Depression and its Cure: A Drug Utilization Study from a Tertiary Care Centre of Western Nepal

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Original Article

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Abstract

Background:

According to WHO, it is estimated that major depression would be the second most leading cause of disability in the world by 2020. Drug utilization study is defined as study of the marketing, distribution, prescription and use of drugs in a society highlighting on the resulting medical, social and economic consequences. The main objective of this study was to find the utilization pattern of antidepressants prescribed in a tertiary care centre with major depression in hospitalized patients of Western Nepal.

Methods:

A hospital based observational study was done between 1st October 2009 and 31st March 2010 at Psychiatry Ward of Manipal Teaching Hospital, Nepal. Both qualitative and quantitative data was collected from bed side. The outcome variables were essential drug, generic and trade, treatment, groups of antidepressants and antidepressants used. The explanatory variables were age, gender, monthly income, employment of the patient. Z test and logistic regression was used for the analysis. P-value < 0.05 was considered to be statistically significant. This is the first study done to understand the utilization pattern of antidepressant drugs in hospitalized patients in Nepal.

Results:

Among the 240 psychiatric patients studied, 38 (15.8%) cases were suffering from major depression. Male and female patients were 44.7% and 55.3% respectively, 95% CI [28.9, 60.5 and 39.5, 71.1]. Depression was more common in housewives (42.1%) followed by teachers 18.4% and students 10.5%. Fluoxetine was the commonest antidepressants to be prescribed 42.1% followed by Amitriptyline 26.3%, Trazodone 21.1% etc. Psychiatrists has a tendency of prescribing essential drugs if monthly income <10000, 1.063 times as compared to monthly income >10000, 2.63 times more in Hindus and 1.197 times more in Brahmins than any other ethnic groups. 9.179 times more tendency of prescribing antidepressants by trade names in case of unemployed patients as compared to employed patients in Nepal.

Conclusion:

According to the utilization pattern of antidepressants it was found that among the Selective serotonin reuptake inhibitors Fluoxetine was used relatively higher than conventional drugs like Tricyclic antidepressants, recommend that there is a trend of using Typical

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antidepressants drugs for depression rather than Newer antidepressants.

Keywords: Depression, Drug utilization study, Psychiatry, Nepal.

Background

Drug utilization study is defined as a study of the marketing, distribution, prescription and use of drugs in a society highlighting on the resulting medical, social and economic consequences. Medical aspects focus on the need to maintain a balance between the risk and the benefits of the drugs. The benefits are assessed on the basis of efficacy of the drugs in preventing, relieving and curing diseases or their symptoms and complications. Risks include the short term and long term adverse effects, special risk factors associated with genetics, disease and environment, nutrition, age, sex, pregnancy, lactation. Social aspects deal primary with the impact of drugs on the society, which includes the attitudes to drug and health, current trends in the treatment versus insistent use of conventional medicines. Drug abuse and their causes also are essential social components. Economic aspects reflect on the prices and the applicable heath benefits of a given drug. This includes the drug prices, imported drugs versus local products, costs of drug treatment as compared to non drug treatment. Current and future allocation of national resources to the drug & health budget is also an economic component[1]. Drug utilization research affords a baseline reference point about the effect of diverse interventions on prescribing concerning the drugs[2, 3].

According to WHO, it is estimated that unipolar major depression would be the second most leading cause of disability after ischaemic heart disease in the world by 2020 ; as of the year 1990 it was the fourth leading cause of disability worldwide[4]. From a study done in 2010 by Ball et al, in Srilanka, lifetime ever depression was reported in 6.6% of participants using the Composite International Diagnostic Interview[5]. In major depression, a patient's mood is expressed as depressed, sad, hopeless, and discouraged. Symptoms of major depression are characterized by alteration of appetite or reduction or increase of weight, sleeplessness or hypersomnia, and psychomotor instability, reduced energy, feelings of guilt, obscurity of thoughts, frequent of death or suicidal thoughts, plans or attempts continues for most of the day, every day, for at least two weeks[6]. Holly et al. showed in 2003 that primary care physicians are conscious about depression is a prevalent state connected with considerable morbidity and mortality[7].

