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The Effect of Motivational Interview on the Treatment Adherence of the Depression Patients

Depresyon Hastalarına Yapılan Motivasyonel Görüşmenin Tedavi Uyumuna Etkisi

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Abstract

Aim: Depression is one of the most common psychiatric disorders, and treatment non-adherence is one of the important problems that negatively affect treatment outcomes in the treatment of depression. The aim of this study is to determine the effect of motivational interview on the treatment adherence.

Material and Method: This study is a control group experimental research with pre-test and post-test repetitive measurements. The sampling of the study consists of 81 depressive patients, 40 experimental and 41 controls, who applied to the Psychiatry service/polyclinic of the Training and Research Hospital. The personal information form and The Morisky Medication Adherence Scale (MMAS) were used in data collection.

Results: As a result of the motivational interviews, the MMAS scores of the experimental group decreased to a significant level in the mid-test and post-test compared to the pre-test, and no significant difference was found in the mean scale scores of the control group without intervention (p>0.05).

Conclusion: It has been found that motivational interviews are an effective intervention to improve medication adherence in the patients with depression. Healthcare professionals can facilitate adherence with the medical treatment regimen in depressed patients through motivational interview practices.

Keywords: Depression, treatment adherence, motivational interview

Öz

Amaç: Majör depresyon en sık görülen psikiyatrik bozukluklardan biridir. Tedavi uyumsuzluğu depresyon tedavisini olumsuz etkileyen önemli bir sorundur. Bu çalışmanın amacı motivasyonel görüşmenin tedaviye uyum üzerindeki etkisini belirlemektir.

Gereç ve Yöntem: Bu çalışma, ön test ve son test tekrarlı ölçümlerin yapıldığı kontrol gruplu deneysel bir araştırmadır. Araştırmanın örneklemini bir Eğitim ve Araştırma Hastanesi Psikiyatri servis/polikliniğine başvuran 40 deney ve 41 kontrol olmak üzere 81 depresif hasta oluşturmaktadır. Veri toplamada kişisel bilgi formu ve Morisky İlaç Uyum Ölçeği (MMAS) kullanılmıştır.

Bulgular: Motivasyonel görüşmeler sonucunda deney grubunun MMAS puanlarının ara test ve son testte, ön teste göre anlamlı düzeyde düştüğü, müdahale yapılmayan kontrol grubunun ölçek puan ortalamalarında ise anlamlı bir fark bulunmadığı saptanmıştır (p>0,05).

Sonuç: Motivasyonel görüşmelerin depresyon hastalarında ilaç uyumunu artırmada etkili bir müdahale olduğu saptanmıştır. Sağlık profesyonelleri, motive edici görüşme uygulamaları ile depresif hastalarda tıbbi tedavi rejimine uyumu kolaylaştırabilir.

Anahtar Kelimeler: Depresyon, tedavi uyumu, motivasyonel görüşme

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INTRODUCTION

Treatment adherence requires regular visits, completing the treatment program, regular use of medications and following the recommended behavioral changes.[1] Although patients with depression pose a significant public health burden and have effective treatments, most patients do not receive adequate treatment, and non-adherence with the treatment regimen is observed due to skipping doses and early discontinuation of the treatment.[1,2] The treatment non-adherence is an important problem in the mental disorders. It is of great importance for healthcare professionals to know the attempts that can be taken to prevent treatment non-adherence that causes recurrent hospitalizations of the patients with mental disorders and negatively affects their quality of life.

The studies on the treatment non-adherence in psychiatric disorders have increased in the recent years. However, studies on what can be done to prevent the treatment non-adherence and solutions for it are very limited. For this reason, the World Health Organization (2003) recommends developing strategies that increase the treatment adherence.[3] To our knowledge, this is the first attempt to determine factors associated with treatment adherence under the WHO multidimensionally in chronic illness in primary care settings in Spain. This report that notifies "in developed countries, adherence among patients suffering chronic diseases averages only 50%".[3] Motivational interview is used to resolve the dilemma and help the person steer towards change. It has been observed that applying motivational interview even for a session before the discharge increases depressive outpatients' treatment adherence.[4]

Symptoms associated with depression (such as lack of motivation, low energy and fatigue, decreased problem-solving ability, decreased concentration, low self-esteem) pose challenges for initiating treatment and optimal participation in the therapeutic process. Also the increasing prevalence of depression in the population has increased the need for the treatment of depression and the development of treatment interventions. Empowering the patients in managing the illness during their stay in the clinic, and ensuring the medication adherence should be among the primary goals of healthcare professionals. In non-adherence with the treatment, the psychiatric nurses can facilitate the adherence to the medical treatment regimen thanks to the therapeutic relationship and the effective communication.

