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Research Article

Effectiveness of Pharmaceutical Care about the Quality of Life in Patients with Depression

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Abstract

Depression is a disorder characterized by the predominance of anhedonia and empty. On account of being a disorder with high prevalence and being a major cause of disability, this study was proposed that aimed to evaluate the effectiveness of pharmaceutical care through the pharmacotherapeutic follow-up and its correlation with quality of life. The patients were followed for eight months through telephone contacts and presidential meetings. The pharmacist evaluated depressive symptoms, adherence, quality of life and the need for pharmaceutical intervention. The instruments used were: Dader method, PHQ - 9, Beck Anxiety Inventory, Morisky Test et al. and Quality of life - SF-36. The data were analyzed in Bioestat 5.0 software using the Wilcoxon test, comparing the depressive symptoms, anxiety and quality of life before and after the Pharmacotherapeutic follow-up; and Pearson Correlation to determine if there is a correlation between depressive symptoms and quality of life. It obtained a statistically significant reduction in depressive symptoms (p-value: <0.0001) and anxious (p-value: <0.0001). There was a statistically significant improvement (p <0.05) in quality of life, demonstrated in all dimensions of SF-36. By performing the correlation between depressive symptoms and quality of life, it was observed that as depressive symptoms decrease the quality of life improves [r Pearson) = 0.6911, p = 0.0007]. They were carried out several pharmaceutical interventions to increase adherence, reduce treatment, abandonment and provide health education to patients. These interventions were carried out in the form of oral communication between pharmacist-patient and pharmacist-patient-doctor. The Pharmaceutical Care was effective in reducing depressive and anxiety symptoms and improve the quality of life of patients with depression.

Introduction

Depression is a disorder characterized by the predominance of anhedonia and empty [1]. Although this is the most common and prevalent characteristic of depressive states, some patients do not report it. Many refer to mood disorders or affective disorders, symptoms of irritability, loss of interest or pleasure, inability to feel happiness, apathy, and difficulties in concentrating [2]. In addition to cognitive changes may occur pessimistic or suicidal thoughts, feeling of incapacity and guilt. Other symptoms that may be present include insomnia or hypersomnia, absence or increased appetite, a reduction of sexual activity, fatigue and other changes of the biological rhythms [3].

According to the World Health Organization (WHO) [4], by 2020 the second leading cause of incapacity for work in the world will be depression [3]. It is estimated that there are 121 million people suffering from depression, and from these, 17 million are Brazilians [4].

Pharmacists may play an important role in the primary care patients with depression by providing guidance and education in relation to the disorder and medicines, carry out the monitoring of compliance and carry out of the _ management of adverse reactions [5]. However, pharmacists still have some difficulty in developing these activities, especially when related to mental disorders [5,6]. In this context, this study was developed by two apprentices, pharmacy students, who proposed to carry out the pharmacotherapeutic follow-up of patients with depressive disorder.

In Rubio-Valera study et al. [7], the results demonstrated that a brief intervention in pharmacies or drugstores does not improve adherence and clinical symptoms of depression, reinforcing the need for pharmacotherapeutic follow-up over time. However, the intervention helped to improve the level of quality of life of the studied patients.

The quality of life as a health outcome was introduced from 1970, and relates to the advancement of medicine. This advance increased life expectancy, as previously lethal diseases became curable or having at least control of symptoms or delay in its natural course. Therefore, it has become of great

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importance, to have ways to measure how people live these years longer [8].

Some studies have shown that depressive symptoms are associated with a lower quality of life [8,9], being an important tool to detect and measure the level of commitment that depression imposes on the lives of affected.

Based on the above, the aim of this study was to evaluate the effectiveness of pharmacotherapeutic follow-up on the treatment of depression and quality of life of patients.

Methods

The study was performed at the Ambulatory of AlziraVelano Hospital- UNIFENAS, located in Vila Esperança - Alfenas / MG. Patients were recruited from both genders diagnosed with depression and who make use of antidepressant medications.

As inclusion criterion, medical psychiatrist made the referral of patients diagnosed with depression to pharmaceutical care service. Patients older than 18 years old were selected, both genders, living in the city and who had the first episode of depression or who already had presented several episodes, but were getting a new drug (insertion or replacement).Patients who were under 18 years old were excluded, residents in the countryside and those with evident cognitive compromise that would impair filling out the questionnaires.