Antidepressants are a type of antipsychotic drugs used for the treatment of depression is also called as thymoleptics and mood elevators[8]. It is commonly used in depression, anxiety disorders, chronic pain and enuresis. Atypical antidepressants like Buspirone, Venlafexine, Trazodone, are endorsed as better option for treating depression than conventional drugs as Selective serotonin reuptake inhibitors like Fluoxetine, Paroxetine, Citolapram and Tricyclic antidepressants like Imipramine, Desipramine, Clomipramine, Amitriptyline[9].

Literature survey done by Jonathan et al in August 2008 for the period 1987–2009 showed that anxiolytic drug groups like benzodiazepines, azapirones, antihistamines, anti-depressants, alpha-2-delta ligands, antipsychotics, and named drugs buspirone, venlafaxine, duloxetine, fluoxetine, escitalopram, olanzapine, paroxetine, pregabalin, quetiapine and risperidone, in addition to psychological therapies and cognitive-behavioral therapy, are commonly used treatment modalities[10]. Available data merely tells us that antidepressants are effective in moderate and severe depressive illness[11]. In a study done by Shankar et al. in 2001 in outpatient department of Psychiatry in Western Nepal showed that the frequency of use of antidepressants were 45.94%, anxiolytics 19.41%, antipsychotics 8.6% and antimanics 1.96%[12].

This is the first study undertaken in the utilization pattern of antidepressants drugs in hospitalized patients in Nepal. There is also no adequate information on the utilization pattern of antidepressants on Nepalese inhabitants. The main objective of the study was to find the utilization pattern of antidepressants prescribed in a tertiary care centre with major depression in hospitalized patients of Western Nepal. The specific objectives were to find out whether antidepressants were prescribed by generic or trade names, essential or nonessential, drug monotherapy or drugs and psychotherapy combined, commonest antidepressants used, socio demographic details and depression in Nepalese context.

Material and Methods:

Study design and the participants:

A hospital based observational study was done at Manipal Teaching Hospital, Pokhara, Nepal.

Data collection:

The study was carried out between 1st October 2009 and 31st March 2010, at Manipal Teaching Hospital in the Psychiatric ward. Both qualitative and quantitative data were collected. The quantitative data consisted of Socio demographic details like age (<40 years and >40years), sex (male and female), occupation (Housewife, teacher, laborer, shopkeeper, student, farmer, retired and others), religion (Hindu, Buddhist, Muslim), ethnicity (Brahmin, Chettri, Newar, Dalit and others), employment (employed and unemployed), monthly Income (<10000/month and >10000/month, treatment (Drug monotherapy and drug and psychotherapy , based on essential drug list (essential or non essential), trade/generic, Commonest groups of antidepressants, commonest drug were used were collected. Anatomical Therapeutic Chemical Code was also used for different antidepressants prescribed. The qualitative research was undertaken by personal interview with the patient at the bedside in the psychiatry ward.

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The Anatomical Therapeutic Chemical (ATC Code)[9]

Generic Name	ATC Code
Fluoxetine	N06AB03
Amitriptyline	N06AA09
Imipramine	NO6AA02
Bupropion	N06AX12

Inclusion criteria:

All the patients admitted in psychiatric ward with major depression from 1st October 2009 to 31st March 2010 were included in the study. 38 cases who were seriously ill with severe form of major depression were included in the study.

Exclusion criteria:

Out of 240 cases who were admitted in the Psychiatry inpatients only 202 cases were excluded from the study because we wanted to find the drug utilization pattern of antidepressants only. Additional cases those who were of Schizophrenia, Anxiety, Mania, Bipolar disorder, substance abuse, suicidal tendencies and mental retardation were excluded from the study. All the out-patients were also excluded from the study as we wanted to find the drug utilization study in those patients who are critically ill with major depression for which hospitalization was required.

Sample size calculation:

For 95% confidence interval and, significance level α = 5%, P = 90%, Q = 10%, allowable error = 11%, required sample size was 35. P = percentage of antidepressants drugs used for the treatment of depression. In the pilot study done prior to the original study with 10 patients were admitted in the psychiatry ward with depression[14].