There are evidences that motivational interview is effective in increasing the medication adherence in psychiatric and chronic diseases.[5-7] However, studies evaluating the effect of motivational interviewing on depression have not been found in the national literature. The aim of this study is to evaluate the effect of motivational interview on the treatment adherence.

MATERIAL AND METHOD

The population of the experimental study consists of depressed patients who applied to a Training and Research Hospital Psychiatry service/outpatient clinics between 01.09.2019-01.03.2020. The sample size (G Power: confidence interval α=0.05, power of the test (1-β) 0.95, effect size dz=1.5169455) was calculated as a total of 26 patients, 13 patients in the experimental group and 13 patients in the control group.[8] The study was started with 87 patients (44 patients for the experiment group, 43 patients for the control group), 4 patients were excluded because they did not attend the regular controls, 1 patient was excluded because of city change, and 1 patient was also excluded because he did not participate in the mid-test. The current study was completed with 81 patients, including 40 patients for the experimental group and 41 patients for the control group. The randomization method was used to determine the patients in the experimental and control groups.

The criterias for volunteers to be included in the research can be listed as; being diagnosed with depression, taking medication for at least one month, answering "yes" to at least one item of the Morisky Medication Adherence Scale, being 18 years of age or older, being literate, speaking Turkish, being able to understand the study and give the informed consent. The patients with mental retardation at a level that could not communicate meaningfully, with hearing or speech disorders, who did not have enough education to evaluate the scale, and who had any diagnosis of depression, dementia and other cognitive disorders with psychotic features according to DSM V were excluded from the study.

Data Collection Tools

The Personal Information Form: The personal information form consists of questions about the socio-demographic characteristics of the patients participating in the study, information about their diseases, and the drugs they used.

The Morisky Medication Adherence Scale (MMAS): It was developed by Donald E. Morisky, and its validity study was conducted by Morisky, Gren and Levine in 1986.(9) The Turkish validity and reliability of the scale was made by Bahar in 2013.(8) The scale consists of four questions that measure treatment adherence and filled by the patients themselves. The questions can be answered as "yes/no". If the answers are "no" to all of the questions, the adherence is considered high, if one or two questions are answered "yes", the adherence is considered medium, and if three or four questions are answered "yes", the adherence is considered low. In Bahar's (2013)(8) study, the Cronbach alpha reliability coefficient was determined as 0.62. In this study, the Cronbach alpha reliability coefficient was found to be 0.65.

Data Analysis

IBM SPSS Statistics 22.0 (IBM Corp. Armong, New York, AB) program was used for data analysis. A value of $p<0.05$ was considered statistically significant. The descriptive analyzes

(percentage, arithmetic average, etc.) were used for the data obtained from the Personal Information Form. The Shapiro-Wilk test was used to test whether the data conformed to the normal distribution, the mean and standard deviation for the MMAS mean score, and the t-test/Mann Whitney U Test in independent groups to compare the mean scores of the experimental and control groups.

Ethical Statement

Ethics committee approval (Date: 17.07.2019, Decision no: 2019/255) were obtained in order to conduct the study. Before the data were collected, the participants were informed about the research and their written consents were obtained. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

Research Process

The patients constituting the sample of the study were directed to the researcher by the psychiatrist. In the first interview, individuals who were admitted to the psychiatry polyclinic or hospitalized in psychiatry services, and who met the research criteria were informed about the purpose and process of the study, and those who wanted to participate and continue the study signed the Informed Consent Form, and then the Personal Information Form and the MMAS were applied. In the first meeting, the motivational interview was made individually, the contact information of the patients was obtained and the date of the next interview was determined. All interviews were conducted face to face by the researcher, who received motivational interview training. The interviews were made in the interview room in the clinical section of the specified hospital.

