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AWARENESS, ATTITUDE AND SIGNAL DETECTION OF ANTI-DEPRESSANT AND ANXIOLYTIC DRUGS

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ABSTRACT

Background: Depression and Anxiety have become trending disorder among the people irrespective of age and gender. Research aim is to create awareness among the patients about importance of medication adherence to prevent Adverse event, treatment and adverse event in relation to Anti-Depression and Anxiolytic drugs. Further concentrating on improving their knowledge on adverse event monitoring [ADR] and overlapping of ADR and disease symptoms to improve their quality of life and treatment outcome. **Objectives:** The primary objective of the study is to evaluate Adverse event related to Anti-Depressant and Anxiolytic drugs. Secondary to check the attitude and create awareness on the treatment and the adverse event. **Methodology:** An active surveillance was conducted with the sum 210 Depression and Anxiety patients in particular site and collected the data through response on set of questionnaires and spread the awareness about the adverse event and medication adherence among patients by distributing the leaflets which was provided in both English and Tamil for better understanding along with oral counselling regarding the same. **Result and conclusion:** Among 210 patients, 120 were female and 90 were male. Based on age, Category B [31-50] are more prone to Depression and Anxiety and most patients were aware of the side effect. 22 patients appeared with Adverse event. It was observed that the patients on long term medication had no Adverse effect stating the possibility of resistant to it. Dose of the drug was reduced to the patients who appeared with Adverse event during the period of treatment. Mirtazapine is used for the treatment of depressive disorder.

INTRODUCTION

Depression is a persistent mental disorder with an increase prevalence and its important constituent of disease cargo. Depression is predicted by constant sadness with inability to fulfil daily activities, feeling of worthlessness, despair, guilt or hopelessness and physical harm. It is believed that depression may occurred by formation of either norepinephrine or serotonin or both. Drugs like reserpine can block the secretion of nor epinephrin and serotonin which results in depression. Commonly used drugs in depression are SSRIs [fluoxetine, citalopram, paroxetine].

Major depression is a chronic illness with a high prevalence and is a major component of disease burden. Depressive disorders were the second leading cause of years lived with disability in 2010 in Canada, the United States and globally. When depression-related deaths due to suicide and stroke are considered, depression has the third highest global burden of disease. Major depression is growing in overall disease burden in Canada and around the world; it is predicted to be the leading cause of disease burden by 2030, and it is already the leading cause in women worldwide. Between 1990 and 2010 in Canada, major depressive disorder showed a 75% increase in disability-adjusted life years, the second greatest increase in prevalence after Alzheimer disease; in comparison, the increase in the United States was 43%. At the same time, the female: male ratio of global disability from major depression remained unchanged at 1.7:1. Although differences in socioeconomic factors, including abuse, education and income, may impact the higher rate of depression in women, this editorial focuses on biological contributors that are experimentally tractable and may help to understand how and why depression is more prevalent in women and lead to better treatments.

The prevalence of major depression is higher in women than in men; in 2010 its global annual prevalence was 5.5% and 3.2%, respectively, representing a fold greater incidence in women. In Canada, the prevalence was 5.0% in women and 2.9% in men in 2002 (fold greater incidence in women) and increased to 5.8% and 3.6%, respectively, in 2012 (greater incidence in women). The finding of similar female: male prevalence ratios in developed countries and globally suggests that the differential risk may primarily stem from biological sex differences and depend less on race, culture, diet, education and numerous other potentially confounding social and economic factors. There is no clear evidence that the rate of depression is greater in countries where women have markedly lower socioeconomic status

than men than in countries where there may be more equal footing. Depression is more than twice as prevalent in young women than men (ages 14–25 yr), but this ratio decreases with age. Indeed, starting at puberty, young women are at the greatest risk for major depression and mental disorders globally. Importantly, before puberty, girls and boys have similar rates of depression; the rate is perhaps even higher for boys. At ages older than 65 years, both men and women show a decline in depression rates, and the prevalence becomes similar between them.