We selected 20 patients with depression by convenience who answered the following instruments: Dader method, PHQ - 9, Beck Anxiety Inventory, Morisky Test et al. and the Quality of Life Questionnaire - SF-36. All instruments were filled with the assistance of the researcher.

The study began with an invitation made to the patient through a telephone call. In this first contact, the researcher performed the scheduling of the first home visit according to the availability of each patient. In a first visit the instruments mentioned above were applied, and after 1, 3 and 5 months of enrollment in the study, patients were followed by phone calls (distance monitoring), and 2, 4 and 7 months of inclusion were held personal visits. The PHQ - 9 and the Beck Anxiety Inventory were applied to all personal visits. The Morisky et al. test and the quality of life questionnaire SF-36 were applied in the first and last visit. The monitoring had a total duration of eight months.

The AF method was the Dader that justifies the Pharmacotherapeutics history of the patient, analyzing the health problems it presents and what are the drugs used. In addition, it evaluates the patient's situation state by a certain date so that you can identify and solve possible Problems Related to the Medicines (PRM) presented by patients and Clinical Results Associated with Negative Medicines (MRI) [10].

The pharmaceutical interventions to solve the PRM / MRI were performed in the oral form of communication and / or written, between pharmacist-patient and pharmacist-patient-physician. All the interventions were recorded and their result was checked later.

Research tools

Pharmacotherapy follow-up: The Dáder Method of pharmacotherapeutic follow-up was developed by "Grupo de Investigación en Atención Farmacéutica de la Universidad de Granada." This method develops a pharmacotherapeutic history based on information about Health problems and the patient's pharmacotherapy. From the information contained in the history, the pharmacist draws up the patient's situational state, which lets them see the "big picture" about their health and their treatment at different times, and evaluates the results of pharmacotherapy. As a result of the evaluation and analysis of the situational states, the pharmacist sets up a plan of action with the patient, where they will register all pharmaceutical interventions, with the goal of enhancing or preserving the health of the patient. Although the Dáder Method establishes basic rules for performing PF, this method is adaptable to many environments.

The Dáder Method was applied by students. The training of students was provided by the main researcher who has extensive experience in applying the method. The provided training to students lasted 45 hours.

PHQ-9 Depression questionnaire: The PHQ-9 instrument (Patient Health Questionnaire), an adaptation of the PRIME-MD, is used in diagnosis for mental disorders, applied in primary care to health [11]. It makes feasible the tracking signs and symptoms of current major depression and the severity levels of classification, this past two weeks. The PHQ-9 is composed by 9 items that each presents a certain corresponding severity index: 0 = "no time", 1 = "several days", 2 = "more than half the days = 3" almost every day " [12]. The sum of items can range from zero score to 27, where it is considered a positive indicator signs and symptoms of major depression greater than or equal to 10 [13,14].

According to the points obtained on the scale, can be obtained the following classification: a) Absence of Indicators to Light Major Depression: score from zero to five; b) Indicators to Light Major Depression: score from six to nine; c) Indicators to moderate Major Depression: score 10-14; d) Indicators to moderate-severe Major Depression: score 15-19; e) Indicators to severe Major Depression: scores higher than 20.

Beck Anxiety Scale (BAI): This scale aims to evaluate the accuracy of anxiety symptoms in patients with depression. It consists of 21 items that describe the common cases of anxiety. The sum of these can range from zero to 63. The instrument presents the following cohort points for different intensities of anxiety symptoms [15]: a) Minimum: from zero to 11; b) Light: from 12 to 19; c) Moderate: from 20 to 35; d) Severe from: 36-63.

Adherence evaluation of medicine user to the treatment: The method Morisky et al. [16] evaluates the medication therapy adherence, confirming if there is no improvement in levels of adherence. This instrument consists of four questions that can be answered by "yes" or "no", this way you can determine if the interrupting of treatment was due to forgetfulness, carelessness, improves in the general condition of the patient or caused by adverse reactions of the medicine.

The questions were elaborated in a way that minimized the deviations of the answers predominantly positive. There are three levels of adherence according to the Morisky method et al.: a) high adherence level: number of "yes" answers is zero; b) median adherence level: one or two "yes"; c) low adherence level: three or four "yes".

Quality of Life Questionnaire - SF-36: The SF-36 (The Magical Outcomes Study 36 - item Short Form Health Survey) [17] is a generic questionnaire, not too long, and aims to evaluate the term of quality of life ample and completely. It consists of 36 items which determines the essential concepts of health for functionality and well being of every basic human value. The questionnaire is divided into eight domains.