Throughout the study, the experimental and control group patients continued to receive their routine treatment. A total of 6 motivational interviews were conducted with the patients in the experimental group, once a week throughout the six weeks, on the specified days. The patient was followed up by completing the MMAS at the first encounter, at the 6th week and at the 3rd month. During this time period, no intervention other than the routine treatments was applied to the control group.

Content of the Motivational Interview Process

It has been reported in the literature that more than half of the patients treated with a diagnosis of depression discontinued the treatment within three weeks (Demirkol & Tamam, 2016). Motivational interviews were determined as six weeks to ensure continuity in drug use. A program consisting of six interviews, in which motivational interviewing principles were used, was applied to increase adherence to treatment in individuals with a diagnosis of depression in the experimental group. In the first interview, patients' views on the disease and the treatment they used were evaluated. The second interview focused on understanding the symptoms of the disease, evaluating the benefits and side effects of the treatment, and identifying the factors that prevent regular drug use. In the third interview, the topics in the previous interview were reviewed, drug compliance problems were determined and the patients' thoughts on non-acceptance were focused on. In the fourth interview, ambivalent emotions were evaluated and it was aimed to encourage change. In the fifth interview, the aim is to support the development of adherence. The last interview focused on the willingness of the patients to continue their treatment and the continuation of compliance.

RESULTS

When the socio-demographic characteristics of the patients included in the study were examined (**Table 1**), it was seen that the majority of the patients (67.9%) were female. 32.1% of the patients were between the ages of 48-65, and the majority (42%) had primary school education. 66.7% of the patients were married and 55.6% of them had a medium income. All variables except gender were similar between the experimental and control groups (p>0.05).

Table 1: The Comparison of Experimental and Control Groups' Patients by Socio-demographic Characteristics

Characteristics		Groups				Total		Test and p Values
		Control		Experimental				
		n	%	n	%	n	%	
Gender	Female	33	80.5	22	55.0	55	67.9	X2=6.035
	Male	8	19.5	18	45.0	26	32.1	p=0.014
Age	18-27	6	14.6	9	22.5	15	18.5	X2=3.469 p=0.325
	28-37	9	22.0	13	32.5	22	27.2	
	38-47	12	29.3	6	15.0	18	22.2	
	48-65	14	34.1	12	30.0	26	32.1	
Educational Status	Literate	5	12.2	1	2.5	6	7.4	X2=5.714 p=0.126
	Primary School	20	48.8	14	35.0	34	42.0	
	Middle School	6	14.6	10	25.0	16	19.8	
	High School andAbove	10	24.4	15	37.5	25	30.9	
Marital Status	Married	29	70.7	25	62.5	54	66.7	X2=0.617 p=0.432
	Single/Widow	12	29.3	15	37.5	27	33.3	
Income Level	Equal to Expenses	19	46.3	26	65.0	45	55.6	X2=4.188 p=0.123
	Less Than Expenses	15	36.6	12	30.0	27	33.3	
	More Than Expenses	7	17.1	2	5.0	9	11.1	
Total		41	100.0	40	100.0	81	100.0	

More than half of the patients (58%) have been followed up with a diagnosis of depression for more than 1 year. 74.1% of the patients stated that they did not receive information about the drugs included in their psychiatric treatments. 67.9% of the patients stated that they changed the drug dose. When the reasons for changing the drug dose are examined, it was determined that the dose increased when the complaints increased (17.3%), the occurrence of side effects (17.3%), the reduction of dose when the complaints decreased (14.8%), the thought of being able to do without medication (12.3%), and the forgetfulness (6.2%) were observed. When the discontinuation of drug treatment is examined, it was found that 93.8% of them intermittently stopped their treatment. Among the reasons for the discontinuation of drug treatment, it was determined that the thought that I would do without medication (24.7%), the thought that the treatment did not work (18.5%), the forgetfulness (18.5%) and the fear of addiction (13.6%) were observed with high rates. There was no statistically significant difference between the experimental and control groups in terms of the illness and treatment characteristics, and the groups were similar (p>0.05) (**Table 2**).

