Invited Paper

DOI: 10.5455/bcp.20131230121254

A report by Turkish Association for Psychopharmacology on the Psychotropic Drug Usage in Turkey and Medical, Ethical and Economical Consequences of Current Applications

Nazan Aydin[1], Mesut Cetin[2], Erhan Kurt[3], Haluk Savas[4], Cengizhan Acıkel[5], Selim Kilic[6], Cengiz Basoglu[7], Hakan Turkcapar[8]

ÖZET:

Psikofarmakoloji Derneği Türkiye'de psikotrop ilaç tüketimi ve mevcut uygulamaların tıbbi, etik ve ekonomik sonuçları raporu

Bu raporda, Sağlık Bakanlığı, Türkiye İstatistik Kurumu, Türkiye Ruh Sağlığı Profili ve Intercontinental Marketing Service (IMSHealth) verileri kullanılarak ülkemizdeki psikotropik ilaç kullanımı değerlendirilmiştir. İkibinüç yılında 14.24 milyon kutu antidepresan kullanılırken, 2012 yılı sonu itibarıyla bu sayı %162 artışla 37.35 milyon kutu olmuştur. Antipsikotik ilaç kullanımı son 5 yılda %71 artarak 2005 yılında 7.20 milyon kutudan 2012 yılı sonu itibarıyla 12.32 milyon kutuya ulaşmıştır. Antidepresan içeren reçete sayısı son 5 yılda %50 artışla 2007 yılında 18.14 milyondan, 2012 yılı sonunda 26.60 milyona ulaşmıştır.

Antipsikotik ilaç içeren reçete sayısı da son 5 yılda %46.7 artışla 2007 yılında 3.92 milyondan, 2012 yılı sonunda 5.76 milyona ulaşmıştır. En kötümser durumda, antidepresan ve antipsikotik ilaç kullanımını gerektiren çoklu psikiyatrik sorunların sırasıyla %20 ve %5 oranında olduğu varsayımında bulunulduğunda bile reçete üzerinden hesaplanan psikiyatrik hastalıkların prevalansı (reçete sayısı/nüfus) oldukça yüksek kalmaktadır. Aile hekimleri-pratisyenler, psikiyatristler, nörologlar ve diğer uzmanlar 2007 yılında antidepresan reçetelemede sırasıyla %33, %37, %20 ve %11'lik paya sahip olmuş; 2012 yılında %48, %31, %14 ve %7'lik paya sahip bulunmuştur. Bu grup hekimlerin 2012 yılında antidepresanların ilk defa reçetelenmesindeki oranlarının ise sırasıyla %37, %34, %19 ve %11 olduğu belirlenmiştir. Aile hekimleri-pratisyenler, psikiyatristler, nörologlar ve diğer uzmanlar 2007 yılında antipsikotik ilaç reçetelemede sırasıyla %18, %67, %13 ve %3'lük paya sahip olurken: 2012 yılında bu değerler sırasıyla %21, %63, %14 ve %2 şeklinde bulunmuştur. Bu grup hekimlerin 2012 yılında antidepresanların ilk defa reçetelenmesindeki oranlarının ise sırasıyla %6, %73, %19 ve %3 olduğu belirlenmiştir.

Sonuç olarak, veriler Türkiye'de psikotrop ilaçların gereksiz ve/veya aşırı kullanıldığı izlenimini vermektedir. İlaç kullanımındaki artış, nüfus artışı ve psikiyatrik hastalıklarının insidansının artışıyla ilişkili görünmemektedir. İlk defa reçetelenme rakamları psikiyatrist olmayan hekimlerin psikiyatrik hastalıklara uygun olmayan bir şekilde tanı koyduğunu ve tedavilerini başlattığını düşündürmektedir. Bu durum psikotrop ilaçların reçetelenmesinde yetkilendirme konusunun tekrar ele alınmasını zorunlu kılmaktadır.

Anahtar sözcükler: psikotrop ilaçlar, antidepresanlar, antipsikotikler, aşırı tüketim

Klinik Psikofarmakoloji Bulteni 2013;23(4):390-402

ABSTRACT:

A report by Turkish Association for Psychopharmacology on the psychotropic drug usage in Turkey and medical, ethical and economical consequences of current applications

This report evaluation of the psychotropic drug usage in Turkey based on the data provided by Intercontinental Marketing Service (IMSHealth), Ministry of Health, Turkish Statistical Institute, Turkish Mental Health Profile. A total of 14.24 millions units of antidepressants were used in 2003. By increasing 162%, annual antidepressant usage reached 37.35 millions units by the end of 2012. Antipsychotic drug usage increased by 71% during the last 5 years, from 7.20 millions units in 2005 to 12.32 millions as of the end of 2012. The total number of prescriptions including an antidepressant was 18.14 millions in 2007, by increasing 50% in the last 5 years, it reached 26.60 millions in 2012. The total number of prescriptions including any antipsychotic drug increased from 3.92 millions in 2007 to 5.76 millions in 2012, increasing by 46.7%. In the worst case scenario considering concurrent psychiatric disorders, prevalence of disorders requiring antidepressants and antipsychotic drugs could be as high as 20% and 5%, respectively. The calculated frequency (prescription/population) was much higher than the worst case scenario estimates. In 2007, family physicans and practitioners, psychiatrists, neurologists, and specialists of other disciplines prescribed 33, 37, 20, and 11% of all antidepressants, respectively. In 2012, they prescribed 48, 31, 14, and 7% of all antidepressants, respectively. The first time antidepressant prescriptions in 2012 were done at the rate of 37, 34, 19, and 11% by above mentioned specialists, respectively. In 2007, family physicans and practitioners, psychiatrists, neurologists, and specialists of other disciplines prescribed 18, 67, 13, and 3% of all antipsychotics, respectively. In 2012, the same set of specialisations prescribed 21, 63, 14, and 2% of antipsychotics, respectively. The "first time" antipsychotics were prescribed at the rate of 6, 73, 19, and 3% by above mentioned order of specialists, respectively. In conclusion, the data suggest that there was an unnecessary and/or excessive prescribing of psychotropic agents. The increase is not related to increased population and/or prevalance of psychiatric disorders. The numbers of first time prescriptions suggest that non-psychiatrists diagnose and initiate treatment for psychiatric disorders. This requires re-evaluation of authorization to presribe psychotropic agents.