A greater prevalence of depression in women is also reflected in prescriptions for antidepressant medications. In Canada between 2007 and 2011, antidepressants were prescribed more than twice as often to women than men (9.3% v. 4.2% in patients aged 25–44 yr, 17.2% v. 8.2% in patients aged 45–64 yr,). The age discrepancy between the peaks in the prevalence of depression (age 14–25 yr) and the prevalence of antidepressant use (> 45 yr) suggests that young adults with depression may not always receive antidepressant treatment until many years after the onset of illness. This delay in medication could contribute to the higher rates of depression during adolescence and young adulthood and would be important to study more rigorously comparing treated and nontreated cohorts. Delay in antidepressant treatment might reflect stigma or underdiagnosis in adolescence. New antistigma and educational programs targeted to youth may help reduce depression in this age group.

Why then is depression more prevalent among women? The triggers for depression appear to differ, with women more often presenting with internalizing symptoms and men presenting with externalizing symptoms. For example, in a study of dizygotic twins, women displayed more sensitivity to interpersonal relationships, whereas men displayed more sensitivity to external career and goal-oriented factors. Women also experience specific forms of depression-related illness, including premenstrual dysphoric disorder, postpartum depression and postmenopausal depression and anxiety, that are associated with changes in ovarian hormones and could contribute to the increased prevalence in women. However, the underlying mechanisms remain unclear; thus, treatments specific to women have not been developed. (Albert PR et al 2015).

Anxiety

Is a mental health disorder which result in excessive nervousness, fear, apprehension, and worry. Anxiety disorder is usually unrecognised and underrated in initial care. The risk factor

causes rise in adrenaline which is a hormone and chemical messenger in the brain. Thus activate their anxious reaction in the process called fight or flight response. When a patient appeared 1with distress or suffer from complication resulting from disorders then the treatment is suggested. It should be treated with psychological therapy or pharmacological therapy pr both. The first line drugs used in Anxiety are SSRIs.

Anxiety provides authoritative and accessible information for the primary care and hospital doctor to assist with treatment decisions. Topics covered include panic disorder, social anxiety disorder, generalized anxiety disorder, obsessive compulsive disorder and posttraumatic stress disorder.

Each title in the Rapid Reference series covers diagnosis, prevention, treatment and management of the disease area. They also contain drug listings, clinical trial information, future developments, FAQs and website listings to keep the reader up to date with the disease area.

With patients becoming better informed about the nature and management of their conditions, Rapid Reference is a timely new series that offers doctors easy access to the best information for patient care and management.

Expert information succinctly written for ease of use.

- Abundant use of bulleted lists and short tables, for quick access to comparative information.
- Presents evidence-based sources for practice where available, either through research or best-practice guidelines.
- Frequently Asked Questions chapter helps practitioners prepare for patient visits and provide better patient care.
- Drugs appendix lists available drugs, with contraindications and side effects.

Useful addresses and websites appendix provide additional resources for both the physician and patient.(Bellenger JC et al 2000)

History

Depression is a disorder which always have been a centre of attention of researchers in India. In last 50-60 years lots of researches have been made published from India focusing various

features of this prevalence disorder. These includes study of epidemiology, demographic and psycho-social risk factor and neurobiology, symptomatology, Comorbidity, assessment, diagnosis and depression and treatment associated problem and presentation of depression moreover to the efficiency and tolerability of several antidepressants.

Depression was second prime root lived with disability in 2010 in Canada, US and worldwide. Depression is third highest worldwide cargo of disease while considering the depression associated deaths caused by suicide and stroke. Depression appeared with 75%. rise in disability altered life in 1990 and 2010 in Canada, and the second substantial prevalence after Alzheimer disease.

It was 19th Century German psychiatrist Emil Kraepelin who began referring to various forms of melancholia as "depressive states," due to the low mood that defines it. Kraepelin also took a dual approach to mental illness, separating depression into two categories: manic depression and dementia praecox. Kraepelin's distinction was based on whether the depression's source was external or internal: if the depression was caused by an external tragedy, such as the death of a loved one, it was considered a form of manic depression and expected to be episodic and passing.

However, depression that did not stem from a known, external cause was understood to have "grown" out of the individual's psyche, and as such was considered a break from reality that is similar to present-day schizophrenia.