In the post-test, it was determined that the mean MMAS scores of the patients in the experimental group compared to the control group (p<0.001, **Table 3**). **Table 4** shows the in-group comparison of the pre-test, mid-test and post-test MMAS mean scores of the experimental and control groups. It was seen that the mean MMAS scores of the experimental group decreased in the pre-test (2.68±0.75), in the mid-test (1.51±0.59), and in the post-test (0.29±0.46). In the comparison of the mean MMAS scores of the experimental group within the group, it was found that there was a significant decrease in the mid-test and the post-test compared to the pre-test (p<0.001). In the control group, as a result of the analysis, there was no significant difference in the mid-test and post-test compared to the pre-test (p>0.05).

Table 3: The Comparison of Experimental and Control Groups' Pre-test, Mid-test and Post-test Morisky's Questions-Self-Report Measure of Adherence Mean Scores between the Groups

		MMAS			
	Groups	**n**	**X ±SD**	**Test Value**	**Significance**
Pre-test	Experimental	41	2.68±0.75	t=-1.957	p=.054
	Control	40	2.97±0.57		
Mid-test	Experimental	41	1.51±0.59	t=-7.321	p=.001
	Control	40	2.55±0.67		
Post-test	Experimental	41	0.29±0.46	t=-19.590	p=.001
	Control	40	2.72±0.64		

MMAS: Morisky Medication Adherence Scale

Table 4: The In-group Comparison of Experimental and Control Groups' Pre-test, Mid-test and Post-test Morisky's Questions-Self-Report Measure of Adherence Mean Scores

	n	**X±SD**	**Test Value**	**Significance**
MMAS - Experimental Group				
Pre-test	41	2.68±0.75	F=394.41	p=.001
Mid-test	41	1.51±0.59		
Post-test	41	0.29±0.46		
MMAS - Control Group				
Pre-test	40	2.97±0.57	F=3.824	p=.058
Mid-test	40	2.55±0.67		
Post-test	40	2.72±0.64		

MMAS: Morisky Medication Adherence Scale

Table 2: The Comparison of Patients in the Experiment and Control Groups According to Disorder and Treatment Characteristics

Characteristics		**Groups**				**Total**		**Test and p Values**
		Control		**Experimental**				
		n	**%**	**n**	**%**	**n**	**%**	
Duration of Disorder	3 months -1 year	19	46.3	15	37.5	34	42.0	X2=0.650
	More than 1 year	22	53.7	25	62.5	47	58.0	p=0.420
Getting Information About the Medication	Yes	10	24.4	11	27.5	21	25.9	X2=0.102
	No	31	75.6	29	72.5	60	74.1	p=0.749
Number of Medications Used	1	6	14.6	6	15.0	12	14.8	X2=1.206 p=0.752
	2	27	65.9	28	70.0	55	67.9	
	3	6	14.6	3	7.5	9	11.1	
	4 and above	2	4.9	3	7.5	5	6.2	
Changing the Medication Dose	Yes	31	75.6	24	60.0	55	67.9	X2=2.264
	No	10	24.4	16	40.0	26	32.1	p=0.132
Reasons for Changing the Medication Dose	-I did not change the dose	10	24.4	16	40.0	26	32.1	X2=4.192 p=0.522
	-The increase in dose when the complaints increased	9	22.0	5	12.5	14	17.3	
	-The Reduction in dose when the complaints reduced	5	12.2	7	17.5	12	14.8	
	-Because of side effects	9	22.0	5	12.5	14	17.3	
	-The thought of being able to do without medication	5	12.2	5	12.5	10	12.3	
	-The forget fullness	3	7.3	2	5.0	5	6.2	
Giving Up the Medication	Yes	37	90.2	39	97.5	76	93.8	X2=1.841
	No	4	9.8	1	2.5	5	6.2	p=0.175
Reasons for Giving Up the Medication	-I did not give up	4	9.8	1	2.5	5	6.2	X2=7.502 p=0.379
	-Because of side effects	5	12.2	2	5.0	7	8.6	
	-The thought that the treatment did not work	9	22.0	6	15.0	15	18.5	
	-The thought of I would do without medication	9	22.0	11	27.5	20	24.7	
	-Because of Forgetfulness	5	12.2	10	25.0	15	18.5	
	-Fear of addiction	4	9.8	7	17.5	11	13.6	
	-Difficulty in medication supply	4	9.8	3	7.5	7	8.6	
	-The thought of recovery	1	2.4	0	0.0	1	1.2	
Total		41	100.0	40	100.0	81	100.0	