Outcome Variable:

Essential drug list of Nepal, generic and trade, treatment (Drug therapy and psychotherapy), groups of antidepressants (newer and typical antidepressants), antidepressants (Fluoxetine, Amitriptyline, Imipramine, Trazodone, Bupropion).

Explanatory variables:

The demographic and psychiatric disorders were defined at individual level. Factors at individual level were Age, gender, monthly income, employment of the patient.

Ethical committee approval:

Prior to the study, ethical committee approval was taken from the ethical committee.

Data management and statistical analysis:

The data collected was analyzed using Excel 2003, R 2.8.0 Statistical Package for the Social Sciences (SPSS) for Windows Version 16.0 (SPSS Inc; Chicago, IL, USA) and EPI Info 3.5.1 Windows Version. The Z test was used to observe the difference between different variables and strength of the relationship with logistic regression. p < 0.05 is considered as statistically significant**.** We calculated odds ratios (OR) and their 95% confidence intervals (95% CI). p < 0.05 is considered as statistically significant[15,16].

Results

Psychiatric illness:

Out of 240 cases admitted to the psychiatry ward, 130 were male (54.2%), 95% CI [47.9, 60.5] and others were female patients. Schizophrenia 36.3% was the major cause of hospitalization among psychiatric patients, followed by Depression 15.8% and anxiety 15.8%, Bipolar disorders 8.3%, Mania 3.8% and all other psychiatric disorders like substance abuse, behavioral disturbances, suicidal tendencies and mental retardation 20%. In Depression, out of 38 cases, male and female patients were 44.7% and 55.3% respectively, 95% CI [28.9, 60.5 and 39.5, 71.1].

Table 1: Cross tabulation between Socio demographic factors, National Drug List of Nepal, Generic and Trade Names

Socio demographic factors		National Drug List of Nepal		Generic/Trade	
		Essential Drugs	Non-essential Drugs	Generic	Trade
Age	> 40 yrs	17 (65.4)	8 (66.7)	7 (50)	18 (75)
	<40 yrs	9(34.6)	4(33.3)	7(50)	6 (25)
	Total	26(100)	12(100)	14(100)	24(100)
	P Value	0.02*	0.08×	1×	0.0001†
Gender	Male	13(50)	4(33.3)	8 (57.1)	9(37.5)
	Female	13(50)	8(66.7)	6(42.9)	15(62.5)
	Total	26(100)	12(100)	14(100)	24(100)
	P Value	1×	0.08×	0.45×	0.07×
Employment	Employed	7(26.9)	4(33.3)	5(35.7)	6(25)
	Unemployed	19(73.1)	8(66.7)	9(64.3)	18(75)
	Total	26(100)	12(100)	14(100)	24(100)
	P Value	0.0001†	0.08×	0.12×	0.0001†
Monthly Income	>10000/ month	6(23.1)	4(33.3)	1(7.1)	9(37.5)
	<10000/ month	20(76.9)	8(66.7)	13(92.9)	15(62.5)
	Total	26(100)	12(100)	14(100)	24(100)
	P Value	0.0001†	0.08×	0.0001†	0.07×

† p<0.01, statistically significant
* p<0.05, statistically significant
× p>0.05, statistically not significant

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Table 1 depicts cross tabulation between socio demographic factors and national drug list of Nepal, generic and trade names. In case of patients older than 40 years 75% of the patient received antidepressants prescribed by trade names. If the patient was unemployed 73.1% and 75% received antidepressants from essential drug list of Nepal and by trade names. If the monthly income of the patients is <10000, 76.9% and 62.5% of the patients received antidepressants from essential drug list and by trade names. All the findings were found to be highly statically significant (P=0.0001).