The distinction Kraepelin made between both types of depression is still relevant today: many patients continue to recount how people are more willing to offer sympathy if the source of their depression is clearly understood: as such, an individual whose depression was caused by witnessing a traumatic event is likely to receive more social support than someone whose depression appeared during adolescence. The term depression was derived from the Latin verb deprimere, "to press down".

From the 14th century, "to depress" meant to subjugate or to bring down in spirits. It was used in 1665 in English author Richard Baker's Chronicle to refer to someone having "a great depression of spirit", and by English author Samuel Johnson in a similar sense in 1753. The term also came into use in physiology and economics. An early usage referring to a psychiatric symptom was by French psychiatrist Louis Delasiauve in 1856, and by the 1860s

it was appearing in medical dictionaries to refer to a physiological and metaphorical lowering of emotional function. Since Aristotle, melancholia had been associated with men of learning and intellectual brilliance, a hazard of contemplation and creativity. The newer concept abandoned these associations and, through the 19th century, became more associated with women. Although melancholia remained the dominant diagnostic term, depression gained increasing currency in medical treatises and was a synonym by the end of the century; German psychiatrist Emil Kraepelin may have been the first to use it as the overarching term, referring to different kinds of melancholia as depressive states.

Gender and Age

In the past several decades, gender differences in depression have been extensively discussed. A few studies have found the gender difference in depression to be small or absent, and no gender difference has been indicated in psychotic or melancholic depression. However, most studies have confirmed that depression is twice as common in women than in men, which has been reported across different cultures. Depression is disproportionately reported by women (almost twice as often as by men) during reproductive age. For example, the worldwide annual prevalence of depression in 2010 for females and males was 5.5 and 3.2%, respectively (i.e., 1.72 vs. 1). In Canada, the prevalence was 5.0% in women and 2.9% in men in 2002 (i.e., 1.72 vs. 1), and it increased to 5.8% in women and 3.6% in men in 2012 (i.e., 1.61 vs. 1). In the USA, women had an higher risk of depression than men, with 21.3% of women and 12.9% of men experiencing major depressive episodes during their lifetimes. In a cross-sectional study of Pakistan, the majority (78.9%) of people diagnosed with major depression were women. Consistently, a review of studies between 1994 and 2014 with community participants from 30 countries showed that the point prevalence of depression in the community was significantly higher in females (14.4%) compared with males (11.5%) (i.e., 1.25 vs. 1).

Even in specific populations, a female preponderance of depression has been confirmed. Among students of pedagogy, 9.42% of females reported depression, compared with 1.23% males (i.e., 7.66 vs. 1). In Polish adolescents, being female was reportedly a major risk factor for depression. In a study of individuals with diabetes, the prevalence of comorbid depression was significantly higher in women (28%) than in men (18%) (i.e., 1.56 vs. 1), which was further confirmed by a later review. In a similar cross-sectional study conducted in a gastroenterology clinic, compared with males, females reported more symptoms of

depression (44 vs. 32%) (i.e., 1.38 vs. 1). In brief, women have reported depression and been diagnosed with depression substantially more often than men. (Shi p et al 2021).

Diagnosis of Depression and Anxiety

The symptoms of depression and Anxiety are difficult to differentiate even with established criteria for diagnosis DSM 5 and over rule the symptoms of Anxiety and Panic regularly coexist with that of depression and further overlapping of symptoms of psychtic drugs. When these disorders are examined, a specifically study association between panic and depression appears. The prognosis worsens and treatment gets complicated when Anxiety and Depressive disorder as it is coexisting with the symptoms of the other.

Diagnosis of depression and anxiety: An assessment of the long-term outcome for depression and anxiety disorders in a general population was made as part of the Stirling County Study. Measuring outcome as a dichotomy between experiencing recurrent episodes or not during a 17-year cohort interval, it was found that 56% of the 'cases' had a poor prognosis. While sex, age and level of severity were not significantly related to outcome, an initial diagnosis of depression was predictive of unfavourable prognosis. Only a few of these 'cases' received psychiatric specialty treatment. Some disorders in the community appear, however, to be as serious as those that come to the attention of psychiatrists.