Statistical analysis

The data were analyzed descriptively through summary measures such as percentage, average and standard deviation. To compare the data before and after the action pharmacotherapeutic follow-up and scales of PHQ-9, the Beck Anxiety Inventory and SF-36 were used Wilcoxon test. To evaluate the correlation between depressive symptoms and quality of life, we used the Pearson's correlation test. The significance level was 5%, and the data were analyzed using the Bioestat 5.0 software.

Ethical aspects

Before beginning any procedure, the present study was approved by the Ethics Committee in Research of Federal University of Alfenas (UNIFAL) in the number of opinions: 183 331, CAAE: 11178012.7.0000.5142. Each patient was previously written informed of the voluntary nature of their participation in the study, the freedom to stop it at any time, without losing monitoring and medical treatment provided by Vila Esperança Ambulatory; the procedures to be performed, the risks involved and the use of confidential information that would be collected. People who agreed to participate in the study signed a Free and Informed Consent.

Results

It included 20 patients of both genders, of which 98% were female and 2% were male, with an average age of 45.5 years (standard deviation: 11,89). Of these, 15 were married, one single, two widowed and 2 divorced. With respect to education 4 patients had in completed elementary school, 2 completed elementary school, 3 in completed high school, 8 completed high school, 1 in completes higher education and 2 completed higher education. With respect to religion, 10 patients were evangelicals, 9 Catholics and 1 spiritist. The first episode of depression reported by patients ranged from 1 year for 30 years (SD: 7.08).

The results obtained by comparing two measurements (before and after the Pharmacotherapeuticfollow-up) of PHQ-9 and Beck Anxiety Inventory showed statistically significant reduction of depressive symptoms (p-value: <0.0001) and anxiety (p-value: <0.0001). By observing the depression scores obtained by PHQ-9 before and after the FTS for each patient, it was observed that almost all patients had a reduction in depression scores (Figure 1).

Before starting the SFT 15% of patients had an absence of depressive symptoms, 20% light depression, 30% moderate depression, 20% moderately severe depression and 15% severe depression. At the end of the SFT 60% of patients had an absence of depressive symptoms, 20% light depression and 20% moderate depression (Figure 2).

The anxiety symptoms were analyzed using the Beck Anxiety Inventory (BAI) and may verify that the average intensity of anxiety symptoms of patients on the first visit was 23.95 points classified as moderate anxiety and last visit to medium intensity of anxiety symptoms was 8.90 points classified as minimum / normal. (Figure 3) shows the reduction of anxiety scores for all patients.

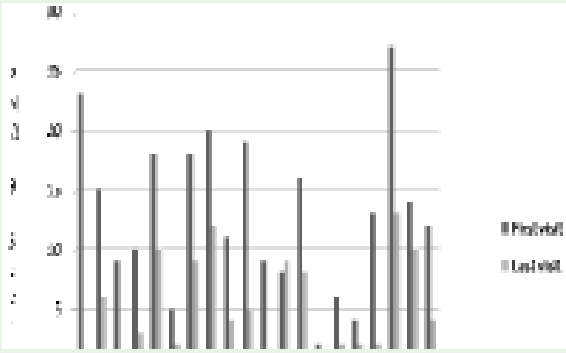

Figure 1: Score of depression presented by patients before and after the Pharmacotherapeutic follow-up.

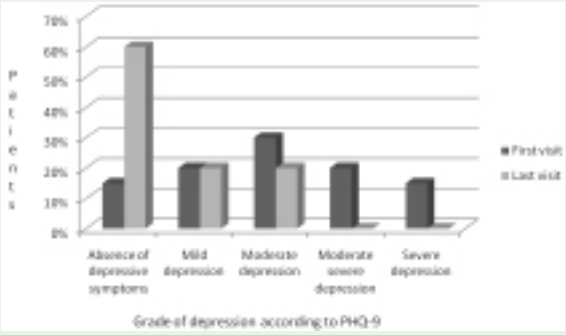

Figure 2: Distribution of the level of depression before and after the Pharmacotherapeutic follow-up.

Regarding adherence to treatment, we observed an improvement of the same in accordance with the Morisky Test et al. as can be seen in (Figure 4).