Table 2: Cross tabulation between Socio demographic factors, Treatment and Groups of Antidepressants

Socio demographic factors		Treatment		Groups of	
		Drugs and Psycho therapy combined	Drug therapy	Newer Anti depressants	Typical Anti depressants
Age	>40 yrs	7 (77.8)	18 (62.1)	6 (66.7)	19 (65.5)
	<40 yrs	2(22.2)	11(37.9)	3(33.3)	10 (34.5)
	Total	9(100)	29(100)	9(100)	29(100)
	P Value	0.0005†	0.06×	0.13×	0.01*
Gender	Male	4(44.4)	13(44.8)	3 (33.3)	14 (48.3)
	Female	5(55.6)	16(55.2)	6(66.7)	15(51.7)
	Total	9(100)	29(100)	9(100)	29(100)
	P Value	0.64×	0.43×	0.13×	0.793×
Employment	Employed	4(44.4)	7(24.1)	3(33.3)	8(27.6)
	Unemployed	5(55.6)	22(75.9)	6(66.7)	21(72.4)
	Total	9(100)	29(100)	9(100)	29(100)
	P Value	0.64×	0.0001†	0.13×	0.0001†
Monthly Income	>10000 /month	1(11.1)	9(31)	4(44.4)	6(20.7)
	<10000 /month	8(88.9)	20(69)	5(55.6)	23(79.3)
	Total	9(100)	29(100)	9(100)	29(100)
	P Value	0.0001†	0.002†	0.64×	0.0001†

† p<0.01, statistically significant
* p<0.05, statistically significant
× p>0.05, statistically not significant

Table 2 represents cross tabulation between Socio demographic factors, treatment and the groups of antidepressants prescribed. Drugs along with psychotherapy were used in 77.8% of the cases if the age of the patient is >40 years. Whereas in case of unemployed patients 75.9% and 72.4% received drug therapy only and typical antidepressants respectively. If the monthly income of the patients were less than 10000, 88.9% received drug therapy along with psychotherapy and 79.3% of the patients received typical antidepressants. All the findings were found to be highly statically significant (P=0.0001).

Figure 1: Occupations of patients suffering from Depression

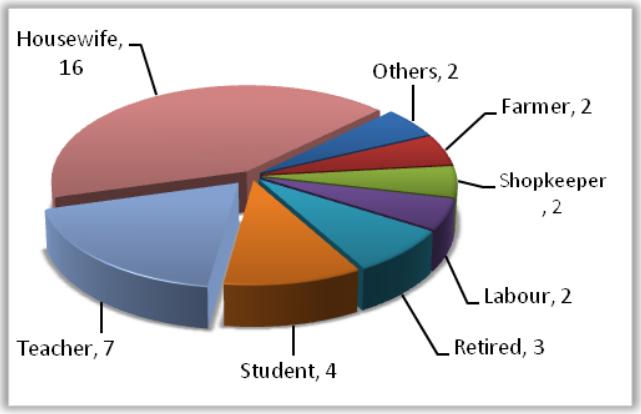

Figure 1 reveals that depression was more common in housewife 42.1% followed by teachers 18.4%, students 10.5%, retired 7.9% and farmer, shopkeeper and others were only 5.3% respectively.

Table 3: Cross tabulation between Socio demographic factors and Antidepressants prescribed

Socio demographic factors		Antidepressants				
		Fluoxetine	Amitriptyline	Imipramine	Trazodone	Bupropion
Age	> 40 yrs	11 (68.8)	6 (60)	2 (66.7)	5(62.5)	1 (100)
	<40 yrs	5(31.3)	4(40)	1(33.3)	3(37.5)	0 (0)
	Total	16(100)	10(100)	3(100)	8(100)	1(100)
	P Value	0.02*	0.36×	0.39×	0.30×	-
Gender	Male	9(56.2)	4(40)	1(33.3)	2(25)	1(100)
	Female	7(43.8)	6(60)	2(66.7)	6(75)	0(0)
	Total	16(100)	10(100)	3(100)	8(100)	24(100)
	P Value	0.48×	0.36×	0.39×	0.02*	-
Employment	Employe	5(31.2)	2(20)	1(33.3)	2(25)	1(100)
	Unemployed	11(68.8)	8(80)	2(66.7)	6(75)	0(0)
	Total	16(100)	10(100)	3(100)	8(100)	1(100)
	P Value	0.02*	0.0001†	0.39×	0.02*	-
Monthly Income	>10000 /month	3(18.8)	3(30)	0(0)	4(50)	0(0)
	<10000 /month	13(81.2)	7(70)	3(100)	4(50)	1(100)
	Total	16(100)	10(100)	3(100)	8(100)	1(100)
	P Value	0.0001†	0.05×	-	1×	-

† p<0.01, statistically significant
* p<0.05, statistically significant
× p>0.05, statistically not significant
- P value cannot calculate

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Table 3 reveals cross tabulation between Socio demographic factors and antidepressants prescribed. In about 68.8% Fluoxetine was prescribed in patient more than 40 years. In case of newer antidepressants like trazodone was more commonly prescribed in female patients 75% and in unemployed patients 75%. Both cases it was statistically significant (P=0.02). In case of 81.2% Fluoxetine was prescribed in patients with monthly income <100000 was found to be highly statistically significant (P=0.0001).

