# **Determination of Antidepressant Drug Use Among Inpatients in Medical and Surgical Clinics**

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#### **ABSTRACT**

**Objective:** This cross-sectional study was performed to determine antidepressant drug use among inpatients in medical and surgical clinics. **Methods:** The study sample consisted of 478 inpatients from a state hospital, between December 1, 2015 and January 1, 2016. The information

form was applied to the patients. Number and percentage distribution were used for data analysis.

**Results:** Of the 478 patients, 34.5% had visited a psychiatrist once in their lifetime, 13.6% were diagnosed with depression, and 13.8% did not know the diagnosis of mental disease; 32.2% were suggested medication by their doctor, 16.7% did not know the name of this medication, and 13.2% stated that the suggested drug was antidepressant. Moreover, 24.9% of the patients were known to use antidepressant at least once in their lifetime, and 16.3% were still using antidepressants. Among patients using antidepressants, 32% continued using this drug upon doctor's recommendation and 13.6% continued with the diagnosis of depression.

**Conclusion:** It might be concluded that one-fourth of the patients used antidepressant once in their lifetime; more than one-half of these patients were still using antidepressants, and most of them were using the drug upon doctor's recommendation without any knowledge about antidepressants.

Keywords: Antidepressant drug, nursing, patient

# 1. INTRODUCTION

According to the Economic Policy Research Foundation of Turkey, the rate of antidepressant use increased 65% in the last 5 years. The consumption was 20 million boxes in 2005 and increased over 34 million in 2010. Antidepressant consumption was 0.29 boxes per capita in 2005, but it increased to 0.45 in 2010 (1). According to the Intercontinental Marketing Service (IMS) data, the growth rate of the antidepressant sales was 160% in the last 9 years in Turkey (2). This increase might be a result of prescriptions by physicians other than psychiatrists and over the counter sales. Psychiatric consultation requested for the hospitalized patients in the departments of the internal medicine, surgery, and physiotherapy might also be responsible for the growth in the consumption of antidepressants. Recent studies have reported that there was an increase in the psychiatric consultations, and depression was one of the most common diagnoses during these consultations; consequently, the use of the antidepressant drugs was increased (3-5). The consultation was requested mostly by the departments of internal medicine, neurology, neurosurgery, physiotherapy and rehabilitation, and pulmonology.

Investigation of the studies focused on psychiatric consultation revealed that the most common diagnosis related to the

psychiatric diseases was depressive disorders, and the most commonly recommended drugs for the treatment of this disease were antidepressants (3-7). As the most common diagnosis among the hospitalized patients was depression, antidepressants were inevitably the most frequently used medications. Nevertheless, the frequent use of this drug group might be associated with certain problems. Several studies in the literature have demonstrated the emergence of extremely severe side effects related to antidepressants. The analysis of these studies showed following side effects encountered: dry mouth, constipation, weight gain, diarrhea, insomnia, yawning, urination problems, drowsiness, headache, and nausea (8, 9). Of the available studies, Ashton et al. (10) reported that patients prescribed treatment for depression reported "gained a lot of weight," "unable to have an orgasm," "lost interest in sex," "unable to have erection," and "tired during the day" (10).

In addition to these severe side effects, uncontrolled use and misuse of the antidepressive agents might cause life-threatening complications. Studies have shown that antidepressants were one of the most frequently encountered drugs in intoxication cases (11-13). Furthermore, according to the investigations, antidepressants were preferred for suicide

in 74.4% attempts (11). In light of these data, we believe that it becomes important to determine how patients access these drugs, whether there is a real need for their use, and who are prescribing them. Treatments administered by the physicians (except psychiatrists) were often insufficient regarding the appropriate and required dosage and the treatment duration. Consequently, the disease became often chronic with labor loss, and mortality increased due to emergence of the untreated disease (2). In light of this information, it should be emphasized that physicians should be more cautious during the diagnosis and prescription of the antidepressive agents. Additionally, it should be considered that nurses responsible for the execution of the physicians' orders also have a major responsibility for the implementation the treatment (14). It is also necessary that nurses inform patients about the side effects, what should be done if the side effects occur, importance of consistent compliance with the treatment, interactions with other substances, periodic tests, time of the onset of the action, and the importance of gradual discontinuation of the treatment (15). We believed that this study would be an important step in indicating the current condition related to antidepressant use and in determining the way for solving the detected problems. In this regard, our objective was to find out the antidepressant use among hospitalized patients in the clinics of internal medicine and surgery.

