

Relationship between fluid restriction compliance and trait mindfulness among patients receiving hemodialysis treatment

Fluid restriction and trait mindfulness

Canan Demirci
Department of Nursing, Akdagmadeni School of Health, Yozgat Bozok University, Yozgat, Turkey

Abstract

Aim: This study aimed to examine the relationship between fluid restriction compliance and the level of mindfulness in patients with HD.

Material and Methods: This cross-sectional and correlational study was conducted on 119 patients receiving HD therapy between January and July 2022. Data were collected via the "Patient identification form", the "Fluid control in hemodialysis patients scale (FCHPS)", and the "Mindfulness scale (MS)". Descriptive statistics and Spearman correlation analysis were used in the evaluation of the data.

Results: The median age of the patients was 62.0 (50-70) years in the study. The majority of them were married (84.9%) and 78.2% of them were living in the center of the district. The median amount of fluid withdrawn in the last session was 3000 (2300-4000) cc. while the median FCHPS score was 52.0 (48.0-56.0); the median MS score was 60.0 (52.0-68.0). There was a weak, positive correlation between FCHPS and MS scores ($r: 0.260; p=0.04$).

Discussion: Fluid management goal is to preserve fluid volume and electrolyte composition in the body. However, patients may face many symptoms caused by improper management. The results of this study showed that the patients had moderate fluid restriction compliance and level of mindfulness, and a weak positive correlation was found. In other words, as mindfulness level increases, fluid restriction compliance increases. Managing fluid-electrolyte balance and increasing the self-awareness of patients are core steps in HD treatment for health workers. Mindfulness-based interventions for improving mindfulness may be implemented in clinical practice for better fluid management.

Keywords

Chronic Renal Failure, Fluid Restriction, Hemodialysis, Mindfulness, Nursing

DOI: 10.4328/ACAM.21616 Received: 2023-01-24 Accepted: 2023-03-12 Published Online: 2023-03-29 Printed: 2023-06-01 Ann Clin Anal Med 2023;14(6):512-516

Corresponding Author: Canan Demirci, Department of Nursing, Akdagmadeni School of Health, Yozgat Bozok University, 66300, Yozgat, Turkey.

E-mail: canan.karadas@yobu.edu.tr P: +90 546 133 19 89

Corresponding Author ORCID ID: <https://orcid.org/0000-0002-3364-6276>

This study was approved by the Ethics Committee of Yozgat Bozok University (Date: 2021-03-10, No: 2017-KAEK-189_2021.03.10_04)

Introduction

Chronic renal failure is a significant health problem and its incidence is increasing worldwide [1]. Renal replacement therapies such as hemodialysis (HD), peritoneal dialysis, and kidney transplantation are used to treat end-stage renal failure, an irreversible process. Among these treatments, HD is the most commonly used life-prolonging treatment. HD therapy is a process in which substances that cannot be removed from the blood are transferred into the dialysis fluid through a semi-permeable membrane [2]. HD therapy includes two important steps: fluid and food restriction and the regular removal of waste metabolites from the blood by dialysis [3]. A successful HD therapy requires patients to comply with the prescribed drugs, dialysis regimen, and food and fluid restrictions [4]. Failure to comply causes an increase in HD-related complications and health expenses and may lead to a decrease in quality of life and survival [5,6]. Studies in the literature often report that patients have difficulty complying with fluid restrictions [7-9]. Chironda et al. (2017) stated that non-compliance with fluid restriction in patients receiving HD therapy varies between 10-74% [10]. Education level, gender, diet compliance and therapy might affect compliance with fluid restriction [3,9,11].