DISCUSSION

The treatment adherence is an important aspect of effective clinical management.[10] The treatment non-adherence may lead to deterioration in the mental health status of the individual, and the relapse of depression, as well as personal and social costs.[11,12] The most common adherence problems observed in patients with depression are skipping the doses and the early discontinuation of the treatment.[2] It has been reported in the studies that more than half of the patients treated with a diagnosis of depression discontinued the treatment within three weeks.[1,2] In one study, it was reported that more than 43% of patients did not comply with their long-term treatment.[13]

The insufficient knowledge about the treatment is among the factors related to non-adherence to the treatment in psychiatric illnesses. In the current study, 74.1% of the patients stated that they did not receive information about the drugs included in their psychiatric treatments. 67.9% of the patients reported that they changed the drug dose, 93.8% of them intermittently stopped their treatment. These findings suggest that the levels of treatment non-adherence may be related to the lack of information. Informing the patients is of great importance in preventing the dose changes and the withdrawal behaviors of the medication.

In one study, the majority of patients did not continue drug treatment; It has been reported that they discontinued the drug due to side effects, did not believe in the treatment, and thought that they did not benefit from the medical treatment.[14] In our study, when the reasons for changing the medication dose and the discontinuation of the medication were examined, it was found that the behaviors of believing that they could succeed without the drugs, thinking that the treatment was not working, being affected by side effects, the fear of addiction, and the forgetfulness were common. Due to the fact that depression requires long-term treatment, patients may think that they cannot improve or the treatment is not effective, and they may disrupt their medication adherence.

In our study, the forgetfulness was noted in the reasons why the patients gave up the treatment and changed the medication dose. In the study of Burra et al.[15] the practical problems (such as forgetting or a change in routine) were identified as the most frequently defined reasons for non-adherence. In the same study, it was found that the patients gave up the medication because they thought that the antidepressants were addictive. It was observed that our study findings were consistent with the literature.

Due to the fact that motivational interviews are designed to help patients resolve the indecision for change, this approach seems appropriate for improving the medication adherence.[16] Considering that the patients are faced with many ambivalent variables such as the treatment motivation, side effects, stigmatization, and poor treatment response, motivational interview may contribute to the treatment adherence. "Motivational pharmacotherapy", in which the antidepressant treatment is combined with the motivational interviews, is a counseling approach that can be used in all health conditions, even during the short medical visits, and it is also seen as an effective practice in increasing the treatment adherence.[17,18] Before the motivational interviews, it was determined that the treatment adherence levels of the patients in both the experimental and control groups were "low". Immediately after the motivational interview application, it was observed that the medication adherence of the depressive patients in the experimental group was moderate, and at the end of the 3-month follow-up, their medication adherence was high. However, there was no significant change in the patients in the control group over time, and it was determined that their treatment adherence was still low. In our study, it was found that motivational interviews are effective in improving the medication adherence.

In one study, it was reported that motivational interview is a promising intervention that can be applied in the clinical practice to improve the medication adherence among the adult patients with depression.[19] Zygmunt et al.[20] emphasized that the motivational interview technique is more effective than psycho education in increasing the psychotic patients' treatment adherence. In a meta-analysis study by Hettema et al.[17] it was determined that the motivational interviews increased the treatment adherence. It has been reported in the literature that the motivational interviews are effective in facilitating the illness management and can provide significant benefits for the psychiatric support services in the community.[21] The studies support the value of adding the motivational interviews to existing treatments in order to enhance the treatment adherence and improve the clinical outcomes. Our study results confirm this explanation.

Limitations

The most important limitation of the current study is that it is a mono-center and cross-sectional study. Planning studies that are multi-centered, with a wider sample group, and exclude cultural factors can provide more advanced results.

CONCLUSION

In this study, it has been observed that the practice of motivational interviews is effective in improving the medication adherence of the patients with depression. In line with the results obtained, it has been shown that the motivational interviews can be a solution to eliminate the non-adherence in depression treatment, and can support the recovery in depression by improving the adherence. It can be recommended that healthcare professionals improve their skills by receiving motivational interviewing training and standardize the application of motivational interviewing in patients with treatment non-compliance.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was carried out with the permission of Gaziantep Universty Ethic Committee. (Date: 17/07/2019 Decision No: 2019/255).