#### 2. METHODS

# 2.1. Study Design

This study was a cross-sectional, descriptive survey design. Subjects In total, 478 hospitalized patients treated in the internal medicine and surgery clinics of the Giresun Prof. Dr. Ilhan Özdemir Public hospital between December 1, 2015 and February 1, 2016 were included and consented voluntarily to participate in the study.

# 2.2. Materials

Investigators prepared an information form for the patients, which was in line with the relevant literature (2, 3, 9, 16-18). The information form contained 33 questions referring the demographic characteristics of the patients, such as the age, gender, and education status and other characteristics, such as visiting a psychiatrist, antidepressant use, and encountered side effects.

# 2.3. Process

Before the start of the study, approvals of the administration of the Giresun Prof. Dr. İlhan Özdemir Public hospital and the ethics committee of the General Secretary of the Giresun Prof. Dr. İlhan Özdemir Public Hospitals Union were obtained. The study was conducted according to the principles of the Helsinki Declaration. Furthermore, every

patient was informed about the objective of the study. It was explained that they could chose to discontinue from the study at anytime and this act would not affect their treatment. Written consent was also obtained. The enrolled patients (who met the inclusion and exclusion criteria of the study) were questioned within the first week of their hospitalization in their rooms while they were alone.

Inclusion criterias were age >18 years, treatment in the hospital, stay at hospital at least 1 week, no difficulty in communication. Exclusion criterias were stay at hospital <7 days, outpatient, unconscious patients.

#### 2.4. Statistical Analysis

Statistical Package for Social Sciences (SPSS In.; Chicago, IL, USA) for Windows, version 16.0, was used for data entry and analysis. The analysis was conducted with numeric and percentage distribution.

#### 3. RESULTS

Some of the characteristics of the patients are summarized in Table 1; 29.9% of the patients were in the age group of 41–60 years, 52.1% were females, 47.9% were primary school graduates, and 84.5% were not working. In addition, 45.8% of the patients were known to live in small towns, and 53.9% had an income equal to their expenditure (Table 1).

**Table 1.** Patient characteristics

		n	%
Age group	≤20 years	4	0.8
	21–40 years	49	10.3
	41–60 years	143	29.9
	61–80 years	186	38.9
	≥81 years	96	20.1
Gender	Female	249	52.1
	Male	229	47.9
Educational status	Illiterate	184	38.5
	Primary school	229	47.9
	Middle school	32	6.7
	High school and university	33	6.9
Working status	Working	74	15.5
	Not working	404	84.5
Marital status	Married	327	68.4
	Single	151	31.6
Living location	Village	219	45.8
	Town	137	28.7
	City	122	25.5
Income level	Income equal to expenditure Income less than expenditure Income more than expenditure	258 207 13	53.9 43.3 2.7

Table 2 shows that 34.5% of the patients visited a psychiatrist at least once, 13.6% were diagnosed with depression, 13.8% were not aware of the psychological diagnosis they received, 32.2% had a medication recommended by the physician, 16.7% did not know the name of the drug, and 13.2% had an antidepressant as the recommended drug.

**Table 2.** Patients' characteristics related to visiting the psychiatrist and psychiatric drug use

		n	%
Visit to a psychiatrist	Visited Not visited	165 313	34.5 65.5
Psychiatrist visiting time	Not visited 1–10 years ≥11 years	313 149 16	65.5 31.2 3.3
Psychiatric disorder	I don't have a disease I don't know the diagnosis Major depression Schizophrenia Anxiety disorder Substance abuse Dementia Sleep disorder Bipolar affective disorder	313 66 65 1 8 1 13 10	65.5 13.8 13.6 0.2 1.6 0.2 2.7 2.1 0.2
Psychiatrist suggestion	Not visited Use of medication Hospitalization No suggestion	313 154 1 10	65.5 32.2 0.2 2.1
Type of medication	Not visited No medication I don't know brand name of drug Antidepressant Anxiolytic Antipsychotic Sedative-hypnotic	313 6 80 63 3 9 4	65.5 1.3 16.7 13.2 0.6 1.9 0.8
Duration of drug use	Not visited Not use a drug 1 year and ago 2–10 years ≥11 years	313 12 96 49 8	65.5 2.5 20.1 10.3 1.7

It was also observed that 24.9% of the patients used an antidepressant at least once in their lifetime, and 16.3% of the patients were using an antidepressant during the study. In addition, 32% of the patients were using an antidepressant agent, which was recommended by a psychiatrist and 13.6% were continuing to use this drug with a diagnosis of depression (Table 2).

Table 3 shows the side effects most commonly encountered by the patients who used an antidepressant at least once in their lifetime: dryness in the mouth (33.6%), weakness (29.4%), dysmnesia (29.4%), lightheadedness (27.7%), restlessness (26.1%), somnolence (26.1%), hot flash (22.7%), and dizziness (21%; Table 3).