Keywords: psychotropic drugs, antidepressants, antipsychotics, overuse

Bulletin of Clinical Psychopharmacology 2013;23(4):390-402

[1]M.D., Professor of Psychiatry, [3]M.D., Associate Professor of Psychiatry, Bakirkoy Prof. Dr. Mazhar Osman Mental Health and Neurological Diseases Training and Research Hospital, Department of Psychiatry, Istanbul - Turkey
[2]M.D., Professor of Psychiatry, Editor -in-Chief, Klinik Psikofarmakoloji Bülteni-Bulletin of Clinical Pychopharmacology, GATA Haydarpasa Training Hospital, Department of Psychiatry, Istanbul - Turkey
[4]M.D., Professor of Psychiatry, Gaziantep University, Medical Faculty, Department of Psychiatry, Gaziantep - Turkey
[5]M.D., Professor of Biostatistics, Gulhane Military Medical Academy, Department of Biostatistics, Ankara - Turkey
[6]M.D., Professor of Epidemiology, Gulhane Military Medical Academy, Department of Epidemiology, Ankara - Turkey
[7]M.D., Professor of Psychiatry, GATA Haydarpasa Training Hospital, Department of Psychiatry, Istanbul - Turkey
[8]M.D., Professor of Psychiatry Hasan Kalyoncu University Department of Psychology Gaziantep - Turkey

Address reprint requests to:
Prof. Dr. Nazan Aydın,
Bakırköy Prof. Dr. Mazhar Osman Ruh Sağlığı ve Sinir Hastalıkları Eğitim AraştırmaHastanesi 34147 Bakırköy, İstanbul - Türkiye

Phone: +90-212-409-1515

E-mail address:
nmda25@gmail.com

Date of submission:
November 16, 2013

Date of acceptance:
December 14, 2013

Declaration of interest:
N.A., M.C., E.K., H.S., C.A., S.K., C.B., H.T.: The authors reported no conflict of interest related to this article.

Recently concern about a dramatic increase in the antidepressant usage in Turkey has frequently been pronounced in community and media and medical personnel (1,2). This issue was also been emphasized and verified by a report entitled "Is there an increase in antidepressant usage in Turkey? An evaluation based on psycho-sociological parameters", which was conducted by Ümit Barış Urhan on behalf of Economic Policy Research Foundation (TEPAV) of Turkey in 2010. The report revealed a 70% increase in the antidepressant usage in the last five years, from 20 millions in 2005 to 34 millions units of usage in 2010. While per capita consumption was 0.29 units in 2005; it increased to 0.45 units in 2010 (3). This striking increase has been a great interest, and media raised the fact that "the number of currently active psychiatrists is not that high to prescribe 35 millions of units of antidepressants, so big majority of the antidepressant usage must not have been under the medical physician control or people used these drugs to overcome their problems" (4).

Psychiatric diseases/disorders are considered more embarrassing and humiliating as compared to other diseases in human medicine in the community mainly because of social perception and creation of prejudice by others. The current discussions and raised concerns may cause halting antidepressant medication by patients, and occurrence of possible consequent problems and/or hesitation on usage of antidepressant by the patients, when they sought medical physicians or encourage them to use non-prescribed antidepressants. On the other hand, another serious problem is drug misusage, which includes existence of multiple drug use, unnecessary/excessive drug consumption, inappropriate drug selection, not following indications, personal applications, and misuse of new drugs.

Studies conducted by Turkish Public Health Administration (formerly known as Refik Saydam Central Public Health Directorate) revealed that about 50% of prescribed drugs in terms of the number of box were incompatible with the diagnosis and about 50% of them were economically unfeasible and irrational (5). According to Organisation for Economic Co-operation and Development report, in health cost medication accounts for 12.3% in England, 12.2% in United States, and 46% in Turkey (6). These proportions are particularly important for our developing country due to limitations of resources and suggest reevaluation of causes in increased psychotropic drug usage to prevent excessive and unnecessary drug use while treating patients effectively.

The Status of the Current Psychotropic Drug Usage in Turkey

This report was prepared based on statistics released Intercontinental Marketing Service (IMSHealth) as of the end of October 2013 for the amount of usage and end of October 2012 for the number of prescription. The current drug usage data were evaluated based on the number of prescription, the number of box per prescription, and estimated prevalence based on population and the number of prescription. The number of prescription was distributed by year and medical discipline. IMSHealth used a representative approach in determination of the number of prescription. The number of box was also distributed by year. The number of box per prescription was calculated by dividing the number of box by the number of prescription.

In order to determine excessive drug usage, predicted one-year frequency based on the number of prescription was compared with expected one-year frequency based on epidemiological surveys. The predicted frequency was obtained by dividing the number of prescription by the population over the years. Moreover, Turkish Statistical Institute data were used to assess compatibility of increase in annual drug usage with actual frequency in accordance with population increase.

Prevalence of diseases requiring antidepressant usage was based on Turkish Mental Health Profile (7). Turkish Mental Health Profile is outcome of a comprehensive survey conducted by The Turkish Ministry of Health. It is used as reference in National Mental Health Action Plan in 2011.

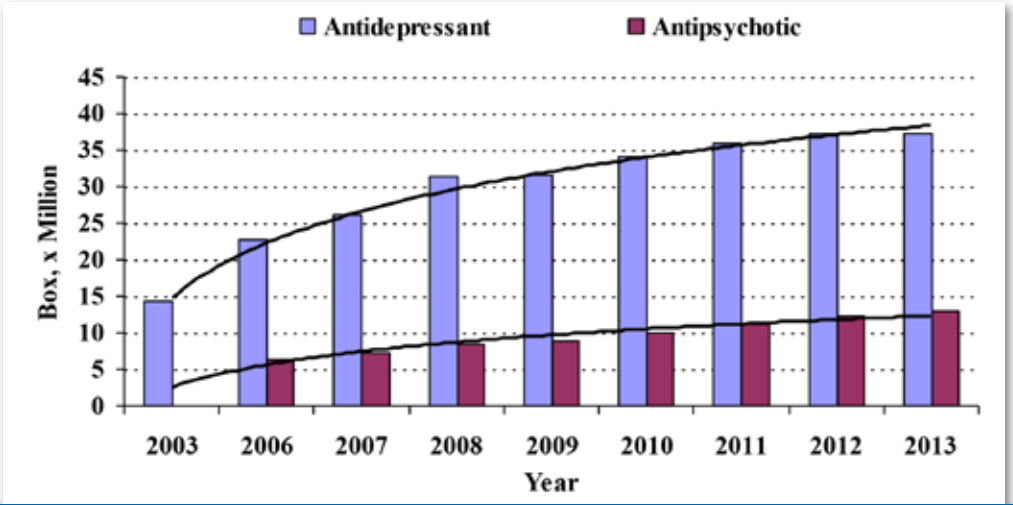

Figure 1: Antidepressant and antipsychotic drug usage in Turkey.

However, a comprehensive survey data about coping with diseases and disorders requiring antipsychotic drug is not available. Thus, survey data from different countries and literature knowledge were used in this report (8).

There was challenge in determination of expected prevalence for diseases requiring antidepressants and antipsychotic drugs. Patients may exhibit signs of single, and mostly multiple problems. Each of multiple problems has its own prevalence. The patient may be prescribed the same medicine even when he has different problems at the time of diagnosis. Another obstacle is the number of prescription, which may not be reliable due to usage of unprescribed drugs. This was verified by the number of units. Non-prescribed drug usage and presence of multiple diseases may cause under estimation of prevalence. Thus, expected prevalence was considered at maximum in order to declare if, drug usage was excessive.