Non-compliance with fluid restriction can be tested by measuring the weight gain (interdialytic weight gain [IDWG]) between two dialysis sessions or indirectly with scales that evaluate the patient's compliance with fluid restriction [3]. IDWG is higher than it should be in most patients receiving HD therapy [7,10]. Clinical conditions such as fluid overload and life-threatening pulmonary edema may occur as a result of non-compliance with fluid restriction. Therefore, it is essential to evaluate the fluid compliance of HD patients and the factors affecting this compliance. In addition to patient training, it has been noted in the literature that complementary integrative approaches also improve patients' fluid compliance [12-15]. In studies on mindfulness, a mind-body practice included in complementary integrative approaches, HD patients reported improvements in their symptoms [12,15,16]. Mindfulness is a mind and body practice that involves focusing on one's immediate experiences and observing one's inner states. Nejad et al. (2018) reported improvement in anxiety, depression, and sleep disorder symptoms following a mindfulness intervention in their study [17]. In a study conducted by Adamoli et al. (2020), HD patients stated that their stress levels decreased and their quality of life and their compliance with fluid and diet restrictions increased with a mindfulness intervention [18]. A systematic review reported that there was a positive correlation between the predisposition to mindfulness and the development of positive health outcomes in patients receiving a mindfulness intervention [19]. For these reasons, the current levels of mindfulness of patients should be evaluated before practicing mindfulness-based interventions, and the relationship of this current level of mindfulness with expected health outcomes should be examined. In the literature, many mind-body approaches have been implemented to improve the symptoms of HD patients, and the potential positive effects of these practices have been reported [12,15-18]. On the other hand, no study has examined the state mindfulness of patients

and the compliance of dialysis patients with fluid and diet restrictions. This study thus aimed to examine the relationship between the compliance of HD patients with fluid restrictions and their level of mindfulness. Research questions aimed in the study were as follows:

1. What is the level of mindfulness in HD patients?
2. What is the level of fluid restriction compliance in HD patients?
3. Does the level of mindfulness affect fluid restriction compliance in HD patients?

Material and Methods

The research had a cross-sectional and correlational design. The research was carried out between January and July 2022 in three state HD centers in a city located in the middle center of Turkey. The population of the research consisted of 157 patients aged 18 and over, who had no cognitive disability preventing communication, and who received treatment in the HD unit. In the power analysis, it was found that a minimum of 115 patients should be included in the study with a confidence interval of 95% and a significance level of 5%. Eight patients were away and continued their treatment in another province; eight patients refused to participate in the study; seven patients had cognitive problems; five patients had hearing impairment and communication problems; three patients had language problems; seven patients withdrew from the study before the survey was completed. Therefore, a total of 119 patients were included in the study.

Research data collection tools: Within the scope of the research, the "Patient Identification Form", "Fluid Control in Hemodialysis Patients Scale (FCHPS)", and "Mindfulness Scale (MS)" were applied to the participants.

Patient Identification Form: This form, which was created by reviewing the studies in the literature, consists of a total of 13 questions regarding characteristics such as age, gender, height, weight, marital status, education level, income status, comorbid chronic diseases, time of starting HD, amount of IDWG, and frequency and duration of HD [6,10,14,16].

Fluid Control in Hemodialysis Patients Scale (FCHPS): The FCHPS was developed by Coşar and Pakyüz (2016) and consists of three subscales and 24 items that evaluate "knowledge, attitude, and behavior" [20]. The items are ranked on a three-point Likert-type scale ("agree" = 3 points; "unsure" = 2 points, and "disagree" = 1 point). Items 6, 7, 18, 19, 20, 21, 22, 23, and 24 are reverse-scored. The score obtainable from the scale ranges between 24 and 72. A high score indicates that patients have a high level of compliance with fluid control. The Cronbach alpha value of the scale was found to be 0.88. In the present study, the Cronbach alpha value of the FCHPS was 0.606.

Mindfulness Scale (MS): This scale was developed by Brown et al. (2003) and measures the general tendency of individuals to be aware of their immediate experiences in daily life [21]. The scale consists of 15 items that are ranked on a six-point Likert-type scale ("almost always", "often", "sometimes", "rarely", "quite rarely", "almost never"). High scores indicate high levels of mindfulness. The Turkish validity and reliability study of the scale was conducted by Özyesil et al. (2011) and the Cronbach

alpha value was found to be 0.80 [22]. In the present study, the Cronbach alpha value of the MS was 0.831.

Research data collection: Data collection forms were filled in face-to-face by reading out to the patients by the researcher to decrease contamination. Other Covid-19 precautions were taken by the researcher by keeping social distance and wearing masks.

Bias: Cross-sectional studies are known to be prone to selection bias depending on the study sample participation. Thus, for this study, the author aimed to recruit all patients attending HD units who met the inclusion and exclusion criteria. Another source of bias was the evaluation of findings. This bias was minimized by having an independent statistician for analyses of the study findings.