Your doctor may determine a diagnosis of depression based on.

Physical exam. Your doctor may do a physical exam and ask questions about your health. In some cases, depression may be linked to an underlying physical health problem.

Lab tests. For example, your doctor may do a blood test called a complete blood count or test your thyroid to make sure it's functioning properly.

Psychiatric evaluation. Your mental health professional asks about your symptoms, thoughts, feelings and behavior patterns. You may be asked to fill out a questionnaire to help answer these questions.

DSM-5. Your mental health professional may use the criteria for depression listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), published by the American Psychiatric Association.(Dalle gulledge et al 1988)

Symptoms of Depression and Anxiety

Depression: Sleep problem, feeling sad and tearfulness, hopelessness, loss of appetite, or other eating issues, lack of energy, loss of concentration, problems with self-image or confidence, ongoing thoughts of death or suicide.

Anxiety: Feeling nervous, restless or tense, having a sense of impending danger, panic or doom, having an increased heart rate, breathing rapidly, sweating, trembling, feeling weak or tired, trouble concentrating or thinking about anything other the present worry.

It's not at all unusual to feel sad, low, or hopeless from time to time, especially during difficult or painful life situations.

But feelings of sadness and emptiness that last for longer than 2 weeks can suggest depression, especially when positive events or changes in your environment don't seem to have any impact on your mood.

Along with a low, sad, or empty mood, depression can also involve the following symptoms. loss of interest or enjoyment in your usual activities and hobbies a sense of hopelessness or pessimism anger, irritability, and restlessness a lack of energy or a sense of feeling slowed down chronic fatigue or sleep problems changes in appetite and weight difficulty concentrating, making decisions, or remembering information unexplained aches and pains or gastrointestinal concerns feelings of guilt, worthlessness, or helplessness thoughts of suicide, death, or dying.

Most people experience some anxiety — feelings of fear, nervousness, and worry — from time to time. Anxiety is part of how you respond to stress, after all, so you might experience some anxiety.

- Before major life events
- When making important decisions
- When trying something new

But if you experience persistent or extreme anxiety on most days for several months, you could have generalized anxiety disorder (GAD) or another anxiety disorder.

Anxiety disorders go beyond worry about unexpected or challenging life circumstances. Your fears might center around more everyday concerns, such as your health, performance at

school and work, or relationships. These worries can prompt lingering thoughts and fears that eventually begin to affect daily life.

The main signs of ongoing anxiety include

- Difficulty managing fear and worry
- Irritability, physical restlessness, or a sense of being on edge
- A sense of dread, doom, or panic
- Sleep problems
- Persistent fatigue
- Brain fog
- Physical symptoms like headaches, muscle tension, nausea, and diarrhea

Overlapping symptoms

While it's important to remember not everyone with depression, anxiety, or both conditions will experience the same set of symptoms, the two conditions commonly involve several of the same symptoms.

Symptoms you could experience with either condition include

- Changes in sleep patterns
- Changes in energy level
- Increased irritability
- Trouble with concentration, focus, and memory
- Aches and pains or stomach issues that have no clear cause

Rumination can also happen with both conditions. In basic terms, rumination refers to a persistent loop of dark, sad, or other negative thoughts. You may not want these thoughts, but you still can't seem to stop thinking them.

With anxiety, you might find yourself.

- stuck in a cycle where you explore, over and over, all the possible ways a situation could go wrong
- unable to stop thinking about all the things worrying you, even when you know you can't do anything about them.

With depression, you might find yourself fixating on guilt about not having energy to spend time with friends going over and over past events and blaming yourself for things you have no control over, including feelings of depression.

The symptoms of depression can be complex and vary widely between people. If you're depressed, you may feel sad, hopeless and lose interest in things you used to enjoy.

The symptoms persist for weeks or months and are bad enough to interfere with your work, social life and family life.

There are many other symptoms of depression and you're unlikely to have all of those listed on this page.

