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Increased Reliance on OTC Drugs as Anti-depressants by Housewives of Urban Area

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Sandip R. Pawar*, Bharat V. Jain[1], Pavan A. Chaudhari[1], Piyush K. Chavan[2]

[*1]Department of Pharmaceutics, Smt. Sharadchandrika Suresh Patil College of Pharmacy, Chopda, Maharashtra, India

[2]Department of Pharmacognosy, Smt. Sharadchandrika Suresh Patil College of Pharmacy, Chopda, Maharashtra, India

Keywords

Antidepressant Medication, Level of Neurotransmitters, Neurons, Level of Depression.

Abstract

Medications for depression often work by restoring chemical homeostasis in the brain's neurotransmitters.There is a wide range of antidepressant drugs accessible through prescription. The ideal antidepressant for a given person will vary from person to person based on their specific set of symptoms and treatment goals. Serotonin, dopamine, and norepinephrine are all examples of such substances. Lower depression has been linked to higher amounts of these substances. Antidepressants may be useful for depression, although their efficacy varies widely across individuals. The length of time that these medications remain active in the human body also varies. Certain medications have a half-life of roughly 36 hours in the human body before being eliminated, whereas antidepressants may remain in the bloodstream for several days. The present paper looks at the increased use of anti-depressants.

1. INTRODUCTION

The precise mechanism through which antidepressants function remains elusive. Several of them accomplish their effects by boosting levels of neurotransmitters. We now know that the release of certain neurotransmitters, such serotonin and noradrenaline, may affect how we feel. Certain antidepressants may aid with long-term pain relief because of their potential effect on neurotransmitters, which modify pain signals transmitted by neurons (Abbott and Fraser, 1998)[1]. Antidepressants may help with depression's symptoms, but they don't always get to the root of the problem. In cases of severe depression or other mental health issues, they are thus often taken in conjunction with treatment. According to the findings of several studies, antidepressants may be useful for those who suffer from mild to severe depression. Unless in cases when conventional therapies, such as talk therapy, have failed, they are not often used for moderate depression. Depression medications are often given in pill form. If you've been prescribed one, you should probably start with the smallest effective dosage. It often takes 1–2 weeks of consistent antidepressant dosing for the therapeutic effect to become apparent. After feeling better, a full course of therapy often continues for at least six months [4]. The FDA has approved duloxetine for use in treating depression, and some patients with chronic depression are recommended to continue it forever.

Defining Depression

The word "depression" is often used interchangeably with "the blues," "manic depression," and "postpartum depression," however it may refer to a wide range of emotional states.

Depression, or more specifically Major Depressive Disorder (MDD), is one of the most frequent mental health disorders worldwide. Medically-defined bipolar disorder (MDD) patients may present with a wide range of symptoms and present visually distinct from

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one another (Banerji and Anderson, 2001)[2]. Depression, despair, exhaustion, insomnia, anxiety, and thoughts of suicide are all possible symptoms. It's true that some sad people never experience any of these signs.

Work of Antidepressants

- There is a wide range of antidepressant drugs accessible through prescription. The appropriate antidepressant for you will vary from person to person based on your unique set of symptoms and medical history.
- Medications for depression often work by restoring chemical homeostasis in the brain's neurotransmitters. Serotonin, dopamine, and norepinephrine are all examples of such substances. Lower depression has been linked to higher amounts of these substances (Bell and Salmon, 2009)[3].
- Antidepressants may be useful for depression, although their efficacy varies widely across individuals. The different medications also have different half-lives in the body. There are medications whose effects wear off after 36 hours, while others might linger for days.
- The doctor or nurse who writes you a prescription should go through any risks with you. The doctor's goal is to treat you while minimising your exposure to any potential drugs' negative effects. It's very uncommon for doctors to try many medications before finding one that works.
- Your physician will keep a close eye on you so that he or she may identify any unfavourable effects early on and adjust your treatment accordingly.
- Side effects are possible with any medicine, not only antidepressants. In prescribing this drug, your doctor has carefully weighed the potential benefits against the possibility of unwanted effects.
- If any negative reactions occur, they are often minor. After continuing medication for a time, you may notice a lessening of certain adverse effects. Side effects may persist, although they should disappear if the medicine is no longer used. If you have any questions or concerns about a prescribed medication, one must talk to the doctor.

