ayak İnfeksiyonlarında Tedavi Yaklaşımı. Konuralp Tıp Dergisi. 2012;4(2):15-9.
19. Şenoğlu S, Karabela ŞN, Yaşar KK, Durdu B, Gedik H, Ersöz B, et al. Diyabetik Ayak Enfeksiyonlu Yirmi Yedi Olgunun Retrospektif Olarak Değerlendirilmesi. Med Bull Haseki. 2017;55:56-60.
20. Altay B, Avcı İA. Huzurevinde yaşayan yaşlılarda özbakım gücü ve yaşam doyumu arasındaki ilişki. Dicle Med J. 2009;36(4):275-82.
21. Nazik H, Gül FÇ, Gül FC, Nazik S, Okay RA, Mülayim MK, et al. Evaluation Of Self-Care Power In Leprosy Patients. Kocaeli Med J. 2018;7(1):77-82.
22. Karakurt P, Aşılar RH, Yıldırım A. Diyabetli hastaların öz bakım gücü ve algıladıkları sosyal desteğin değerlendirilmesi. ADÜ Tıp Fakültesi Dergisi. 2013;14(1):1–9.
23. Özçakar N, Mehtap KM, Kuruoğlu E. Diyabet hastalarının özbakım bilinci. Türk Aile Hek Derg. 2009;13(1):17-22.
24. Muz G, Eğlence R. Hemodiyaliz Uygulanan Hastalarda Öz Bakım Gücü ve Öz Yeterliliğin Değerlendirilmesi. Balikesir Saglik Bil Derg. 2013;2 (1):15-21.

Appendix 1: Self-Care Agency Scale

	1	2	3	4	5
1. If my health is concerned I can leave some of my habits					
2. I like myself					
3. I usually do not have enough energy to meet my needs for health.					
4. When I feel my health is getting worse, I know what to do.					
5. I'm proud to do what I need to stay healthy.					
6. I tend to neglect my personal needs.					
7. When I can't look at myself, I call for help.					
8. I like to start new projects.					
9. I mostly postpone doing things that I know will be useful to me.					
10. I take some precautions not to be ill.					
11. I try to make my health better.					
12. I feed balanced.					
13. I constantly complain about issues that bothers me and I do nothing more.					
14. I look for better protection methods to pay attention to health.					
15. I believe that my health will reach a very good level.					
16. I believe that I deserve all the efforts to preserve my health.					
17. I apply my decisions until the end.					
18. I understand how my body works.					
19. I rarely apply my personal decisions about my health.					
20. Mate with myself.					
21. I take care of myself.					
22. It is a coincidence that my health is better.					
23. I regularly rest and do body movements.					
24. I would like to know how various diseases occur and what kind of effects they have.					
25. Life is a pleasure.					
26. I cannot fulfill my duties within the family.					
27. I take responsibility for my own actions.					
28. As the years went by, I realized what was needed to be healthier.					
29. I know what kind of food I have to eat to stay healthy.					
30. I am interested in learning everything about my body's work.					
31. Sometimes, when I get sick, I don't care about my illnesses, and I expect it to pass.					
32. To look at myself, I try to get information.					
33. I feel that I am a valued member of my family.					
34. As I remember the history of my health check, I also know the history of my future health check.					
35. I understand myself and my needs quite well.					

1: It doesn't describe me at all, 2: It doesn't describe me much, 3: I have no idea, 4: It defines me a bit, 5: It defines me a lot

Appendix 2: Öz Bakım Gücü Ölçeği

	1	2	3	4	5
1.Eğer sağlığım söz konusu ise bazı alışkanlıklarımı memnuniyetle bırakabilirim					
2.Kendimi beğeniyorum					
3.Sağlığımla ilgili ihtiyaçlarımı istediğim gibi karşılamak için yeterli enerjiye genellikle sahip değilim.					
4.Sağlığımın kötüye gittiğini hissettiğim zaman, ne yapmam gerektiğini biliyorum.					
5.Sağlıklı kalmak için ihtiyacım olan şeyleri yapmaktan gurur duyarım.					
6.Kişisel ihtiyaçlarımı ihmal etmeye meyilliyim.					
7.Kendime bakamadığım zaman, yardım ararım.					
8.Yeni projelere başlamaktan hoşlanırım.					
9.Benim için yararlı olacağını bildiğim şeyleri yapmayı çoğunlukla ertelerim.					
10.Hasta olmamak için bazı önlemler alırım.					
11.Sağlığımın daha iyi olmasına çaba gösteririm.					
12.Dengeli beslenirim.					
13.Beni rahatsız eden konularda fazla bir şey yapmadan sürekli yakınırım.					
14.Sağlığıma dikkat etmek için daha iyi korunma yolları araştırırım.					
15.Sağlığımın çok iyi bir düzeye ulaşacağına inanıyorum.					
16.Sağlığımı korumak için yapılan çabaların tümünü hak ettiğime inanıyorum.					
17.Kararlarımı sonuna kadar uygularım.					
18.Vücudumun nasıl çalıştığını anlıyorum.					
19.Sağlığımla ilgili kişisel kararlarımı nadiren uygularım.					
20.Kendimle dostum.					
21.Kendime iyi bakarım.					
22.Sağlığımın daha iyi olması benim için tesadüfi bir durumdur.					
23.Düzenli olarak istirahat ederim ve beden hareketleri yaparım.					
24.Çeşitli hastalıkların nasıl meydana geldiğini ve ne çeşit etkileri olduğunu öğrenmek isterim.					
25.Yaşam bir zevktir.					
26.Aile içindeki görevlerimi yeterince yerine getiremiyorum.					
27.Kendi davranışlarımın sorumluluğunu üstlenirim.					
28.Yıllar geçtikçe, daha sağlıklı olmak için gereken şeylerin farkına vardım.					
29.Sağlıklı kalmak için ne çeşit yiyecekler yemem gerektiğini biliyorum.					
30.Vücudumun çalışması ile ilgili her şeyi öğrenmeye ilgi duyuyorum.					
31.Bazen hastalandığımda, rahatsızlıklarımı önemsemez ve geçmesini beklerim.					
32.Kendime bakmak için bilgilenmeye çalışırım.					
33.Ailemin değerli bir üyesi olduğumu hissediyorum.					
34.Son sağlık kontrolümün tarihini hatırladığım gibi, gelecek sağlık kontrolümün tarihini de biliyorum.					
35.Kendimi ve ihtiyaçlarımı oldukça iyi anlarım.					

1:Beni hiç tanımlamıyor, 2:Beni pek tanımlamıyor, 3:Fikrim yok, 4: Beni biraz tanımlıyor, 5:Beni çok tanımlıyor