Psychological symptoms

The psychological symptoms of depression include

- continuous low mood or sadness
- feeling hopeless and helpless
- having low self-esteem
- feeling tearful
- feeling guilt-ridden
- feeling irritable and intolerant of others
- having no motivation or interest in things
- finding it difficult to make decisions
- not getting any enjoyment out of life
- feeling anxious or worried
- having suicidal thoughts or thoughts of harming yourself
- Physical symptoms

The physical symptoms of depression include

- moving or speaking more slowly than usual
- changes in appetite or weight (usually decreased, but sometimes increased)
- constipation
- unexplained aches and pains
- lack of energy

- low sex drive (loss of libido)
- disturbed sleep – for example, finding it difficult to fall asleep at night or waking up very early in the morning
- Social symptoms

The social symptoms of depression include

- avoiding contact with friends and taking part in fewer social activities
- neglecting your hobbies and interests
- having difficulties in your home, work or family life
- Severities of depression

Depression can often come on gradually, so it can be difficult to notice something is wrong. Many people try to cope with their symptoms without realising they're unwell. It can sometimes take a friend or family member to suggest something is wrong.

Doctors describe depression in adults as either less severe (mild) or more severe (moderate or severe), based on.

The symptoms, including how often you get symptoms and how bad they are

- how long depression lasts
- the impact on your daily life.

A few people with severe depression may have symptoms of psychosis.[7] Awareness and Treatment of Depression and Anxiety.

Depression and Social Anxiety is strongly associated with functional impairment, feelings of social isolation, and suicidal ideas compare to participants without other social anxiety, those with social anxiety are significantly more likely to report that financial barriers uncertainly over where to go for help and fear of what others might think or say prevented them from seeking treatment.

Diagnosis and treatment of depression and anxiety is a challenge in aspect of practicing medicine in the primary care setting. Patients are usually seen with somatic complaints rather than classic psychiatric symptoms. In addition, there is a notable overlap between Depression and Anxiety in the patients, Both Depression and Anxiety is often more resistant to pharmacological treatment. Many new therapies are available to assist the clinician. SSRIs

and SNRIs have been quite extensively in these patients.

Until recently for Depression, TCA's and MAOIs were used but it has significant adverse effect and toxicity. Hence newer drugs like SSRIs, SNRIs are more suitable than the older one because of wide therapeutic use, decrease ADR and toxicity.

For the past many years Diazepam is currently most widely prescribed BZD but Alprazolam is currently most commonly used drug because of its lower incidence of sedation. Alprazolam often reduces panic attack at the daily dose of 1.5 to 10mg.

Medications and psychotherapy are effective for most people with depression. Your primary care doctor or psychiatrist can prescribe medications to relieve symptoms. However, many people with depression also benefit from seeing a psychiatrist, psychologist or other mental health professional.

If you have severe depression, you may need a hospital stay, or you may need to participate in an outpatient treatment program until your symptoms improve.
Here's a closer look at depression treatment options.

Medications

Many types of antidepressants are available, including those below. Be sure to discuss possible major side effects with your doctor or pharmacist.

Selective serotonin reuptake inhibitors (SSRIs). Doctors often start by prescribing an SSRI. These drugs are considered safer and generally cause fewer bothersome side effects than other types of antidepressants. SSRIs include citalopram (Celexa), escitalopram (Lexapro), fluoxetine (Prozac), paroxetine (Paxil, Pexeva), sertraline (Zoloft) and vilazodone (Viibryd).

Serotonin-norepinephrine reuptake inhibitors (SNRIs). Examples of SNRIs include duloxetine (Cymbalta), venlafaxine (Effexor XR), desvenlafaxine (Pristiq, Khedezla) and levomilnacipran (Fetzima).

Atypical antidepressants. These medications don't fit neatly into any of the other antidepressant categories. They include bupropion (Wellbutrin XL, Wellbutrin SR, Aplenzin, Forfivo XL), mirtazapine (Remeron), nefazodone, trazodone and vortioxetine (Trintellix).

Tricyclic antidepressants. These drugs — such as imipramine (Tofranil), nortriptyline (Pamelor), amitriptyline, doxepin, trimipramine (Surmontil), desipramine (Norpramin) and protriptyline (Vivactil) — can be very effective, but tend to cause more-severe side effects than newer antidepressants. So tricyclics generally aren't prescribed unless you've tried an SSRI first without improvement.