Informed Consent: All patients signed the free and informed consent form.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

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REFERENCES

1. Ervatan SÖ, Özel A, Türkçapar H, Atasoy, N. Depresif hastalarda tedaviye uyum: doğal izlem çalışması. Klinik Psikiyatri 2003;6:5-11.
2. Demirkol ME, Tamam L. Psikiyatrik bozukluklarda tedavi uyumu. Current Approaches in Psychiatry 2016;8(1):85-93.
3. World Health Organization. Adherence to long term therapies, Geneva: World Health Organization Publishing. WHO; 2003.
4. Ögel K. Motivasyonel görüşme tekniği. Turkiye Klinikleri J Psychiatry-Special Topics 2009;2:41-4.
5. Miller WR, Rollnick S. Meeting in the middle: motivational interviewing and self-determination theory. Int J Behav Nutr Phys Act 2012;9:25.
6. Zomahoun HTV, Guénette L, Grégoire JP et al. Effectiveness of motivational interviewing interventions on medication adherence in adults with chronic diseases: a systematic review and meta-analysis. Int J Epidemiol 2017;46(2):589-602.
7. Palacio A, Garay D, Langer B, Taylor J, Wood BA, Tamariz L. Motivational ınterviewing ımproves medication adherence: a systematic review and meta-analysis. J Gen Intern Med 2016;31(8):929-940.
8. Bahar G. İki Uçlu Bozukluk Tanısı Almış Hastalarda Morisky Uyum Ölçeği'nin Türkçe Geçerlilik Güvenilirlik Çalışması ve Duygudurum Düzenleyici Kullanan Hastaların Kan Düzeyi Ölçümleri ile Tedaviye Uyumları Arasındaki İlişkinin Belirlenmesi. Yüksek Lisans Tezi, Gaziantep Üniversitesi Sağlık Bilimleri Enstitüsü. Gaziantep; 2013.
9. Morisky DE, Green LW, Levine DM. Concurrent and predictive validity of a self-reported measure of medication adherence. Med Care 1986;24:67-74.
10. Sansone RA, Sansone LA. Antidepressant adherence. Are patients taking their medications? Innov. Clin Neurosci 2012;9(5-6):41-46.
11. Stein-Shvachman I, Karpas DS, Werner P. Depression treatment non-adherence and its psychosocial predictors: differences between young and older adults?. Aging Dis 2013;4(6):329-336. doi: 10.14336/AD.2013.0400329
12. Tay S. Compliance therapy: An intervention to improve inpatients' attitudes toward treatment. J Psychosoc Nurs Ment Health Serv 2007;45:29-37.
13. Martin-Vazquez MJ. Adherence to antidepressants: A review of the literatüre. Neuropsychiatry (London) 2016;6(5): 236-241.
14. Fernandez RS, Evans V, Griffiths RD, Mostacchi MS. Educational interventions for mental health consumers receiving psychotropic medication: areview of the evidence. IJMHN 2006;15:70-80.
15. Burra TA, Chen E, McIntyre RS, Grace SL, Blackmore ER, Stewart DE. Predictors of self-reported antidepressant adherence. Behav Med 2007;32(4):127-34.
16. Interian A, Martinez I, Rios LI, Krejci J, Guarnaccia PJ. Adaptation of a motivational interviewing intervention to improve antidepressant adherence among Latinos. Cultural Diversity & Ethnic Minority Psychol 2010;16(2):215-225.
17. Hettema J, Steele J, Miller WR. Motivational interviewing. Annu. Rev. Clin. Psychol 2005;1:91-111.
18. Rubak S, Sandboek A, Lauritzen T, Christensen B. Motivational interviewing: a systematic review and meta-analysis. BJGP 2005;55:305-312.
19. Fuangunyi FN. Increasing Medication Adherence Using MotivationalInterviewing in Patients with Depression. Graduate Collegethe University of Arizona, Degree of Doctor of Nursing Practice. Arizona; 2018.
20. Zygmunt A, Olfson M, Boyer CA, Mechanic D. Interventions to improve medication adherence in schizophrenia. Am J Psychiatry 2002;159:1653-1664.
21. Tan SC, Lee MW, Lim GT, Leong JJ, Lee C. Motivational ınterviewing approach used by a community mental health team. J Psychosoc Nurs Ment Health Serv 2015;53(12):28-37.