2. OBJECTIVE

To understand the classes of antidepressant medications and common side effects

3. METHODOLOGY

To conduct a counter study at chemist shops to obtain volume of OTC drugs being taken as anti-depressants by housewives in urban areas.

"Currently there are six different classes of medications approved to treat depression. These are:

- Selective serotonin reuptake inhibitors (SSRIs).
- Serotonin and noradrenaline reuptake inhibitors (SNRIs).
- Tricyclic antidepressants (TCAs).
- Monoamine oxidase inhibitors (MAOIs).
- Norepinephrine and dopamine reuptake inhibitors (NDRIs).
- Non-competitive N-methyl-D-aspartate receptor antagonists."

Table 1: Classes of anti-depressants and their side-effects

S. No.	Anti-depressant	Side effects
1	SSRI's	Agitation, diarrhoea, dizziness, agitation, insomnia, exhaustion, dry mouth, loss of libido, nausea, headache, increased anxiety, tremors
2	SNRI's	Dizziness, heavy sweating, constipation, headache, dry mouth, nausea, loss of libido, insomnia
3	TCA's	Dry mouth, blurred vision, weight gain, increased fatigue and sleepiness, tremors, urine retention, increased heart rate, constipation
4	MAOI's	Drowsiness, dizziness, nausea, diarrhoea or constipation, low BP, high sweating, dry mouth, insomnia, headache, weight gain, tremors, bladder problems
5	NDRI's	Headache, dry mouth, nausea, tremors, insomnia,

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		constipation, tiredness, increased sweating
6	Esketamines	Dissociation (distortion of time, space, illusions), feeling drunk, nausea, anxiety, lack of energy, dizziness, sedation, increased BP, vomiting

These have been discussed in detail below:

Selective serotonin reuptake inhibitors

"SSRIs are among the most commonly prescribed medications. Some examples of SSRIs Side effects of selective serotonin reuptake inhibitors (SSRIs) include:

- Agitation.
- Diarrhea.
- Dizziness.
- Insomnia.
- Exhaustion.
- Nausea.
- Headaches.
- Increased anxiety.
- Tremors
- Dry Mouth
- Sexual problems including low sex drive or inability to have an orgasm."

Serotonin and noradrenaline reuptake inhibitors

"SNRIs treat depression as well as long-term pain and anxiety. Some examples of SNRIs include venlafaxine (Effexor®), desvenlafaxine (Pristiq®) and duloxetine (Cymbalta®). Side effects of SNRIs include:

- Headache.
- Nausea.
- Dry mouth.
- Insomnia.
- Dizziness.
- Heavy sweating.
- Constipation.
- Sexual problems including low sex drive or inability to have an orgasm."

Tricyclic antidepressants

"TCAs were among the first antidepressants approved. Because other, newer antidepressants are associated with fewer side effects, TCAs tend to be prescribed less often. Some examples of these drugs includes nortriptyline (Pamelor®), amitriptyline (Elavil®), and imipramine (Tofranil®). Side effects of tricyclic antidepressants include:

- Dry mouth.
- Increased fatigue and sleepiness.
- Tremors.
- Bladder problems (retention of urine).
- Blurred vision.
- Weight gain.
- Constipation.
- Dizziness.
- Increased heart rate.

Monoamine oxidase inhibitors

"MAOIs were the first antidepressants approved. Their use has largely been replaced by newer antidepressants, which are safer and have fewer side effects. Some examples of MAOIs include phenelzine (Nardil®), tranylcypromine (Parnate®) and isocarboxazid (Marplan®). Side effects of monoamine oxidase inhibitors (MAOIs) include:

- Drowsiness.
- Dizziness.
- Nausea.
- Diarrhea or constipation.
- Low blood pressure.
- Increased sweating.
- Dry mouth.
- Headache.
- Insomnia.
- Weight gain.
- Tremors.