Research data analysis: The size of the study sample was larger than 50, thus, the normality distribution of the data was analyzed with the Kolmogorov-Smirnov test. Since the data did not fit the normal distribution, non-parametric tests were used for the analysis of the data. Descriptive statistics (median, interquartile range, and frequency) were used in the evaluation of the socio-demographic data. Spearman’s correlation analysis was performed to determine the relationship between the MS and MS and FCHPS scores. The p-value was taken as $p < 0.05$ in the study.

Ethical aspect of research: Ethical approval was obtained from the non-invasive clinical research board to conduct the study (Decision number: 2017-KAEK-189_2021.03.10_04). Institutional permissions were received from the City Provincial Directorate of Health in order to carry out the research. Informed consent was obtained from participating patients. Moreover, permission was received from the authors of the scales used in the study. All the principles of the Declaration of Helsinki were followed.

Ethical Approval

Ethics Committee approval for the study was obtained.

Results

Socio-demographic and Clinical Characteristics of the Participants

A total of 119 HD patients were included in the study. The median age of the patients participating in the study was 62.0 (50-70) years. Of the participants, 56.3% were male, more than half were primary school graduates (58%), the majority were married (84.9%). 78.2% of the participants were living in the center of the district. The median BMI of the patients in the study was 25.78 (22.65-30.12). While 32.7% of them were of a normal weight, 32.8% were overweight. 87.4% of the patients stated that they had at least one chronic disease other than CRF: hypertension was the most common, with 81.5%, while diabetes mellitus was the second most common, with 53.8%. The patients had been using 4 (3-6) drugs per day (Table 1).

In terms of the clinical characteristics of the patients, the patients had been diagnosed with end-stage renal disease for 7 (3-12) years and had been receiving HD therapy for 4 (2-8) years. Seven of these patients had been diagnosed with end-stage renal disease in the past year. 61.3% of the patients started to receive HD therapy at the same time as the diagnosis

of the end-stage failure. The median amount of fluid withdrawn in the last session was 3000 (2300-4000) cc. Furthermore, 37.0% of the patients reported that they complied with the diet for CRF “frequently”, 28.6% reported that they “always” did, while 11.8% reported that they “never” did (Table 2).

Scale Scores and Correlation

As shown in Table 3, the median FCHPS score was 52.0 (48.0-56.0); the median scores on the subscales were 19.0 (17-20) for knowledge, 24.0 (21.0-26.0) for behavior, and 10.0 (9.0-13.0) for attitude. It was seen that the level of compliance with fluid restriction of the patients was moderate. The median MS score was 60.0 (52.0-68.0), and the level of mindfulness of the patients was found to be moderate.

There was a weak, positive correlation between FCHPS and MS scores ($r: 0.260$; $p=0.04$). A weak, positive correlation was determined between the MS score and the scores on the knowledge ($r: 0.283$; $p=0.02$) and attitude ($r: 0.200$; $p=0.029$) subscales of the FCHPS, whereas there was no correlation with the score on the behavior subscale ($r: 0.087$; $p=0.347$) (Table 3).

Table 1. Socio-demographic characteristics of the participants (N=119).

Characteristics	n	%
Age (median+) (years)	62.0 (50.0-70.0)	
Gender		
Female	52	43.7
Male	67	56.3
Marital status		
Married	101	84.9
Single	18	15.1
Educational Level		
No literacy	20	16.8
Literacy	13	10.9
Primary	69	58.0
Secondary	13	10.9
University and higher	4	3.4
BMI* (median+) (m ² /kg)	25.78 (22.65-30.12)	
Low weight	6	5.0
Normal weight	44	37.0
Slightly fat	39	32.8
First degree obese	20	16.8
Second degree obese	5	4.2
Third degree obese	5	4.2
Presence of chronic condition		
Yes	104	87.4
No	15	12.6
Existing chronic disease**		
Diabetes Mellitus	64	53.8
Hypertension	97	81.5
COPD	11	9.2
Cardiovascular diseases	46	38.7
Others	24	20.2
Drug number (median+) (per day)	4.0 (3.0-6.0)	

+: Median (25. Quartile -75. Quartile); *BMI: Body mass index; **: Multiple choices; COPD: Chronic obstructive pulmonary disease.