Figure 2: Commonest Antidepressants prescribed

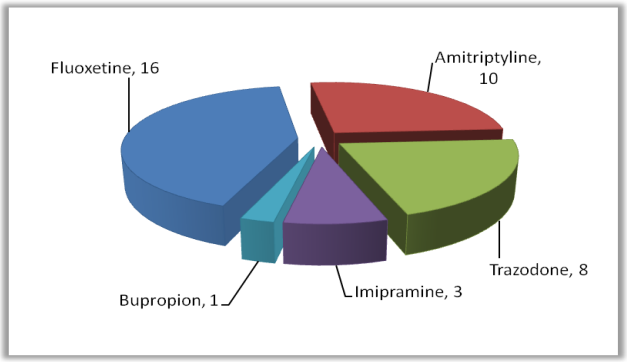

Figure 2 depicts that Fluoxetine (Selective serotonin reuptake inhibitors) was the commonest antidepressant to be prescribed 42.1% followed by Amitriptyline (Tricyclic antidepressants) 26.3%, Trazodone (Newer antidepressants) 21.1%, Imipramine (Tricyclic antidepressants) 7.9% and Bupropion (Newer antidepressants) 2.6%.

Table 4: Logistic regression table of Essential drug list, Trade Names of drugs and socio demographic factors

Socio demographic factors	Essential Drug List	Trade names
	Odds ratio and Confidence interval	Odds ratio and Confidence interval
Age	1.632(0.183-14.573)×	0.07(.007-.719)*
Gender	-	0.951(0.060-15.167)×
Employment	-	9.179(0.395-213.457)×
Monthly Income	1.063(0.194-5.841)×	0.105(0.009-1.165) ×
Religion	2.630(0.254-27.187)×	0.270(0.018-4.14)×
Occupation	0.755(0.43-1.324)×	1.137(0.720-1.796)×
Ethnicity	1.197(0.615-2.330)×	1.378(0.628-3.024)×

* p<0.05, statistically significant
× p>0.05, statistically not significant
- P value cannot calculate

Table 4 shows that the psychiatrist has a 1.632 times more tendency of prescribing essential medicines if the age of the patient is >40 years as compared to <40 years and in case of monthly income <10000, 1.063 times as compared to monthly income >10000,2.63 times more in Hindus and 1.197 times more in Brahmins than any other ethnic groups. It is also seen that the psychiatrist has 9.179 times more tendency of prescribing antidepressants by trade names in case of unemployed patients as compared to employed patients, 1.137 times more in housewives and 1.378 times more in case of Brahmins.

Table 5: Logistic regression table of Drug monotherapy, Groups of drugs and socio demographic factors

Socio demographic factors	Drug monotherapy	Groups of drugs
	Odds ratio and Confidence interval	Odds ratio and Confidence interval
Age	0.872(0.081-9.417)×	1.182(0.110-12.651)×
Gender	-	-
Employment	-	-
Monthly Income	0.244(0.024-2.463)×	0.105(0.468-15.41) ×
Religion	1.070(0.087-13.217)×	0.912(0.088-9.442)×
Occupation	1.248(0.805-1.937)×	0.944(0.552-1.614)×
Ethnicity	1.095(0.534-2.247)×	1.5(0.72-3.125)×

× p>0.05, statistically not significant
- P value cannot calculate

Table 5 reveals that psychiatrists have a tendency to treat depression by drug therapy only 1.07 times more in Hindus as compared to any other religion, 1.248 times more in cases of housewives and 1.095 times more in case of Brahmins. As far as groups of drugs like typical and newer antidepressants are concerned, psychiatrists had a tendency of prescribing typical antidepressants 1.182 times more if the age of the patient is>40 years as compared to patients <40 years, 1.5 times more in Hindus than in any other religion.