Through the SF-36 were evaluated dimensions of functional capacity, physical aspects, pain, general state of health, vitality, emotional aspects and mental health. By comparing the results of the dimensions measured before and after the Pharmacotherapeuticfollow-up, there was an increase in score (increased quality of life) statistically significant (p <0.0001) (Figure 5).

The domains of limitations for physical aspects, pain, vitality, social aspects, limitations by emotional problems and mental health presented on the first visit significantly lower scores 50.0 points (Figure 5). After eight months of SFT scores of all domains increased by an average 27.0 points (Figure 5). And in the domain of general health status (Figure 5), the average presented after Pharmacotherapeuticfollow-up was 76, 83 points, showing an appropriate index.

During the Pharmacotherapeutic follow-up, we sought to identify the needs and difficulties of patients in relation to treatment and psychiatric disorder. Patients were asked about the importance of adherence to treatment, about the etiology of depression about drug interactions and the need to avoid self-medication, as even non-prescription medicines that can interact with some antidepressants.

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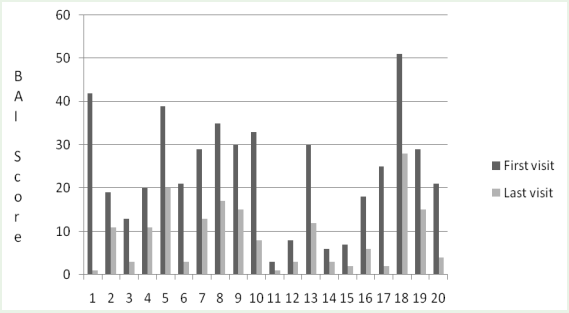

Figure 3: Score of anxiety symptoms presented by patients before and after the Pharmacotherapeutic follow-up.

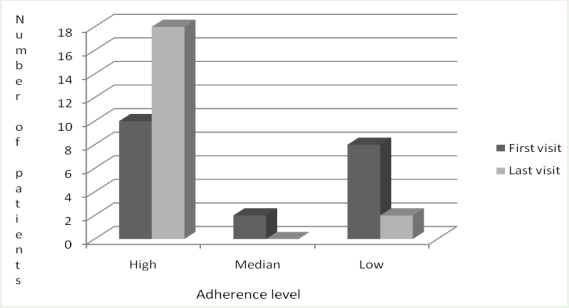

Figure 4: Level of adherence to the treatment in accordance with the method Morisky et al. (1986) before and after the Pharmacotherapeutic follow-up.

Patients were instructed about the most common unwanted effects of each medicine and encouraged to report these effects so that the pharmacist could assist in the resolution or minimize them. During the visits, the pharmacist encouraged patients to practice physical activities or any pleasurable activity, as well as listen to their needs (active listening). The pharmacist has established a bridge between the patient and the doctor. Therefore, those interventions who needed the prescriber were performed quickly since the pharmacist reported the doctor the patient's needs referent to their pharmacotherapy. The pharmaceutical interventions were performed in the form of oral communication between pharmacist-patient and pharmacist-patient-doctor.

Discussion

According to the Brazilian Guidelines for the treatment of depression, when the first episode is treated properly, there are 70-90% chance of having complete remission of symptoms and not occur relapses [18]. The adequate treatment allows not only the proper diagnosis and prescription, but also the rational use of the drug prescribed. Therefore the pharmacistcan contribute to reaching that goal.

According to Santos et al. [19] PHQ-9 it is a simple test, fast, which can be applied by trained interviewers, which is suitable for screening the depression among adults in the general population. For these reasons the PHQ-9 was chosen to be applied in this study. A reduction in the average depression score of 12.95 (moderate major depression) to 5.20 (absence of depressive symptoms). When comparing the scores of each patient in the first home visit with the last, a significant decrease was observed except for one patient who had an increase of the score. Similar results were obtained by Marques et al. [20] but using the Beck Depression Inventory.

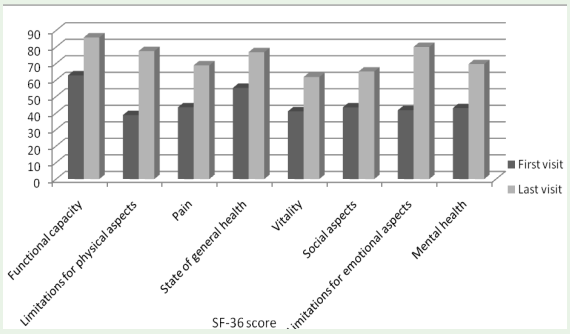

Figure 5: Score of the dimensions of the SF-36 questionnaire before and after the Pharmacotherapeutic follow-up.