Monoamine oxidase inhibitors (MAOIs). MAOIs — such as tranylcypromine (Parnate), phenelzine (Nardil) and isocarboxazid (Marplan) — may be prescribed, typically when other drugs haven't worked, because they can have serious side effects. Using MAOIs requires a strict diet because of dangerous (or even deadly) interactions with foods — such as certain cheeses, pickles and wines — and some medications and herbal supplements. Selegiline (Emsam), a newer MAOI that sticks on the skin as a patch, may cause fewer side effects than other MAOIs do. These medications can't be combined with SSRIs.

Other medications. Other medications may be added to an antidepressant to enhance antidepressant effects. Your doctor may recommend combining two antidepressants or adding medications such as mood stabilizers or antipsychotics. Anti-anxiety and stimulant medications also may be added for short-term use.

Finding the right medication

If a family member has responded well to an antidepressant, it may be one that could help you. Or you may need to try several medications or a combination of medications before you find one that works. This requires patience, as some medications need several weeks or longer to take full effect and for side effects to ease as your body adjusts.

Inherited traits play a role in how antidepressants affect you. In some cases, where available, results of genetic tests (done by a blood test or cheek swab) may offer clues about how your body may respond to a particular antidepressant. However, other variables besides genetics can affect your response to medication.

Other treatment options

For some people, other procedures, sometimes called brain stimulation therapies, may be suggested.

Electroconvulsive therapy (ECT). In ECT, electrical currents are passed through the brain to impact the function and effect of neurotransmitters in your brain to relieve depression. ECT

is usually used for people who don't get better with medications, can't take antidepressants for health reasons or are at high risk of suicide.

Transcranial magnetic stimulation (TMS). TMS may be an option for those who haven't responded to antidepressants. During TMS, a treatment coil placed against your scalp sends brief magnetic pulses to stimulate nerve cells in your brain that are involved in mood regulation and depression (Bande lowB *et.al*., 2017)

Adverse drug reaction [ADR]

Adverse drug reaction (ADR) can be defined as 'an appreciably harmful or unpleasant reaction resulting from an intervention related to the use of a medicinal product; adverse effects usually predict hazard from future administration and warrant prevention, or specific treatment, or alteration of the dosage regimen, or withdrawal of the product'. Since 2012, the definition has included reactions occurring as a result of error, misuse or abuse, and to suspected reactions to medicines that are unlicensed or being used off-label in addition to the authorised use of a medicinal product in normal doses. While this change potentially alters the reporting and surveillance carried out by manufactures and medicines regulators, in clinical practice it should not affect our approach to managing ADRs.

Seminal research undertaken in the late 20th and early 21st century in the USA and the UK demonstrated that ADRs are a common manifestation in clinical practice, including as a cause of unscheduled hospital admissions, occurring during hospital admission and manifesting after discharge. The incidence of ADRs has remained relatively unchanged over time, with research suggesting that between 5% and 10% of patients may suffer from an ADR at admission, during admission or at discharge, despite various preventative efforts.

Inevitably, the event frequency is associated with the method used to identify such events and the majority of ADRs do not cause serious systemic manifestations. Nevertheless, this frequency of potential harm needs to be considered carefully because it has associated morbidity and mortality, can be financially costly and has a potentially negative effect on the prescriber-patient relationship.

Medicines that have been particularly implicated in ADR-related hospital admissions include antiplatelets, anticoagulants, cytotoxics, immune suppressants, diuretics, antidiabetics and antibiotics. Fatal ADRs, when they occur, are often attributable to haemorrhage, the most

common suspected cause being an antithrombotic/anticoagulant co-administered with a non-steroidal anti-inflammatory drug (NSAID).

Classification of adverse drug reactions

Traditionally, ADRs have been classified into two types.

1. Type A reactions – sometimes referred to as augmented reactions – which are 'dose-dependent' and predictable on the basis of the pharmacology of the drug
2. Type B reactions – bizarre reactions – which are idiosyncratic and not predictable on the basis of the pharmacology.