Table 2. Chronic renal failure and hemodialysis characteristics of the participants (N=119).

Characteristics	n	%
CRF diagnosis time (median+) (years)	7.0 (3.0-12.0)	
HD time (median+) (years)	4.0 (2.0-8.0)	
Time difference between being diagnosed with CRF and starting HD		
Yes	44	37.0
No	75	63.0
HD frequency (weekly)		
2 days / 3 hours	1	0.8
2 days / 4 hours	18	15.1
3 days / 3 hours	2	1.7
3 days / 4 hours	96	80.7
4 days / 3 hours	2	1.7
Amount of fluid withdrawn in the last session (median+) (cc)	3000.0 (2300.0-4000.0)	
CRF dietary adherence		
Always	34	28.6
Often	44	37.0
Rarely	27	22.7
Never	14	11.8

CRF: Chronic Renal Failure; HD: Hemodialysis; +: Median (25. Quartile -75. Quartile)

Table 3. Correlation of fluid control in hemodialysis patients scale and mindfulness scale scores in hemodialysis patients (N=119).

Scales	MS+	r	p	
FCHPS+	52.0 (48.0-56.0)	0.260	0.004	
Knowledge	19.0 (17.0-20.0)	0.283	0.002	
Attitude	10.0 (9.0-13.0)	60.0 (52.0-68.0)	0.200	0.029
Behavior	24.0 (21.0-26.0)	0.087	0.347	

MS: Mindfulness Scale; FCHPS: Fluid Control in Hemodialysis Patients Scale; +: Median (25. Quartile -75. Quartile); r: Spearman correlation coefficient; p: Statistical significance between groups, p < 0.05

Discussion

The current research evaluated the relationship between fluid restriction compliance and the level of trait mindfulness in HD patients. The findings of the study showed that the patients’ levels of fluid restriction compliance and mindfulness were moderate. It was observed that there was a weak, positive correlation between the patients’ level of fluid restriction compliance and their mindfulness. Accordingly, it was concluded that patients’ fluid restriction compliance increased as their level of mindfulness increased. When the literature was examined, study author could not find any studies focusing on the relationship between trait mindfulness and fluid restriction compliance. It is possible that there is no study on this subject in the literature. Therefore, it is challenging to discuss the findings of the study in light of the literature. In studies found in the literature, these studies have focused on the relationship between mindfulness and anxiety and depression in HD patients, or the effects of mindfulness-based practices on stress, anxiety, and quality of life [23,24]. These studies emphasized that high levels of mindfulness or the use of mindfulness-based interventions are effective in reducing stress, anxiety and

depression, and in improving quality of life. Fluid restriction creates the most stress in HD and makes it difficult to comply with the treatment [11]. It was thought that mindfulness, which has been reported to have a stress-reducing effect, may have an effect on increasing the compliance of patients. With the increase in the level of mindfulness, the person can monitor their mood and attention while focusing on the immediate moment. Self-acceptance, part of mindfulness, can make it easier for people to accept the situation they are in and cope with this challenging situation. Thus, individuals can improve their self-management of their health. From this perspective, it is possible to increase the compliance of HD patients with fluid restriction by increasing their levels of mindfulness, or by applying interventions to promote the development of mindfulness.

When the correlation between the MS and the subscales of the FCHPS was examined positive correlation was found with the knowledge and attitude subscales. This correlation may explain the intention to comply with fluid restriction in patients with high levels of mindfulness. However, there was no statistically significant correlation between mindfulness and the behavior subscale of the FCHPS. This may be due to the presence of various sub-factors in the development of behavioral changes in HD patients. For example, considering the literacy status of the patients included in the study, it was seen that more than half of them had only a primary education level or below, and that some of them were illiterate. In addition, the onset of HD and the diagnosis of CRF were simultaneous in more than half of the patients, and only about one-third reported that they always complied with the diet for HD. The quantity of fluid withdrawn from the patients in the last session was found to be high. When all these findings were examined together, it was concluded that the compliance of patients with fluid restriction may have been adversely affected. Studies in the literature have reported that there is no correlation between low education level and fluid restriction compliance; however, being female, being single, complying with the diet, and having a low IDWG fluid level were reported to positively affect compliance with fluid restriction [3,9,11]. Ozkan ZK et al. (2019) stated that nurses and healthcare staff have already given information on fluid/salt restriction to HD patients in their study [9]. Therefore, patients have received high scores in information on fluid/salt restriction and statistical differences were not found. These findings support of the current study findings.