Antidepressant and Antipsychotic Drug Usage in Turkey

According to IMSHealth data, while antidepressant usage (units) was 14.24 millions in 2003, it increased to 31.30 millions in 2008 (120% increase). Considering the last 10 years, the increase rate was 162%, reaching 37.35 millions at the end of 2012 (Figure 1). Antipsychotic drug usage increased by 71% during the last 5 years, from 7.20 millions in 2005 to 12.32 millions at the end of 2012 (Figure 1).

Based on the actual numbers of first 10 months in 2013, a total of 37.29 millions of antidepressant units and 13.03 millions of antipsychotic units will be used within 2013. This trend suggests that the usage of antidepressants would remain unchanged in 2013, whereas usage of antipsychotics will have increased by 5.8% in 2013 as compared to 2012.
The possible explanations for these increases could be either an increased prevalence of mental health problems or people's becoming more conscious about treatment. In contrast to these optimistic approaches, another explanation is that psychotropic drugs, especially antidepressants have been unnecessarily prescribed by physicians in other disciplines as well as non-prescribed usage by people. In order to check validity of these explanations, the number of prescriptions including antipsychotic drugs by physician disciplines, total and new prescription numbers, and sorting prescription by medical disciplines were elucidated. Also, neurologists who are permitted to prescribe antipsychotic drugs were also evaluated in particular of their role in these figures.

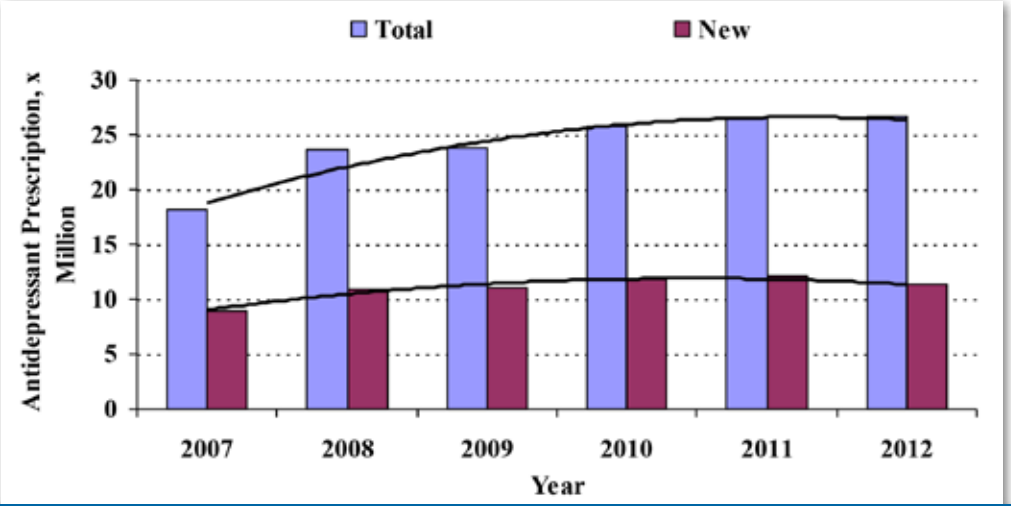

Figure 2: The number of prescriptions recommending antidepressant during the last 5 years in Turkey. This includes refill (total) or first time (new) recommendation.

The Number of Prescription and Its Agreement with Mental Health Disease Prevalence

While total number of prescriptions including antidepressant was 18.139 millions in 2007, by increasing 50% in the last 5 years, it reached 26.596 millions in 2012. These data included the patients were already on antidepressant medication. The number of patients who were prescribed an antidepressant for the first time has increased to 11.29 million from 5.90 millions for the last 5 years (Figure 2). That led us to conclude that everyone visiting physicians were prescribed antidepressants, considering that 30% of Turkish people seek for medical service during the last 5 years become antidepressant user.

In these figures, increased number of prescriptions (total and new) including antipsychotic drugs during the last 5 years could be regarded reasonable if prevalence of psychiatric diseases increases accordingly. Using the number of prescription and census data, prevalence was estimated. Table 1 presents expected prevalence of top 10 psychiatric disorders, which is based on Turkish Mental Health Profile report (7). For example, prevalence of major depressive disorders is 4%. Considering pessimistically, presence of other psychiatric disorders, prevalence of diseases requiring antidepressants could be as high as 20%.

Table 1: Prevalence of psychiatric diseases based on Turkish Mental Health Profile

ICD-10 Diagnoses	Last 12 month-prevalence, %
Agoraphobia	0.6
Panic disorders	0.4
Generalized anxiety disorders	0.7
Major depressive disorders	4.0
Hypochondriasis	0.6
Dysthymia	1.6
Obsessive compulsive disorders	0.5
Social phobia	1.8
Pain disorders	8.4
Somatization disorders	1.6

Figures 3 and 4 ascertain disagreement between the number of prescription and expected prevalence for psychiatric problems. Based on expected prevalence, the number of prescription exceeded legitimate number of prescription by 4 millions in 2007 and 11 millions in 2012. The number of units per prescription was 1.3. That means, 5.2 millions in 2007 and 14.3 millions in 2013 were excessively high. According to Social Security Administration (SGK), minimum and maximum compensations (SUT - Healthcare Services Implementation Directive) for tricyclic, tetracyclic, SNRI, SSRE, RIMA and NASSA groups of drugs (28-30 tablets per box) were 5 and 31 TL in 2012. The average price per box was considered 15 TL. The figures revealed that the institution paid (TL) 78 millions in 2007 and 214.5 millions in 2012,

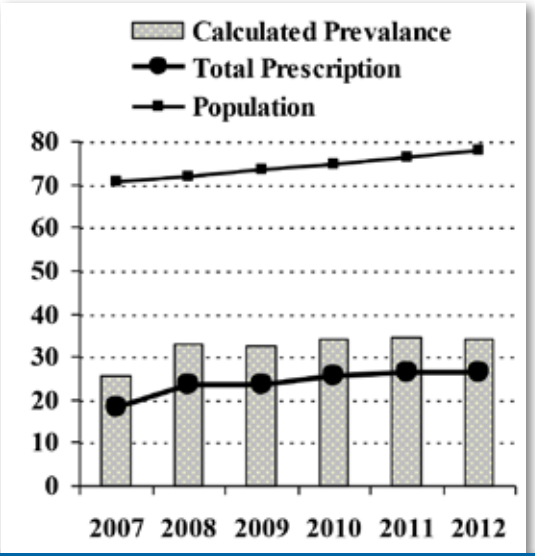

Figure 3: The calculated prevalence of psychiatric disorders based on population and number of antidepressant prescription. Data over years are million and percent.