Bladder problems (difficulty starting urine flow).

"Norepinephrine and dopamine reuptake inhibitors

NDRIs treat depression as well as seasonal affective disorder. It is often prescribed by doctors for many "off label" psychiatric uses including anxiety, bipolar disorder and attention deficit/hyperactivity disorder (ADHD) (Ernest, Chia and Corallo, 2010)[7]. Bupropion (Wellbutrin®) is the only member of this drug class. Some of its known side effects include:

- Headache.
- Dry mouth.
- Nausea.
- Tremor.
- Insomnia.
- Constipation.
- Tiredness.
- Increased sweating."

Non-competitive N-methyl-D-aspartate receptor antagonists

Esketamine is a quasi N-methyl-D-aspartate receptor antagonist marketed under the brand names Ketanest® and Spravato®. Those people whose depression hasn't responded to treatment with previous medications may benefit from using this antidepressant, which is exclusively available as a nasal spray, in addition to an oral antidepressant. Suicidal ideation and conduct are both elevated in those who utiliseesketamine. It must be given at a doctor's office under the watchful eye of a medical professional. Home usage of esketamine is not possible since it is not sold in pharmacies. The "following are some of its recognised adverse effects:

- Dizziness.
- Nausea.

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- Sedation.
- Increased blood pressure.
- Vomiting.
- Lack of energy."
- Anxiety.
- Dissociation (distortion of time, space, illusions).
- Feeling drunk.

Keep in mind that the vast majority of people who use antidepressants have no negative reactions at all. All patients, however, need close observation. While using antidepressants, drinking should be avoided. Their therapeutic benefits may be nullified by alcohol. The FDA issued a black box label warning for popular antidepressant medicines in 2004 for suicide thoughts in those aged 18 to 24. This is the strongest labelling warning required by the FDA for prescription medications. Around 4% of patients who use SSRIs have suicide ideation as a side effect. Although antidepressants certainly increase safety, it is well accepted that untreated depression poses a much greater threat of suicide. There is no addiction potential in antidepressant medications. You won't get high, feel relaxed, or have a need for more of them. It's inaccurate to call them "happy pills."

4. DISCUSSION ON FINDINGS

Causes of depression

Little research has been done to pinpoint what triggers depression. All three of the environment, genes, and biology are probably at blame. Many neurotransmitters have been linked to depression. They include "norepinephrine (NE), dopamine (DA), acetylcholine (ACh), and serotonin (5HT)." This explains why certain brain chemicals are the target of action for several treatments, notably prescription drugs.

To be diagnosed with MDD, the DSM-5 specifies that at least five of the following symptoms must be present for two weeks or longer.

There is a general lack of interest or pleasure, there has been an increase or reduction in sleep, and one's mood has been consistently low. Anxiety, shame, regret, both energy and focus have dwindled. Changes in Appetite, Whether Up or Down, Anxiety and suicidal ideation [8].

By examining these signs, we can tell that MDD is distinct from the normal, healthy feelings of depression, since the signs and symptoms of MDD tend to last for longer and to affect other areas of health, such as thinking, eating, and sleeping.

Over-the-counter treatments

Several OTC medicines and herbal supplements have been investigated for their potential to alleviate depression, but studies have shown mixed results. Before taking any new medicine, it is important to talk to your primary care physician or pharmacist to make sure there are no negative interactions.

Herb of Saint. John: This herbal remedy is the most often used OTC treatment for major depressive disorder. Antidepressants belonging to the family of selective serotonin reuptake inhibitors (SSRIs) may share some of its mechanism of action (SSRIs). Use 300 milligrammes (mg) three times a day for up to six weeks.