Strengths and limitations

This study has some limitations. As a cross-sectional study, it does not examine the cause-effect relationship. Thus, it is recommended to carry out longitudinal studies on this subject. Since the study sample consisted of patients receiving HD treatment in the center of the district, and the specific status of HD patients and the long course of treatment may affect variables, the results should only be generalized with care. Although the size of the sample was appropriate for this target population (n=119), the results of this study cannot be generalized to all HD patients in Turkey.

Conclusion

Management of fluid-electrolyte balance and increasing self-

awareness of HD patients are core steps in HD treatment. The results of this study found out that HD patients had moderate levels of trait mindfulness and fluid restriction compliance and that there was a weak, positive correlation between these parameters. Mindfulness may be effective in increasing the compliance of HD patients with fluid restriction. Although there are many factors influencing fluid restriction compliance, mindfulness could be an important part of nursing management for proper fluid restriction. However, further interventions and information are needed in order to change patients' behaviors to comply with fluid restriction. For this reason, it is recommended that future studies evaluate other factors that may affect the levels of mindfulness and compliance with fluid restriction in HD patients. It is also recommended that similar studies be performed in other cultures and populations focusing on different dimensions of compliance with fluid restriction and other factors possibly affecting this, such as seasonal changes.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

Funding: None

Conflict of interest

None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.

References

- Kovesdy CP. Epidemiology of chronic kidney disease: an update 2022. *Kidney Int Suppl.* 2022; 12(1):7-11.
- Wiliyanarti PF, Muhith A. Life experience of chronic kidney diseases undergoing hemodialysis therapy. *Nurse Line Journal.* 2019; 4(1):54-60.
- Günelay S, Taşkıran E, Mergen H. Hemodiyaliz hastalarında diyet ve sıvı kısıtlamasına uyumsuzluğunun değerlendirilmesi (Evaluation of dietary and fluid restriction non-adherence in patients on hemodialysis). *İst Bilim Üniv Florence Nightingale Tıp Derg/ Istanbul University of Science Florence Nightingale Medical Journal.* 2017; 3(1):9-14.
- Daniels GB, Robinson JR, Walker CA. Adherence to Treatment by African Americans Undergoing Hemodialysis. *Nephrol Nurs J.* 2018;45(6):561-8.
- Martins P, Marques EA, Leal DV, Ferreira A, Wilund KR, Viana JL. Association between physical activity and mortality in end-stage kidney disease: a systematic review of observational studies. *BMC Nephrol.* 2021; 22(1):1-11.
- Mukakarangwa MC, Chirona G, Bhengu B, Katende G. Adherence to hemodialysis and associated factors among end stage renal disease patients at selected nephrology units in Rwanda: A descriptive cross-sectional study. *Nurs Res and Pract.* 2018; DOI:10.1155/2018/4372716.
- Balim S, Pakyüz SÇ. Hemodiyaliz hastalarının sıvı kısıtlamasına uyumlarının değerlendirilmesi (Evaluation of Hemodialysis Patients' Compliance with Fluid Restriction). *Nefroloji Hemşireliği Derg/ Journal of Nephrology Nursing.* 2016; 11(1):34-42.
- Şahin CK, Pakyüz SÇ, Çaydam ÖD. Hemodiyaliz Tedavisi Alan Hastaların Sıvı Kısıtlamasına Uyumları ve Hasta Aktifliği Arasındaki İlişkinin Değerlendirilmesi (Evaluation the Relationship between Compliance of Fluid Restriction and Patient Activation in Patient Receiving Hemodialysis). *Adnan Menderes Üniversitesi Sağlık Bilimleri Fakültesi Derg/ Adnan Menderes University Faculty of Health Sciences Journal.* 2018; 2(3):126-37.
- Özkan ZK, Ünver S, Çetin B, Ecder T. Hemodiyaliz tedavisi alan hastaların sıvı kontrolüne yönelik uyumlarının belirlenmesi (Determining of Compliance of Patients Receiving Hemodialysis for Fluid Control). *Nefroloji Hemşireliği Derg/ Journal of Nephrology Nursing.* 2019; 14(1):10-6.
- Geldine CG, Bhengu B, Manwere A. Adherence of adult Chronic Kidney Disease patients with regard to their dialysis, medication, dietary and fluid restriction. *Res J Health Sci.* 2017; 5(1):3-17.
- Ishaq G, Rafique R. Cost and Benefits Analysis of Treatment Adherence in End-Stage Renal Disease Patients. *J Behav Sci.* 2021; 31(2):258-75.
- Howren MB, Kellerman QD, Hillis SL, Cventgros J, Lawton W, Christensen AJ.