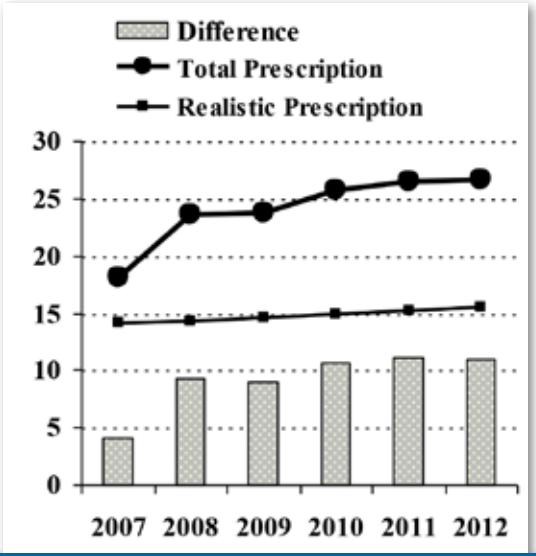

Figure 4: The number of antidepressant prescription that should have been based on expected prevalence and its difference from the actual number of prescription. Data are million.

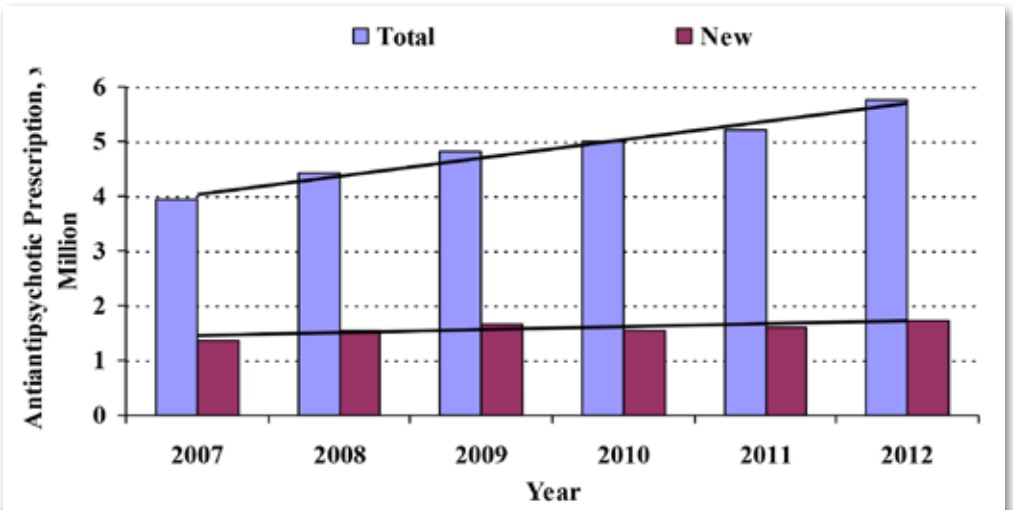

Figure 5: The number of prescriptions recommending antipsychotics during the last 5 years in Turkey. This include refill (total) or first time (new) recommendation.

unnecessarily.

In total, antipsychotic drug prescriptions increased from 3.92 million in 2007 to 5.76 millions in 2012, increasing by 46.7%. When first time antipsychotic drug prescriptions was considered, there was 26% increase in last 5 years, from 1.37 millions in 2007 to 1.73 millions in 2012 (Figure 5).

In the literature, prevalence of diseases recommending antipsychotics is 0.5-1% for schizophrenia, 0.5-0.8% for schizoaffective disorders, 0.1% for schizophreniform disorders, 0.5-1.6% for mood disorders, and 0.01% for postpartum psychosis (8). Again, pessimistically considering these prevalence ratios, 5% maximal level was used in calculation of prescriptions including antipsychotic drugs.

Figures 6 and 7 show disagreement between the number of prescriptions and expected prevalence for psychiatric problems. In year 2007, antipsychotics were prescribed less than expected, but over time, they were also excessively prescribed. For example, 2.48 million units of

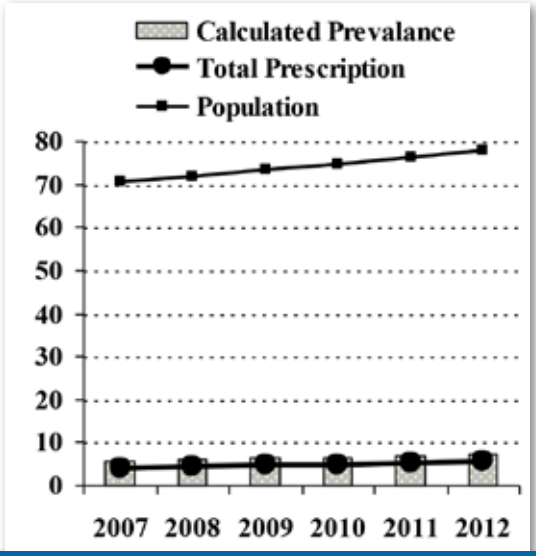

Figure 6: The calculated prevalence of psychiatric disorders based on population and number of antipsychotics prescription. Data over years are million and percent.

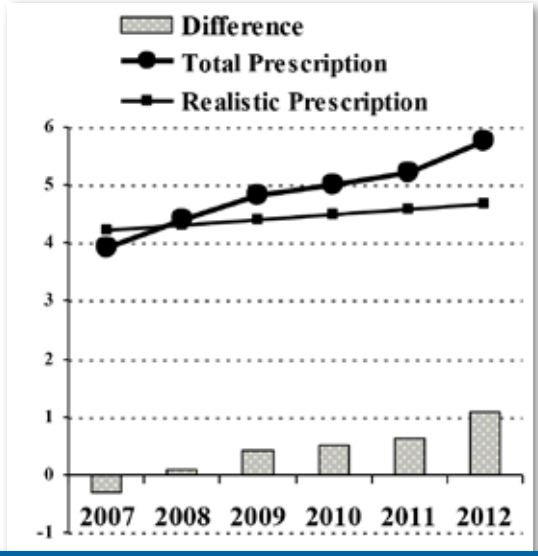

Figure 7: The number of antipsychotics prescription that should have been based on expected prevalence and its difference from the actual number of prescription. Data are million.

antipsychotics were prescribed; it was more than expected. The number of units per prescription was 1.2 and 2.1 in 2007 and 2012. Minimum and maximum compensations for typical and atypical antipsychotic drugs by SGK were 4 and 350 TL. In addition to ascending preference of atypical antipsychotic drugs in recent years (averaging 150 TL), wasted cost was calculated to be 17 millions in 2008 and 371 millions in 2012.