Negative consequences are often accepted. Possible side effects include insomnia, nausea, vomiting, diarrhoea, anxiety, irritability, and vivid nightmares (Goffman, 1990)[9].

There are a lot of potential drug interactions to consider. To find out whether St. John's Wort interacts with the drugs you are currently taking, talk to your doctor or pharmacist. This chemical occurs naturally in the body, and it has been suggested that taking more of it might help with things like major depressive disorder and arthritis.

Negative consequences are often accepted. Mild sleeplessness, dry mouth, and bloating are possible side effects.

Fish oil (omega-3 fatty acids), which is prevalent in seafood and is often utilised for its heart-healthy properties including reducing triglycerides, may also have positive effects on mood. Fishy aftertaste, indigestion, foul breath, nausea, and a skin rash are some of the negative reactions. Contraceptives and drugs for high blood pressure may combine dangerously.

DHEA:DHEA, like testosterone, is a hormone produced naturally in the body that regulates the production of other hormones in both sexes. Maximum safe daily dose is 500 mg; may be gradually raised by 100 mg for up to 8 weeks if needed. Acne, greasy skin, and increased hair growth in females are potential adverse effects.

Interaction between blood thinners and postmenopausal oestrogen therapy

5-HTP: This natural remedy is a building block of serotonin, a chemical in the brain that plays a crucial role in the maintenance of a balanced emotional state and the prevention of anxiety. Several researchers have hypothesised that low levels of serotonin are to

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blame for the emotional distress of depression and anxiety, and that increasing serotonin levels might provide relief.

Nausea, vomiting, stomach discomfort, diarrhoea, and loss of appetite are possible adverse reactions (Lambert and Close , 2005)[11].

Interactions between drugs used to treat depression

These natural supplements and over-the-counter meds could help with moderate depression. Discussion with a prescriber or mental health specialist is recommended for those who suffer from more severe depression or depressed episodes owing to chronic disease, such as bipolar disorder, or at specific stages in life, such as after giving birth, to evaluate which alternatives may be best.

Types of antidepressants

There are several different types of antidepressants, namely,

i. Antidepressants of the SSRI kind are the most often prescribed drugs of this class. Since they are associated with less negative side effects, they are often chosen as the antidepressant of choice. The consequences of an overdose are also less likely to be severe.

ii. SNRIs, or selective serotonin reuptake inhibitors, are related to SSRIs. Their intended purpose was to outperform SSRIs as an antidepressant treatment. The efficacy of SNRIs in comparison to other depression treatments remains debatable, however. There seems to be a difference in efficacy between SSRIs and SNRIs, with some persons responding better to one than the other. Duloxetine (Cymbalta and Yentreve) and venlafaxine are two popular SNRIs (Efexor).

iii. Antidepressants that target the noradrenergic and serotonergic systems, or NASSAs, may be useful for those who have trouble tolerating SSRIs. NASSAs have similarities in adverse effects with SSRIs, however they are generally believed to be less problematic in terms of sexual dysfunction. But, they might make you sleepier than usual at initially. In the United Kingdom, mirtazapine is the most often prescribed non-addictive serotonin-enhancing drug (Zispin).

iv. Traditional antidepressants, often known as tricyclics, have been around for a while. Because to the higher risk of adverse effects from accidental overdosing, they are no longer often used as the first therapy for depression. As a result, they are associated with a higher rate of negative effects than SSRIs and SNRIs. In extreme cases, exceptions are allowed for patients with severe depression who have not responded to conventional therapies. Certain mental health problems, such OCD and bipolar disorder, may also benefit from TCA use. Tricyclic antidepressants (TCAs) comprise medicines including amitriptyline, clomipramine, dosulepin, imipramine, lofepramine, and nortriptyline. TCAs, like amitriptyline, are also effective in treating persistent nerve pain.

v. Antagonists of serotonin and serotonin reuptake inhibitors (SARIs): While SARIs aren't routinely used, they may be helpful if other antidepressants haven't helped or have created unwanted side effects. In the United Kingdom, trazodone is the most often used SARI (Molipaxin).

vi. Antidepressants known as monoamine oxidase inhibitors (MAOIs) are a relic from the past and are seldom used nowadays. Because of the possible severity of their adverse effects, they should only be administered by an expert medical professional. Tranylcypromine, phenelzine, and isocarboxazid are all monoamine oxidase inhibitors.