Although still widely quoted, this basic classification does not work for all ADRs, such as with chronic adverse effects associated with cumulative drug exposure (eg osteoporosis with long-term corticosteroid treatment) or withdrawal reactions (eg rebound hypertension with centrally-acting antihypertensive cessation). An alternative and perhaps more comprehensive classification scheme is 'DoTS', which classifies reactions dependent on the Dose of the drug, the Time course of the reaction and relevant Susceptibility factors (such as genetic, pathological and other biological differences). As well as classifying reactions, DoTS has the advantage of being helpful to consider the diagnosis and prevention of ADRs in practice.

Preventing adverse drug reactions

While some ADRs are unpredictable – such as anaphylaxis in a patient after one previous uneventful exposure to a penicillin-containing antibiotic – many are preventable with adequate foresight and monitoring. Preventability (or avoidability) usually refers to when the drug treatment plan is inconsistent with current evidence- based practice or is unrealistic when taking known circumstances into account.10 Epidemiological studies tend to find that between a third and a half of ADRs are (at least potentially) preventable although preventability is much easier to diagnose in hindsight. However, interventions that reduce the probability of an ADR occurring can be an important way to reduce the risk of patient harm.

There are two basic steps that can be followed to prevent an ADR occurring

- Identify the subgroup of patients who are likely to be susceptible to the adverse effect and modify the treatment choice accordingly.
- Ensure the treatment plan mitigates any possible adverse effects.
- Identifying susceptibility

Knowledge of patient susceptibilities can inform your prescribing decision and reduce the risk of an ADR. A patient's medication history will identify any previous ADRs and therefore preclude re-exposure to the drug. In other cases, susceptibility factors such as age, gender, pregnancy status and ethnicity can help predict the risk of an ADR occurring. For example, National Institute for Health and Care Excellence guidance has suggested that patients of African or Caribbean descent should be prescribed an angiotensin-II receptor blocker in favour of an angiotensin converting enzyme (ACE) inhibitor for hypertension because of the risk of ACE inhibitor-induced angioedema. Pharmacogenetics is starting to yield more personalised medicine choices by predicting who is more susceptible to suffer a specific ADR (Table 1).

Table No. 1: Examples of pharmacogenetic susceptibility for drug-specific adverse drug reactions.

Drug/drug class	Pharmacogenetic marker	Additional susceptibility factors	Example of clinical context
Carbamazepine	*HLA B*15:02* (in the populations listed)	Han-Chinese, Thai and Malaysian populations	Marker for carbamazepine-induced Stevens-Johnson syndrome and toxic epidermal necrolysis
Simvastatin	SLCO1B1 (solute carrier organic anion transporter 1B1)	Advanced age, untreated hypothyroidism, Excess physical activity, concomitant medications (eg nfibrates)	Statin-induced rhabdomyolysis (rare) whose risk is four times greater with single defective allele, 16 times greater with two defective alleles
Abacavir	HLA-B*57:01	Higher CD8 cell count at start of therapy	Marker for abacavir- induced hypersensitivity reactions with fever, rash, lethargy and abdominal and acute respiratory symptoms
Thiopurines (Azathioprine and mercaptopurine)	TPMT activity	N/A	1 in 10 individuals are heterozygous (50% normal TPMT activity) and 1 in 300 have completely deficient activity. Thiopurine- induced myelosuppression is associated with TPMT activity.

N/A = not applicable; TPMT = thiopurine methyl transferase

Clinical decision support systems available at the point of care can inform practitioners of any patient specific cautions to treatment or additional monitoring requirements to reduce the risk of harm. A detailed discussion is beyond the remit of this paper, but practitioners should not rely on decision support as systems vary widely in their provision of information from absence of relevant alerts to information overload leading to alert fatigue. (Sourabh kosei *et.al*., 2020)

Medication Adherence

Major Depressive Disorder (MDD) is a prevalent, recurring and disabling condition that poses major challenges in the treatment of affected patients. Among critical issues related to MDD treatment, patients' poor adherence to antidepressant medications plays a crucial role in many cases of nonresponse, acute relapses, recurrences in the long term, and increased morbidity, comorbidity, and mortality. It has been shown that depressive symptoms in MDD and mood disorders, in general, account for the majority of time spent ill despite availability of effective treatments. In particular, analyses of long-time persistence of depressive symptoms in MDD Patients show that earlier ages of onset is associated with greater symptom persistence, particularly in the youngest subjects. Moreover, many studies showed that functional recovery takes longer than syndromal remission, mainly due to residual depressive symptoms, and quality-of-life deficits affect depressed subject for long periods of time, highlighting the need for adequate and persistent antidepressant treatment.