Distribution of Prescriptions by Medical Disciplines

Antidepressants. Since 2008, family physicians (FP) and practitioners (P) have prescribed more antidepressants than psychiatrists and physicianphysicians in other medical specialty (Figure 8). This could be related to the fact that these physicians are allowed to prescribe

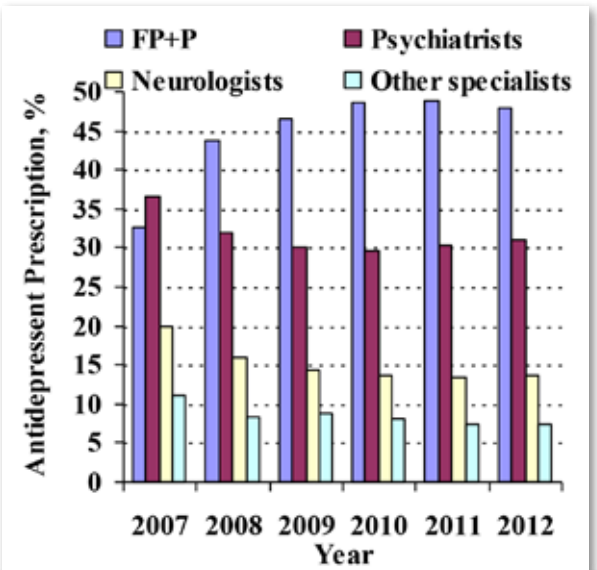

Figure 8: The total number of prescription including antidepressant by medical personnel specialty.

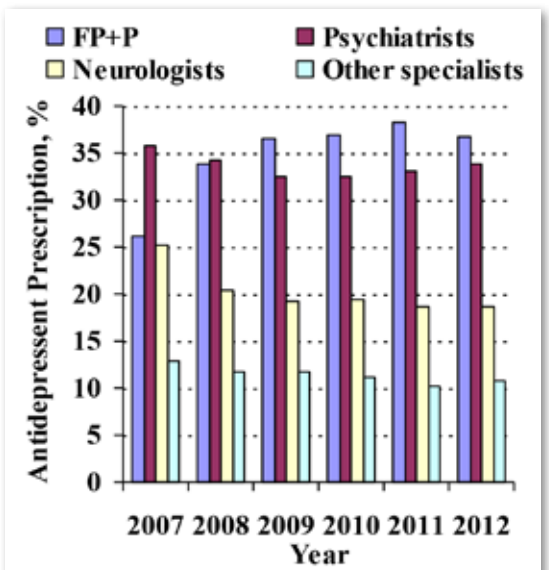

Figure 9: The number of new prescription including antidepressant by medical personnel specialty.

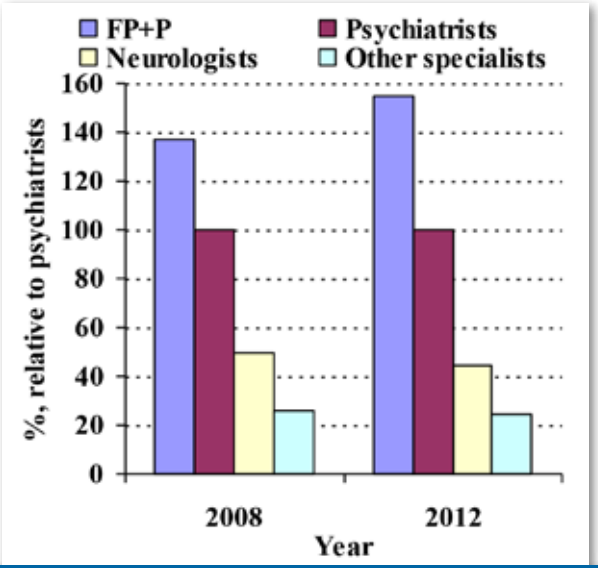

Figure 10: The total number of antidepressant prescriptions by medial doctors relative to psychiatrists.

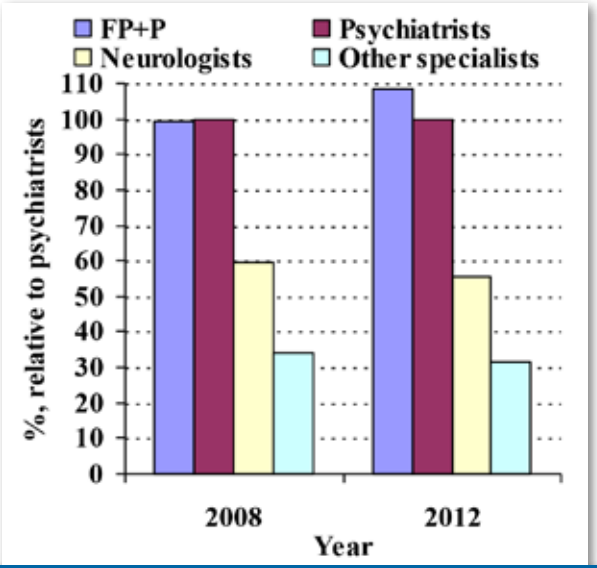

Figure 11: The number of new antidepressant prescriptions by medial doctors relative to psychiatrists.

antidepressants in accordance with a health report signed by the specialists. This could be partially correct, when new prescription was considered, both FP and P prescribed more antidepressant than psychiatrists and neurologists at first visit (Figure 9), suggesting that they diagnose and treat patients without consulting the specialist.

Based on prescription figures on a percentage basis, considering the number of patients examined by a psychiatrist, a family physician (plus practitioner) prescribed 37% more antidepressant than a psychiatrist in 2008 and a neurologist prescribed by half of a psychiatrist. In 2012, antidepressant prescription by neurologists remained unchanged, whereas family physicians increased antidepressant prescription by 55% as compared to psychiatrists (Figure 10).

For frequency of the first time prescription of

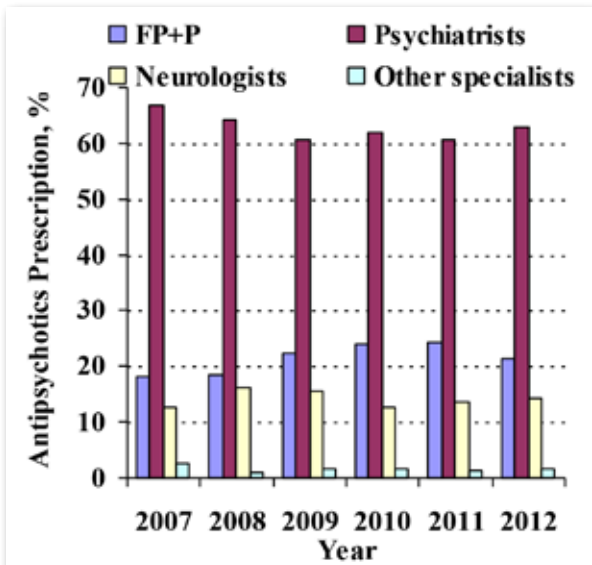

Figure 12: The total number of prescription including antipsychotics by medical personnel specialty.