**Table 3.** Adverse effects of antidepressant drugs (n=119)

	Present		Absent	
Adverse effects	n	%	n	%
Sweating	19	16	100	84
Dryness in the mouth	40	33.6	79	66.4
Hot flash	27	22.7	92	77.2
Lightheadedness	33	27.7	86	72.3
Flutter	22	18.5	97	81.5
Urinary retention	10	8.4	109	91.6
Loss of appetite	14	11.8	105	88.2
Constipation	10	8.4	109	91.6
Sleepiness	20	16.8	99	83.2
Weakness	35	29.4	84	70.6
Loss of weight	7	5.9	112	94.1
Loss of sexual desire	7	5.9	112	94.1
Restlessness	31	26.1	88	73.9
Increased appetite	15	12.6	104	87.4
Dysmnesia	35	29.4	84	70.6
Nausea	23	19.3	96	80.7
Increased weight	6	5	113	95
Thoughtfulness	23	19.3	96	80.7
Irritability	21	17.6	98	82.4
Somnolence	31	26.1	88	73.9
Defect of vision	13	10.9	106	89.1
Dizziness	25	21	94	79

Table 4 shows that two-thirds of the patients stated that the symptoms relieved partially, and only 47.1% of them expressed that they would use the drug along the duration recommended by the physician. Patients who did not use the drug declared the following reasons: fear of addiction (21.6%), belief that it will not solve their problems (13.7%), and fear of side effects (17.6%).

Table 4. Patient thoughts regarding antidepressant drug use

		n	%
Did antidepressant drugs relieve the symptoms of the disease? (n=119)	Symptoms relieved completely Symptoms relieved partially Symptoms not relieved	20 78 21	16.8 65.5 17.6
How long do you plan to use antidepressant drugs? (n=119)	Duration recommended by the physician Duration symptoms relieved completely At least 6 months Discharged from the hospital I don't think to use drug 1 don't know	56 11 1 2 27 22	47.1 9.2 0.8 1.7 22.7 18.5
Reasons of not using antidepressant drugs after discharged (n=51)	Fear of addiction I think I'm not crazy Belief that it will not solve their problems Think that my disease relieved completely Fear of side effects I feel worse when use drugs Other	11 7 15 9 4 4	21.6 2.0 13.7 29.4 17.6 7.8 7.8
Who provided information about antidepressant drugs (n=119)	Doctors and nurses Pharmacist	113 6	95 5

Table 5 shows that 99.2% of the patients did not know the effects of the drugs, 100% did not know the time of the onset of the effect, 96.6% did not know the duration of the treatment, 97.5% did not know when to discontinue the drug, and 99.2% did not know the most important side effects which might emerge during the treatment. However, the patients wished to be informed regarding the effects of the drugs (20%), duration of the treatment (13.4%), possible risk of the drug (13.4%), drug's effects on the body (7.6%), methods of coping with the side effects (2.5%), and addiction potential of the drug (0.8%). Additionally, most of the patients requested this information, particularly from physicians and nurses (Table 4).

**Table 5.** Patients' knowledge related to level of antidepressant drugs (n=119)

	Know		Not know	
	n	%	n	%
Effects of antidepressant drugs	1	0.8	118	99.2
Time of the onset of the effect of the drugs	-	-	119	100
Duration of the treatment	4	3.4	115	96.6
Time of the discontinuing the drugs	3	2.5	116	97.5
Most important side effects of the drugs	1	0.8	118	99.2

#### 4. DISCUSSION

The objective of our study was to determine the antidepressant use among patients hospitalized in the internal medicine and surgery clinics. In this context, we questioned the prescribing physicians, symptoms aimed to treat with the prescription, awareness about the side effects, the encountered side effects, duration of the treatment, and experienced benefits of the treatment.

One of the findings of our study was that 24.9% of the patients used an antidepressant agent at least once in their lifetime, and 16.3% of them were still using an antidepressant. Overall, 32% of the patients stated that they were using an antidepressant agent according to the recommendation of a psychiatrist.

The studies focused on this topic showed that the rate of the antidepressant use among the hospitalized patients was between 31.4% and 36.3% (4, 6). In a study conducted in Norway, this rate was 21.7% among 4,374 patients treated because of opioid addiction (19). It was reported that 10.5% of 928 patients who visited a psychiatrist used an antidepressant agent, and 73.6% of these patients received their prescription from a physician who was not a psychiatrist (20). In a study, it was determined that 15.6% of the 16,780 heart failure patients, who were not diagnosed with clinical depression, used antidepressants (21).