The advantage of using the PHQ-9 is that it is a simple and fast way that allows its use in pharmacies, places where the patient often seeks guidance from the pharmacist in Brazil.

Anxiety can be a comorbidity found in patients with depression and thereby it applied the Beck Anxiety Inventory. The average anxiety symptoms of patients on the first visit was 23.95 points classified as moderate anxiety and last visit to medium intensity of anxiety symptoms was 8.90 points considered as minimum / normal.

There was also improvement in the adherence to treatment. Adherence is the level at which conduct of a patient coincides with the instructions given by the doctor or other health care provider refers to the use of the medicine [21]. In a study by Simon et al., it was observed that approximately 35% of primary care patients abandoned treatment in the first month [22].

It is also known that approximately 45% of patients in antidepressive treatment do not exceed the third month of treatment [23]. This premature termination can lead the patient to relapse and decrease the chance that an upcoming antidepressive treatment be successful. That is, according to the Brazilian Guidelines, the chance that a new antidepressant treatment works, decreases every attempt that fails.

Based on the data obtained from the SF-36 questionnaire answered by 20 patients with depression, it can be seen that in all dimensions was increased scores when compared to the results obtained before and after the Pharmacotherapeutic follow-up.

It was observed that the decrease of depressive symptom scores consequently obtained an increase of the dimensions of scores in quality of life, showing a statistically significant correlation between them. In a study by Fleck et al., [8] was observed that depressive symptoms were associated with poor social functioning and quality of life. So the prospect is that by 2020 depression is considered the second cause of disability in developed countries and the leading cause in developing countries, only surpassed by ischemic heart disease [24].

Several studies have demonstrated the effectiveness of pharmaceutical care by Pharmacotherapeutic follow-up in several diseases [25-27] and also in psychiatric disorders [20,28,29].

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The clinical relevance of this study is based on the fact that patients who received a multidisciplinary care showed not only clinical improvement in depression but also improves the quality of life. Whereas in developing countries like Brazil, medical care through the public health system is poor, it is very important the support given by the pharmacist through pharmaceutical care.

Therefore, it is concluded that the pharmaceutical care by Pharmacotherapeutic follow-up was effective in contributing to the reduction of depressive and anxiety symptoms, increase adherence and improve the quality of life of patients.