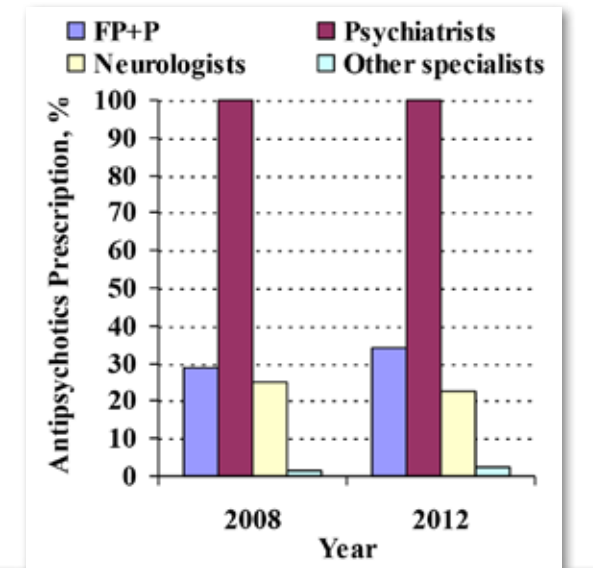

Figure 13: The total number of antipsychotics prescriptions by medial doctors relative to psychiatrists.

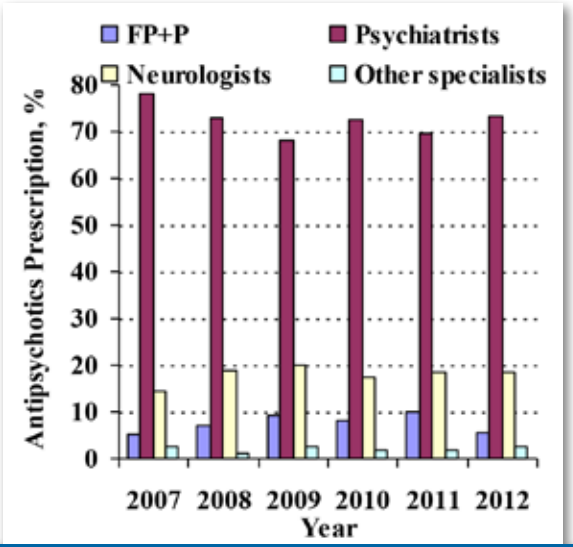

Figure 14: The number of new prescription including antipsychotics by medical personnel specialty.

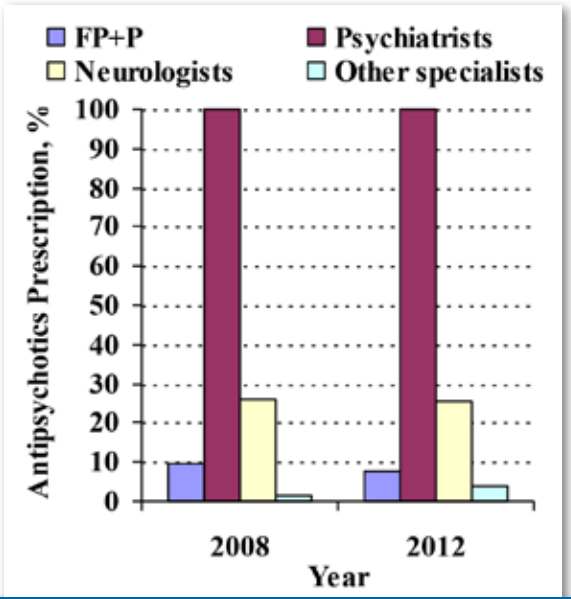

Figure 15: The number of new antipsychotics prescriptions by medial doctors relative to psychiatrists.

antidepressant by family physicians and practitioners was similar to that of by psychiatrists in 2008, but increased to 108.5% of antidepressant prescription by psychiatrists in 2012 (Figure 11). Data showed that neurologists (55% of prescription by psychiatrists) and physicians in other disciplines (32% of prescription by psychiatrists) initiated antidepressant usage at a considerable frequency as compared with psychiatrists.

Antipsychotics. During the last 5 years, psychiatrists prescribed antipsychotics at the most (Figure 12). Family physicians-practitioners and neurologists prescribed antipsychotics by 30-35 and 20-25%% of those by psychiatrists, respectively (Figure 13).

The first time antipsychotics was prescribed mostly by the psychiatrists (more than 70%), followed by neurologists (about 20%) and others (about 10%) (Figure 14). It is thought that use of antipsychotic is not based on indication and diagnosis and prescribed by unauthorized specialists during the last 5 years.

For instance, in the same hospitals, a neurologist can prescribe antipsychotics without consulting a psychiatrist as if he/she was authorized. Thank to declaration by Health Enforcement Notice neurologists are allowed to share authorization of psychiatrists in prescription of all antidepressants, typical antipsychotics, all atypical antipsychotics except for parenteral forms, sodium valproate for bipolar disorders (9).

The Ministry of Health Enforcement and Its Reflection in Practice

Articles for Reimbursement System for psychotropic has been subjected to a number of changes since 2004. Expectedly, these changes reflected differently in practice (Table 2).

For authorization, the proclamation on enforcement of medical practice by the Social Security Institution/the proclamation on treatment reimbursement by the Ministry of Finance (SUT/BUT) has been subjected to remarkable changes. The most recent scope was drawn after opinion of Turkish Psychiatry Association in 2006, which made SSRI's be prescribe by all physicians. The main motive for this opinion was based on the fact that "the number of psychiatrists per 100,000 people is much lower than the world average and distribution of specialists within Turkey is not homogenous. Budget enforcement notification impedes psychiatry patients to receive medial

Table 2: Changes in antidepressant prescription in SUT over the years.

Year	Remark
2004	New generation antidepressants: Its usage in treatment must be initiated by pediatric or adult psychiatry specialists. In case their absence, these groups of drugs can be prescribed by neurologists
2004 (2 months later)	Usage of new generation antidepressants will be initiated by specialist doctors (and recommended by other doctors up to 3 months). These drugs can be represcribed by other doctors without requiring medical report when dosage and term are completed as prescribed first by specialist doctors. Atypical antipsychotics must be prescribed by neurologists or psychiatrists (pediatric or adult), in case of their absence they can be prescribed by family physicians.
2005	Tricyclic and tetracyclic antidepressants can be prescribed by all doctors. New generation antidepressants (i.e., SSRI, SNRI, RIMA, NASSA) can be prescribed for no longer than 6 month by all doctors. If continuation is needed they are required to be prescribed by neurologists or psychiatrists (pediatric or adult).
2006	Tricyclic and tetracyclic antidepressants can be prescribed by all doctors. New generation antidepressants (i.e., SSRI, SNRI, RIMA, NASSA) will be prescribed by psychiatrists and neurologists (pediatric or adult) as well as urologists, gynecologists, family physicians. Based on the report signed by these specialists, other doctors can also be eligible to prescribe new generation antidepressants.
2006 (after opinion of Turkish Medical Association)	Tricyclic, tetracyclic and SSRI antidepressants can be prescribed by all doctors. SNRI, SSRE, RIMA, NASSA group antidepressants can be prescribed by psychiatrists and neurologists (pediatric or adult). All other doctors can prescribe these drugs upon the report by psychiatrists and neurologists and cost can be reimbursed.
2010 -	Tricyclic, tetracyclic and SSRI antidepressants can be prescribed by all doctors. SNRI, SSRE, RIMA, NASSA group antidepressants can be prescribed by psychiatry, neurology, and geriatric specialists as well as other doctors if the report by these specialists is signed. (Suppl: 03/06/2010-27600/15, valid after 09/06/2010; bupropiyon HCl can only be prescribed by psychiatrists and neurologists for treatment of major depressive disorders. All other doctors can prescribe it upon the report by psychiatrists and neurologists.

service. The time spent by the psychiatrist for each patient during the stable period becomes shorter, and quality of psychiatric service decreases".