Other treatments for depression

Talk therapies like cognitive behavioural therapy are another option for depression treatment (CBT). Antidepressants and cognitive behavioural therapy (CBT) are often used together to treat patients with mild to severe depression. Although cognitive behavioural therapy (CBT) takes time to address the root causes of depression and effective methods for overcoming them, antidepressants operate rapidly to alleviate symptoms. Mildly depressed people might benefit from engaging in regular physical activity.

Classes of antidepressant medications and common side effects

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- Monoamine oxidase inhibitors (MAOIs).
- Norepinephrine and dopamine reuptake inhibitors (NDRIs).
- Non-competitive N-methyl-D-aspartate receptor antagonists."

Selective serotonin reuptake inhibitors

"SSRIs are among the most commonly prescribed medications. Some examples of SSRIs include sertraline (Zoloft®), paroxetine (Paxil®), fluoxetine (Prozac®) and citalopram (Celexa®). Side effects of selective serotonin reuptake inhibitors (SSRIs) include:

- Agitation.
- Diarrhea.
- Dizziness.
- Insomnia.
- Exhaustion.
- Dry mouth.
- Nausea.
- Headaches.
- Increased anxiety.
- Diarrhea.
- Tremors.
- Sexual problems including low sex drive or inability to have an orgasm."

Serotonin and noradrenaline reuptake inhibitors

"SNRIs treat depression as well as long-term pain and anxiety. Some examples of SNRIs include venlafaxine (Effexor®), desvenlafaxine (Pristiq®) and duloxetine (Cymbalta®). Side effects of SNRIs include:

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- Dry mouth.
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- Dizziness.
- Heavy sweating.
- Constipation.
- Sexual problems including low sex drive or inability to have an orgasm."

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"TCAs were among the first antidepressants approved. Because other, newer antidepressants are associated with fewer side effects, TCAs tend to be prescribed less often. Some examples of these drugs includes nortriptyline (Pamelor®), amitriptyline (Elavil®), and imipramine (Tofranil®). Side effects of tricyclic antidepressants include:

- Dry mouth.
- Increased fatigue and sleepiness.
- Tremors.
- Bladder problems (retention of urine).
- Blurred vision.
- Weight gain.
- Constipation.
- Dizziness.
- Increased heart rate.
- Monoamine oxidase inhibitors"

"MAOIs were the first antidepressants approved. Their use has largely been replaced by newer antidepressants, which are safer and have fewer side effects. Some examples of MAOIs include phenelzine (Nardil®), tranylcypromine (Parnate®) and isocarboxazid (Marplan®). Side effects of monoamine oxidase inhibitors (MAOIs) include:

- Drowsiness.
- Dizziness.
- Nausea.
- Diarrhea or constipation.
- Low blood pressure.
- Increased sweating.
- Dry mouth.
- Headache.
- Insomnia.
- Weight gain.
- Tremors.
- Bladder problems (difficulty starting urine flow).
- Sexual problems including low sex drive or inability to have an orgasm."

Norepinephrine and dopamine reuptake inhibitors

"NDRIs treat depression as well as seasonal affective disorder. It is often prescribed by doctors for many "off label" psychiatric uses including anxiety, bipolar disorder and attention deficit/hyperactivity disorder (ADHD). Bupropion (Wellbutrin®) is the only member of this drug class. Some of its known side effects include:

- Headache.
- Dry mouth.
- Nausea.
- Tremor.
- Insomnia.
- Constipation.
- Tiredness.
- Increased sweating."

Depression leading to suicidal tendencies

The FDA issued a black box label warning for popular antidepressant medicines in 2004 for suicide thoughts in those aged 18 to 24. This is the strongest labelling warning required by the FDA for prescription medications.