In another study, it was reported that 33% of 218 heart failure patients used an antidepressant, and 26% were not diagnosed with depression before the antidepressant use; the drug was prescribed by a second-step physician (16). The most commonly prescribed medication in medical and surgical patients was antidepressant. Also, doctors

not specialized in psychiatry were responsible for most prescriptions of antidepressant drugs (17). According to these findings, it might be suggested that the use of antidepressant agents was common abroad as well as in our country, and antidepressant treatment was initiated without prior diagnosis of depression in some patients and probably prescribed by a physician who was not a psychiatrist.

Another finding of our study was that the most common side effects encountered in the patients using an antidepressant at least once in their lifetime were dryness in the mouth, weakness, dysmnesia, lightheadedness, irritability, somnolence, hot flash, and dizziness. In addition to these side effects, we observed that patients experienced side effects, which might negatively affect their quality of life and interindividual relations, such as decreased libido, palpitation, visual impairment, increase in panic symptoms, inattentiveness, irritability, and dizziness.

A research study has reported that the most common side effects, which were experienced by 811 depression patients using antidepressants, were dryness in the mouth, constipation, weight gain, insomnia and diarrhea (8). Another study has determined that 22% of the patients who had an antidepressant treatment did not comply with the treatment because of the problems, such as weight gain, sexual dysfunction, lack of sexual desire, and weakness (10). The most common side effects of the antidepressant treatments were also headache and nausea (9).

As seen in our study along with studies from abroad, patients often encounter anticholinergic side effects caused by the antidepressants. Moreover, there were other studies demonstrating that extrapyramidal symptoms, such as parkinsonism, acute dystonia, tardive dystonia, and dyskinesia, were seen during the antidepressant treatment (22-24).

The rate of the most common side effect in our study was 33%, although the rate of some side effects was up to 74% in the studies previously mentioned. As the patients experienced the side effects before the onset of the therapeutic effect and therefore experienced difficulty to comply with the treatment and discontinue the medication, they should be informed that the drug must be administered at tolerable doses; they should also be able to continue with the treatment after the onset of the side effects and be able to manage the side effects during treatment.

One of the most important outcomes of our study was that almost all of the patients had no information regarding the effect of the drug, duration of the effect, treatment duration, time of treatment discontinuation, and the most important side effects during the treatment. However, they expressed that they wanted to receive information about the effects of the drugs, duration of the treatment, about the potential harms of the drugs, effects to the body, management of the side effects, and the addictive potential of the drugs. These results might be related to the lack of briefing of the patients

by the physicians and nurses or to the lack of interest of the patients.

We accessed only one study conducted in Turkey, which would contribute significantly to this topic. Striking results were obtained by this descriptive study, which the researchers conducted by accessing 120 family physicians working in 6 different districts of Istanbul. Although 80.8% of the family physicians suggested that they had sufficient information and experience to diagnose depression, the investigators determined 47.5% of them were not sufficiently informed about the treatment of depression. In the same study, only 1.5% of the physicians were able to identify all of the depression symptoms, and 89.2% expressed that they needed regular training about the use of the antidepressants in the treatment (18).

In a study conducted abroad, 72.0% of 137 physicians, who were prescribing antidepressants, stated that they recommended the patients to use the drugs for least 6 months (25). In the same study, 401 patients were questioned about their treatment, and 34.0% of them stated that their physicians recommended them to use the medication for at least 6 months, and 56% stated that they did not get any explanation in this regard. In addition, patients who informed their physicians about the experienced side effects had a higher compliance rate than those who did not. These results showed that the patients should be trained regarding the effects, side effects, management of the side effects, and duration of the treatment to achieve a good compliance to the treatment period.

# 4.1. Study Limitations

All data were obtained from the patients hospitalized only in one hospital. All data were based on the personal declaration of the patients.

## 5. CONCLUSION

Similar to studies mentioned previously, our study showed that the patients were not adequately informed about the antidepressant use. The physicians and nurses should brief the patients. In this context, enhancement of the knowledge of the prescribing physicians and practicing nurses regarding the antidepressant agents might be useful.

These findings showed that informing the patients about the drug's effects, onset of the effect, duration of the treatment, time of treatment discontinuation, and the most important side effects and their management was essential for compliance to treatment and for benefitting from the drug therapy. It might be recommended that the knowledge level of the practicing nurses and physicians (except psychiatrists) about the antidepressant agents used by the patients should be evaluated, and if necessary, in-service training on the required information should be organized so that they are capable of fulfilling the information needs of the patients

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