These concerns have been very effective in forming the current SUT scope. However, their validity can be questioned. Seeking for answers to following questions is legitimate.

1) Is only psychiatrist number among other specialists in Turkey below the world figures?

2) Does not only psychiatry exhibit homogenous distribution in nationwide? Is there any city where there is no active psychiatrist?

3) Do only psychiatric diseases require different applications and rules from other diseases?

4) Do not planning and continuation of antipsychotics and antidepressants require expertise, skill, and special education?

5) Do neurologists, who have almost similar authorization, receive strong background education and training on psychiatry during residence and thereafter?

6) Do physicians in other disciplines receive

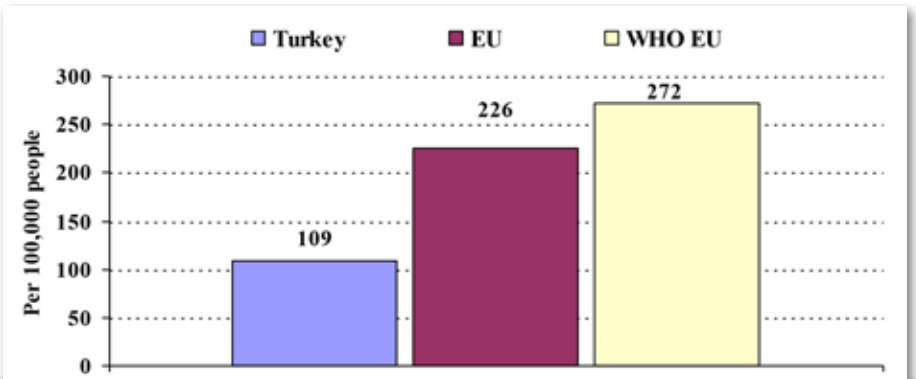

Figure 16: The number of active specialist doctors in Turkey and EU countries.

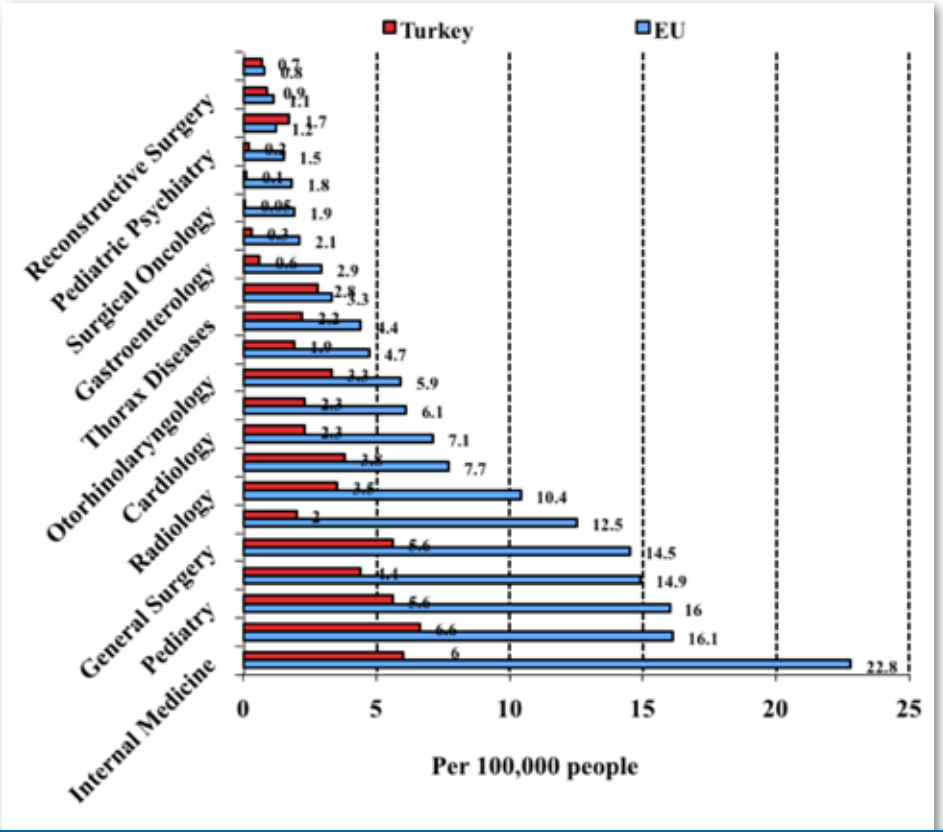

Figure 17: The comparison of the number of active specialist doctors by specialty in Turkey and EU countries (11).

effective education and training to treat psychiatric treatment?

Question 1: Is only psychiatrist number among other specialists in Turkey below the world figures? The number of active specialist physician per 100,000 people in Turkey (Figure 16) is much lower than that in EU-27 and WHO EU Zone (10).

Considering specialists by specialty (Figure 17), psychiatry is the lowest, followed by radiology, rheumatology, anesthesiology and reanimation, gastroenterology, and endocrinology-metabolism. Neurology ranks bottom third as compared to neurology category in EU countries (10).

Question 2: Does not only psychiatry exhibit homogenous distribution in nationwide? Is there any city where there is no active psychiatrist?

As of August 2012, psychiatry service is given in all cities. The frequency of psychiatrists varies by region, which is true for physicians in all disciplines. For instance, distribution of psychiatrists and neurologists is similar.

Question 3: Do only psychiatric diseases require different applications and rules from other diseases?

A report by the Directorate of Refik Saydam Public Health Center on National Illness Surveillance and Cost Effectiveness Project stated that "Perinatal problems and chronic diseases-cardiovascular diseases, respiratory diseases, neoplasms, osteoarthritis, and mental problem are the major public medicine issues" (5). This report clearly consider importance of psychiatric diseases affecting medical cost and life quality. Therefore, authorization of physicians in other disciplines to diagnose and treat patients with psychiatric problems should be reconsidered.

Question 4: Do not planning and continuation of antipsychotics and antidepressants require expertise, skill, and special education?