Discussion:

Prevalence of Depression

Katon et al reported that the prevalence of depressive disorders in patients reporting to primary care is between 10-20%, of which around 50% remain undiagnosed globally[17]. Worldwide, major depression occurs in 2-4% of persons in community, 5-10% of primary care, and 10-14% in medical inpatients[18]. According to Vasiliadis et al, the prevalence of depression in United States were 8.7% and in Canada 8.2%.[19]. The prevalence of depression ranged between 7.8% and 9.0% in the three main Italian areas[20]. In the Southeast Asian country of Hong Kong, the 12-month general population prevalence of depressive disorders among adults was estimated at 8.4%[21]. The prevalence of depression in South Indian population was 15.1%[22]. The study done by Lamichhane on prevalence of mental illness in Nepal revealed that 4-6% of the total population of Nepal

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was suffering from Depression[23]. In our study, 15.8% of 240 cases admitted to the psychiatry ward were suffering from Depression.

Socio-Demographic Details and Depression

Out of 38 cases of Depression 44.7% of the cases were males and 55.3% of the cases were females. This finding is similar to a study done in Australia by Mant A et al which has showed that Psychiatric illness was more common in female patients[24]. Similar findings were also found in a study done by Hector M Gonzalez et al. on the use antidepressants among Asians in US in 2010 reveals that Depression is more prevalent in females than in male[25].

Most of the patients with Depression were below 40 years of age 65.8%, whereas only 34.2% of the patients were more than 40 years of age. Similar findings are also noted in a study which has shown that antipsychotics prescribed in youths have increased significantly[26]. Psychotropic drugs like Anxiolytics commonly prescribed in less than 40 years are also similar to our findings[27]. Similar findings are also found in a study done by Ramesh et al which has showed that somatic depression occurs in younger age group of patients. The total number of patients (n=131) mean (SD) age, 32.53(12.50) years[28].

In our study, most of the patients with Depression were Hindus 84.2%, followed by Buddhist 13.2% and Muslim at 2.6%. This could be due to the fact that Nepal is a Hindu country and we expect most of the patients are Hindus. Among the ethnic groups, 31.6% of the patients were Brahmin followed by Chettri 28.9, Dalit 15.8%, Gurung 10.5%, Newar 7.9%. Pun, Magar, Lama and other ethnic groups were least in number constituting only 2.6%. Depression was commonly seen in individuals with low monthly income. This finding is similar to a study done in Sweden by Lessen et al. which has showed that utilization of psychotropic drugs were more seen in individuals with low income[29].

As far as occupation of the patient is concerned, depression is most commonly seen in Housewives 42.1%, Teachers 18.4% followed by students 10.5% and retired persons 7.9%. A study done by Boehlke has also showed that depression is common in housewives[30].

Qualitative Research

Personal interview was the method used for Qualitative research in the patients, at the bed side, in the psychiatry ward to find out the cause of depression among housewives, teachers and students. We found that the major causes of depression in housewives were due to broken families, divorces, husbands not giving adequate time or husbands going to other countries for employment. Other causes of depression in housewives were described as their monotonous lifestyle and lack of entertainment. In case of teachers, the depression is due to their tedious lifestyle and repetitive daily routine for months to years. In case of students, it was found that they were unable to cope up with studies. According to the students from different branches, most of the professional courses like MBBS, which is a four and half years course in Nepal, [31-33]. Engineering for four years, Human Biology for 4 years, BSc, BA, BBS, BPharm for three years which is quite long course and they remains unemployed at that period of time. Similar Qualitative research tool were used in housewife in 2011 by Banerjee et al [27]. Several other qualitative studies have been done worldwide related to depression[34-36].