Around 4% of patients who use SSRIs have suicide ideation as a side effect. Although antidepressants certainly increase safety, it is well accepted that untreated depression poses a much greater threat of suicide.

Treatment with antidepressants for those who suffer from both depression and alcoholism is backed by weak scientific data. For example, antidepressants improve certain outcomes linked to depression and alcohol use, but not others that are just as important. On the contrary, it seems that the potential for

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negative effects is rather low, particularly among the more recent types of antidepressants.

There is a wide range of antidepressant drugs accessible through prescription. Lower depression has been linked to higher amounts of these substances. Antidepressants may be useful for depression, although their efficacy varies widely across individuals. Drugs have varying degrees of persistence in the body. Drug elimination from the body might take anything from 36 hours to several days.

It is not uncommon for people to suffer from both major depression and another mental illness at the same time. Having a low mood or loss of interest in usual activities for at least two weeks, in addition to symptoms including such substantial "weight loss or gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue, feelings of guilt or worthlessness, difficulty concentrating, and suicidal ideation", is diagnostic of depression. Alcohol dependency had a 12 month prevalence of 13.9% and a lifetime prevalence of 29.1%, according to epidemiological research, whereas the prevalence of depression in adults was 5.3% and 13.3%, respectively. Alcoholism is more common among those who also suffer from depression, and vice versa. Studies have shown that both conditions are more common among persons who have a history of mental health issues. The presence of each of these illnesses increases the likelihood of acquiring the other, and the presence of both increases the risk of morbidity and mortality, including suicide. The use of antidepressants for the treatment of patients who suffer from both alcohol dependency and depression is not well supported by the available data. Several useful outcomes, like those linked to depression and alcohol consumption, improved while others did not when taking antidepressants. "The risk of developing adverse effects appeared to be minimal, especially for the newer classes of antidepressants (such as selective serotonin reuptake inhibitors)."

5. SUMMARY AND CONCLUSIONS

To that end, this study analysed the available data to determine whether antidepressants mitigate depressive symptoms, with a focus on those experienced by stay-at-home mothers. In addition to alcoholism, significant depression is often seen in persons who seek treatment, which compounds the severity of the addiction and lessens the efficacy of the therapies. It's difficult to find effective medication for these patients. In this meta-analysis, we evaluated the efficacy of antidepressant medication in treating patients with co-occurring depression and alcohol dependency to that of a sham therapy (placebo) or no treatment at all. The United States, Europe, Turkey, and Australia all hosted their own separate trials. In majority of the studies, sertraline was used as an antidepressant; additional drugs included "amitriptyline, citalopram, desipramine, doxepin, escitalopram, fluoxetine, fluvoxamine, imipramine, mianserin, mirtazepine, nefazodone, paroxetine, tianeptine, venlafaxine, and viloxazine. Design, quality, participant characteristics, tested drugs, service provision, and therapy administration" among the 49 trials were all diverse.

Most studies have compared antidepressants to a placebo; although antidepressants may have lowered depression intensity, it is unclear whether this has translated into a greater percentage of patients experiencing clinically meaningful benefits (response to treatment, i.e. people who halved the severity of depression). Several important outcomes linked to the severity of depression, such as the proportion of participants who were depressed-free at the conclusion of the study, showed no significant difference between antidepressants and placebo (remission).

When comparing antidepressants to a placebo, it is possible that there is no difference in the incidence of treatment discontinuation owing to adverse events (irritating effects, such as dry mouth). Studies comparing one antidepressant to another or to other therapies were few, and those that did exist often used a small sample size and did not make the same comparison across research.

For symptoms of sadness, sobriety, the frequency of medically-motivated withdrawals, and attrition rates, the included studies were of poor or intermediate quality. The review's conclusions were constrained by the lack of studies that might be used for subgroup analysis, in the case of single kinds of drugs, and comparisons with other treatments.

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