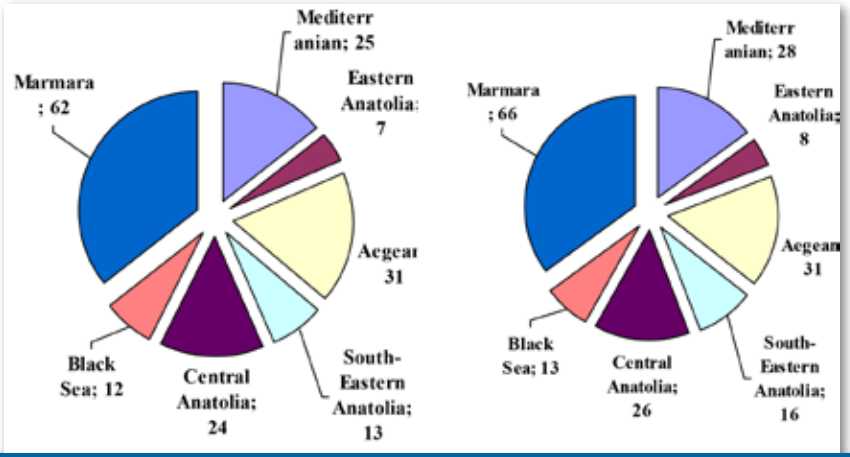

Figure 18: The distribution of psychiatrist (n=1775, the left panel) and neurologist (n=1927, the right panel) by the regions in Turkey (Based on data released by The Ministry of Health in August, 2012).

Food and Drug Administration (FDA) released warnings on antidepressant usage in children and adolescents in different dates until 2004. They made the warnings be valid for all antidepressants in 2004. Starting from 2007, it has been mandatory to label black-box warning signs at onset of treatment period (12).

Furthermore, these groups of drugs could exert potential to cause mortality in elderly and patients with complicated diseases or on different medications. Thus, require attention and follow up. In 2005, FDA stated warning on atypical antipsychotics in treatment of psychosis related to dementia. This warning was updated and made it valid for typical antipsychotics in 2008 (13).

Question 5: Do neurologists, who have almost similar authorizations, receive strong background education and training in psychiatry during residency and thereafter?

In decision numbered with 246 and dated with 27.12.2011 by Council of Specialization in Medicine regulates the Neurology Residence Training Rotation, 1 month in Endocrinology and Metabolic Diseases, 2 months in Internal Medicine, 1 month in Cardiology, 3 months in Psychiatry, 3 months in Radiology, and 3 months in Pediatric Neurology. The Psychiatry Residence Training Rotation covers 4 months in Neurology, 1 month in Emergency Medicine, and 4 months in Pediatric Psychiatry. Only 3-month psychiatry education in the Neurology Residence Program is unlikely to equip physicians with knowledge and experience as the level of psychiatrists.

Question 6: Do physicians in other disciplines receive education and training to treat psychiatric disorders?

Other medical disciplines, such as Family Medicine (2 months), Forensic Medicine (2 months), Algology (1 month), Geriatric (2 months), Public Medicine (1 month), Aviation Medicine (1 month), Occupational and Environmental Medicine (1 month), and Pediatric Psychiatry (1 year) offer psychiatry training rotations. A 12-month rotation could provide sufficient knowledge and experience for pediatric psychiatrists to treat patients with mental health problems. Considering basic medical education is enough for practitioners to assess and treat patients with psychiatric disorders would mean to deny the necessity of psychiatry residency training program.

Results

1. The use of antidepressants is effective in treating psychiatric disorders, which is

confirmed scientifically.
2. The increased in use of antidepressants cannot be explained by rising number of affected people.
3. SUT permitted antidepressant prescription by the physicians in other disciplines in the past due to insufficient number of psychiatrists in the field. However, nowadays patients can access psychiatrists even in provinces.
4. Treating psychiatric disorders by specialists of other disciplines, might result in poor drug choices and dosing and treatment duration might not be correctly adjusted. In turn, those mistakes could increase chronicity risk and may also cause losses of life and money.
5. Antidepressant prescription mostly by general practitioners or those in other disciplines increases unnecessary prescribing of psychiatric drugs, and this conflicts with rational and effective medication idea and regulation by the Health Enforcement in Practice. Drug prescription policies should therefore be re-evaluated based on today's realities.
6. Other health problems, including perinatal diseases and cardiovascular disease is associated with labor loss and can be fatal. However, these conditions are not permitted to be treated by some or all specialist physicians. Their treatments can only be provided by specialists trained in that specific field.
7. As indicated by FDA warnings, prescription of antipsychotics and antidepressants could complicate patient status in specific conditions.

Measurements and Suggestions

1. Psychotropic should be prescribed by only psychiatrists and other physicians if reported by psychiatrists, be subjected to limitation like statins.
2. In mild depression cases, psychotherapy should be prioritized. Medication should be suggested for moderate and severe depression cases.
3. Other diseases requiring antidepressant usage, such as anxiety disorders, eating disorder, and somatoform disorders should certainly be treated by psychiatrists.
4. In agreement with policies and applications in developed countries, diagnosis and treatment as early as possible is important. Thus, family physicians should effectively and sufficiently be educated and trained on prescribing psychotropics.
5. At first stage, mild depression should be treated by psychotherapy approach. Thus, Short Term Cognitive Behavioral Therapy and Interpersonal Psychotherapy courses and workshops should be provided by the experts to family physicians and psychiatrists.
6. For the first stage depression diagnosis and treatment, the guidelines should be prepared by specialist psychiatrists and recommendations should be meticulously applied by medical personnel.
7. After receiving education and training program for diagnosis and treatment of depression, family physicians should be allowed to prescribe all antidepressants up to 3 months.

References:

1. http://www.medihaber.net/2012/08/12/antidepresan-cilginligina-kim-dur-diyecek/
2. http://www.ailehekimligi.com.tr/?Ctrl=HTML&HTMLID=4548&t=Antidepresanlar_Leblebi_Gibi_Yaziliyor
3. Urhan UB. Is there an increase in antidepressant usage in Turkey? An evaluation based on psycho-sociological parameters. Economic Policy Research Foundation of Turkey (TEPAV) Entrepreneurship Institute publications, 2010. (Turkish)
4. http://www.haberturk.com/polemik/haber/716797-antidepresanlara-fena-sardik
5. Republic of Turkey, Ministry of Health, Refik Saydam Hygiene Center Presidency School of Public Health, Başkent University, National Burden of Disease and Cost Effectiveness Project, Cost Effectiveness Final Report, Ankara, 2004.(Turkish)
6. OECD Reviews of Health Systems – Turkey - ISBN 978-926-405-108-9, A joint OECD-World Bank publication, 2008 (http://www.oecd.org/els/healthsystems/oecdreviewsofhealthsystems-turkey.htm
7. Kilic C. Mental Health Profile of Turkey: Main Report. Ministry of Health. Ankara, 1998.(Turkish)

8. Doğan O. Psychiatric Epidemiology, Publications of the Ege University Medical School, Izmir, 2002. (Turkish)
9. Health Application Announcement (SUT), Official Gazette, Ankara, 2012. (http://www.resmigazete.gov.tr/eskiler/2012/06/20120622-24.htmSağlık)
10. WHO/Europe, European HFA Database, August 2010.
11. Eurostat. New cronos Database-2010.
12. http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/UCM096273
13. http://www.fda.gov/drugs/drugsafety/postmarketdrugsafetyinformationforpatientsandproviders/ucm124830.htm