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References

1. Esteves FC, Galvan AL. Depressão numa contextualização contemporânea. Aletheia. 2006; 24: 127-135.
2. Porto JAD. Conceito e diagnóstico. Rev Bras Psiquiatr. 1999; 21: 6-11.
3. Aros MS, Yoshida EMP. Estudos da depressão: Instrumentos de avaliação e gênero. Bol Psicol. 2009; 59: 61-76.
4. OMS – Orgnização Mundial de Saúde. 17 milhões de brasileiros sofrem de depressão. Disponível em. Acessoem: maio. 2012.
5. Liekens S, Smits T, Laekeman G, Foulon V. Pharmaceutical care for people with depression: Belgian pharmacists' attitudes and perceived barriers. Int J Clin Pharm. 2012; 34: 452-459.
6. Scheerder G, De Coster I, Van Audenhove C. Pharmacists' role in depression care: a survey of attitudes, current practices, and barriers. Psychiatr Serv. 2008; 59: 1155-1160.
7. Rubio-Valera M, MarchPujol M, Fernández A, Peñarrubia-María MT, Trave P, López Del Hoyo Y, et al. Evaluation of a pharmacist intervention on patients initiating pharmacological treatment for depression: a randomized controlled superiority trial. EurNeuropsychopharmacol. 2013; 23: 1057-1066.
8. Lima AFBS, Fleck MPA. Qualidade de vida e depressão: uma revisão da literatura. Rev. psiquiatr. Rio Gd. Sul. 2009; 31.
9. Fleck MP, Lima AF, Louzada S, Schestasky G, Henriques A, Borges VR, et al. [Association of depressive symptoms and social functioning in primary care service, Brazil]. Rev Saude Publica. 2002; 36: 431-438.
10. Machuca M, Fernández-Llimós F, Faus MJ. Método de Dáder – Manual de seguimentofarmacoterapéutico. Grupo de Investigación en Atención Farmacéutica (CTS-131). Universidade de Granada. 2007.
11. Spitzer RL, Williams JB, Kroenke K, Linzer M, deGruy FV, Hahn SR, et al. Utility of a New Procedure for Diagnosing Mental Disorders in Primary Care: The PRIME-MD 1000 Study. The Journal of the American Medical Association. 1994; 272: 1749-1756.
12. Baader T, Molina JL, Venezian S, Rojas C, Farías R, Freixenet CF, et al. Validación y utilidad de La encuesta PHQ-9 (Patiente Health Questionnaire) em el diagnóstico de depresión em pacientes usuarios de atención primaria em Chile. Ver Chil neuro-psiquiatr. 2012; 50: 10-22.
13. Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. JAMA. 1999; 282: 1737-1744.
14. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001; 16: 606-613.
15. Beck AT, Epstein N, Brown G, Steer RA. The Beck Anxiety Inventory. J Consult Clin Psychol. 1988; 56: 893-897.
16. Teixeira ACP, Fonseca AR, Maximo IMNS. Inventário SF36: avaliação da qualidade de vida dos alunos do Curso de Psicologia do Centro UNISAL – U.E. de Lorena (SP). Revista de Psicologia da Vetor Editora. 2002; 3: 16-27.
17. Fleck MP, Berlim MT, Lafer B, Sougey EB, Del Porto JA, Brasil MA, et al. [Review of the guidelines of the Brazilian Medical Association for the treatment of depression (Complete version)]. Rev Bras Psiquiatr. 2009; 31: S7-17.
18. Santos IS, Tavares BF, Munhoz TN, Almeida LSPD, Silva NTBD, Tams BD, et al. Sensibilidade e especificidade do Patient e Health Questionnaire-9 (PHQ-9) entre adultos da população geral. Cad. Saúde Pública. 2013; 29: 1533-1543.
19. Marques LA, Galduroz JC, Fernandes MR, Oliveira CC, Beijo LA, Noto AR. Assessment of the effectiveness of pharmacotherapy follow-up in patients treated for depression. J Manag Care Pharm. 2013; 19: 218-227.
20. Haynes RB, Taylor DW, Sackett DL, Gibson ES, Bernholz CD, Mukherjee J. Can simple clinical measurements detect patient noncompliance? Hypertension. 1980; 2: 757-764.
21. Demyttenaere K. Compliance and acceptance in antidepressant treatment. Int J Psychiatry Clin Pract. 2001; 5: 29-35.
22. de Fatima Cunha M, Gandini RC. "Adesão e Não-Adesão ao Tratamento Farmacológico para Depressão1." Psicologia. Teoria e pesquisa. 2009; 25: 409-418.
23. Goncales CAV, Machado AL. Depressao, o Mal do Seculo: de que seculo?. R. Enferm UERJ. 2007; 2: 298-304.
24. Koshman SL, Charrois TL, Simpson SH, McAlister FA, Tsuyuki RT. Pharmacist care of patients with heart failure: a systematic review of randomized trials. Arch Intern Med. 2008; 168: 687-694.
25. Kraemer DF, Kradjan WA, Bianco TM, Low JA. A randomized study to assess the impact of pharmacist counseling of employer-based health plan beneficiaries with diabetes: the EMPOWER study. J Pharm Pract. 2012; 25: 169-179.
26. Roughead EE, Semple SJ, Vitry AI. Pharmaceutical care services: a systematic review of published studies, 1990 to 2003, examining effectiveness in improving patient outcomes. International Journal of Pharmacy Practice. 2005; 13: 53-70.
27. Siqueira NG, Lago STL, Fernandes MR, Rascado RR, Silva LC, Marques LAM. Pharmaceutical Care through Telemedicine of Outpatients with Mood Disorders: Pilot Study. Ann Depress Anxiety. 2014; 1: 1015.
28. Adler DA, Bungay KM, Wilson IB, Pei Y, Supran S, Peckham E, et al. The impact of a pharmacist intervention on 6-month outcomes in depressed primary care patients. Gen Hosp Psychiatry. 2004; 26: 199-209.
29. Lizer MH, Parnapy Jawaid SA, Marsh W, Mogili L. The impact of a pharmacist assisted clinic upon medication adherence and quality of life in mental health patients. Pharm Pract (Granada). 2011; 9: 122-127.