Effect of a behavioral self-regulation intervention on patient adherence to fluid-intake restrictions in hemodialysis: a randomized controlled trial. *Ann Behav Med.* 2016; 50(2):167-76.

13. Moonaghi HK, Hasanzadeh F, Shamsoddini S, Emamimoghadam Z, Ebrahimzadeh S. A comparison of face to face and video-based education on attitude related to diet and fluids: Adherence in hemodialysis patients. *Iran J Nurs Midwifery Res.* 2012; 17(5):360.

14. Salimi Ezzat L, Hanifi N, Dinmohammadi M. Effect of telephone consultation and follow-up on treatment adherence and hemodialysis adequacy in hemodialysis patients. *J Maz Univ Med.* 2018; 27(157):157-70.

15. Xing L, Chen R, Diao Y, Qian J, You C, Jiang X. Do psychological interventions reduce depression in hemodialysis patients? A meta-analysis of randomized controlled trials following PRISMA. *Medicine.* 2016; 95(34): e4675-84.

16. Igarashi NS, Karam CH, Afonso RF, Carneiro FD, Lacerda SS, Santos BF, et al. The effects of a short-term meditation-based mindfulness protocol in patients receiving hemodialysis. *Psychol Health Med.* 2022; 27(6):1286-95.

17. Nejad MM, Shahgholian N, Samoei R. The effect of mindfulness program on general health of patients undergoing hemodialysis. *J Educ Health Promot.* 2018;7:1-6.

18. Adamoli AN, Razzera BN, Ranheiri MF, Colferai RN, Russell TA, Noto AR, et al. Mindfulness-based intervention performed during hemodialysis: An experience report. *Trends Psychol.* 2021; 29(2):320-40.

19. Tomlinson ER, Yousaf O, Vittersø AD, Jones L. Dispositional mindfulness and psychological health: A systematic review. *Mindfulness.* 2018; 9(1):23-43.

20. Albayrak Cosar A, Cinar Pakyuz S. Scale development study: The Fluid Control in Hemodialysis Patients. *Jpn J Nurs Sci.* 2016; 13(1):174-82.

21. Brown KW, Ryan RM. The benefits of being present: mindfulness and its role in psychological well-being. *J Pers Soc Psychol.* 2003; 84(4):822.

22. Özyeşil Z, Arslan C, Kesici Ş, Deniz ME. Bilinçli farkındalık ölçeği'ni Türkçeye uyarlama çalışması (Adaptation of the Mindful Attention Awareness Scale into Turkish). *Eğitim ve Bilim/Education and Science.* 2011; 36(160): 224-35.

23. Malini H, Forwaty E, Cleary M, Visentin D, Oktarina E, Lenggogeni DP. The Effect of Intradialytic Range of Motion Exercise on Dialysis Adequacy and Fatigue in Hemodialysis Patients. *J Nurs Res.* 2022; 30(4):e221.

24. Sohn BK, Oh YK, Choi J-S, Song J, Lim A, Lee JP, et al. Effectiveness of group cognitive behavioral therapy with mindfulness in end-stage renal disease hemodialysis patients. *Kidney Res Clin Pract.* 2018; 37(1):77.

How to cite this article:

Canan Demirci. Relationship between fluid restriction compliance and trait mindfulness among patients receiving hemodialysis treatment. *Ann Clin Anal Med* 2023;14(6):512-516

This study was approved by the Ethics Committee of Yozgat Bozok University (Date: 2021-03-10, No: 2017-KAEK-189_2021.03.10_04)