Drug utilization of antidepressants

Drug therapy and psychotherapy

In depressive patients, 76.3% received drug monotherapy compared to 23.7% drugs and psychotherapy. Psychotherapy was not used alone in any patient of depression. Most of the drugs were prescribed by trade names 63.2% whereas only 36.8% of the drugs were prescribed by generic name. This is similar to a study done in 2001 by PR Ravishankar on psychotropic drug utilization which has also shown that 71.3% of the drugs were prescribed by trade names[12]. It is also similar to a study done in 2011 by Banerjee et al. on utilization patterns of Anxiolytics drugs, which has also found that 78.9% of the Anxiolytics were prescribed by trade names[27].

Essential Drugs

Essential drugs were used in 68.4% of the cases of depression. Nonessential drugs were used in 31.6%, which is different from a study which has shown that only 29.48% were from essential drug list of Nepal[12]. Thus it was seen that there is a trend of prescribing drugs from essential drug list of Nepal by the psychiatrists. Drugs that are included from the essential drug list of Nepal are Fluoxetine and Amitriptyline[37].

Typical and Atypical antidepressants

In case of antidepressants, most of the cases typical antidepressants were used 76.3%, newer antidepressants were used only in 23.7% of cases. Among the typical antidepressants Selective serotonin reuptake inhibitors (SSRI's) like Fluoxetine were used in 42.1% of the cases. Tricyclic antidepressants (TCA) like amitriptyline were used in 26.3% followed by Imipramine 7.9%. As far as newer antidepressants are concerned Trazodone were used in 21.1% and Bupropion were used in 2.6% of the cases of depression. So it was seen that psychiatrists had trend of prescribing typical antidepressants like serotonin reuptake inhibitors (SSRI's). This finding is dissimilar to a finding done by Raut in India which has found that among the antidepressants Tricyclic antidepressants were commonly used 54% followed by Selective Serotonin Reuptake Inhibitors were only 36%[38]. Our findings are similar to a study done on drug utilization of antidepressants in UK done from 1st January 1992 to 31st December 2001 in children and adolescents which showed that a total of 24976 patients received antidepressants. Among the antidepressants Selective serotonin reuptake inhibitors (SSRI's) Fluoxetine 9.89%, was the commonest drug used. Among the Tricyclic antidepressants (TCA) Amitriptiline 5.72% followed by Imipramine 2.08% and Nortriptilline

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0.52%. Among the newer antidepressants Trazodone 4.68% was used. Out of which 55.7% received TCA followed by SSRI's 41.3% and other antidepressants 2.9%. But the prevalence of the use of TCA has decreased by30%, whereas the use of SSRI's has increased by 10 folds in the last ten years[39].

Advantages and Disadvantages of SSRIs

Published evidence revealed that Tricyclic antidepressants might be suitable for depressed patients[29] but Selective serotonin reuptake inhibitors are better tolerated. Selective serotonin reuptake inhibitors have very few autonomic adverse effects than Tricyclic antidepressants and less chance of arrhythmias and more safe in diabetes. But a lag period of 2-6 weeks is there before onset of maximum response is seen with most of the antidepressants[37, 40].

Conclusion

According to the drug utilization pattern of antidepressants it was found that Selective serotonin reuptake inhibitors were used in the treatment of depression in most of the cases[41]. It was found that there is a trend of using Typical antidepressants drugs for depression rather than Newer antidepressants. Among the Selective serotonin reuptake inhibitors, psychiatrists have a relatively higher tendency of prescribing Fluoxetine than conventional drugs like Tricyclic antidepressants. Selective serotonin reuptake inhibitors are better tolerated, has very few autonomic adverse effects than Tricyclic antidepressants and less chances of arrhythmias.

Limitation of the study

Sample size of the study was the limitation of the study.

Future scope of study

A multi centered hospital based study with larger sample size required to find out the actual trend of using typical antidepressants and newer antidepressants drugs for depression in Nepal.

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Authors' contributions

IB designed the study, deduced the data, drafted the manuscript, and revised it. BR planned the study with IB, acquired the data, conducted the data analysis, interpreted the data, and revised the manuscript. BS participated in statistical analysis, interpreted the data, and revised the manuscript. IB2, MM and AS critically revised the manuscript. All the authors approved the final document.

Conflict of Interests

The authors do not have any conflict of interest arising from the study.

What this study adds

By means of this study one is expected to acquire an idea concerning clinician's preference to antidepressants drugs in an actual clinical setup.

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