Adherence to medications has been described in two major components: persistence (i.e., taking the medication throughout the intended course of treatment) and compliance (with medical directions). Indeed, the term adherence puts more of a burden on the clinician to form a therapeutic alliance with the patient, to gain concordance with the patient on the therapeutic choice, which thereby increases behavioral compliance and, possibly, enhances the therapeutic effect of the administered medication. Nevertheless, replicated evidence indicates that approximately half of patients receiving care in psychiatric and/or primary care settings are nonadherent to prescribed antidepressants. For example, in a recent study, besides patients who did not complete the first 6 months of treatment continuation, over 50% of subjects who remained in treatment exhibited poor adherence . It was also observed that approximately 25% of patients discontinue antidepressant treatment within 1 month of treatment, and within 3 months of initiating therapy in the 44% of cases.

Nonadherence to antidepressants is a multifactorial phenomenon including both patient-related (e.g., concerns about side-effects, costs of medications, fear of addiction, and cultural and attitudinal issues) and clinician-related factors (e.g., lack of adequate patient education and shared decision-making, and poor follow-up). Therefore, strategies to promote adherence should address issues in prescribers’ attitudes and training, as patients' nonadherence to antidepressant medications may also reflect physicians' quality of care.

In fact, physician-specific issues including poor patient education, lack of shared decision-making, prescription of inadequate dosages of antidepressants, and lack of follow-up care are all aspects that physicians need to control to improve patient's adherence, since they represent some of the main obstacles to adequate antidepressant treatments. Due to evidence showing that the modality in which antidepressants are initially prescribed concurs to predict patient's treatment adherence and outcome, the first antidepressant prescription represents the most important occasion to provide patients with adequate information on medications, side-effects, expectations, therapy duration, and follow-up. To this regard, it has been recently pointed out that only a minority of patients, who discontinue antidepressant treatment after the first prescription, subsequently complete an adequate treatment course within the following year. Therefore, initiatives to promote adherence to appropriate antidepressant treatment should be taken in primis during their first prescription.

Based on the above, as in Italy reported antidepressant adherence rates are unsatisfactory and consistent with the aforementioned studies, we aimed to establish a consensus on the essential points clinicians which should discuss with MDD patients when antidepressant medications are first prescribed. We therefore used the results of this consensus to inform a psychoeducation module to be used by practicing clinicians at point of care when prescribing antidepressants, herein presented and discussed. Dell osso, *et.al.*,(2020).

REVIEW LITERATURE

1. Paul R Albert et al 2022, Major depression is a chronic illness with a high prevalence and is a major component of disease burden. Depressive disorders were the second leading cause of years lived with disability in 2010 in Canada, the United States and globally. When depression-related deaths due to suicide and stroke are considered, depression has the third highest global burden of disease. Major depression is growing in overall disease burden in Canada and around the world; it is predicted to be the leading cause of disease burden by 2030, and it is already the leading cause in women worldwide. Between 1990 and 2010 in Canada, major depressive disorder showed a 75% increase in disability-adjusted life years, the second greatest increase in prevalence after Alzheimer disease; in comparison, the increase in the United States was 43%.At the same time, the female: male ratio of global disability from major depression remained unchanged at 1.7:1.

2. Kushwaha et al 2021, The aim of the study was to analyze adverse drug reactions (ADRs) reported in patients prescribed antidepressants at tertiary care hospital. Methods: A

prospective and observational study was conducted during January 2020–July 2021 at Department of Pharmacology in collaboration with the Department of Psychiatry, GSVM Medical College, and Kanpur. All patients diagnosed with depression and receiving pharmacotherapy were included in the study. ADRs were monitored using the standard form of the Central Drugs Standard Control Organization and causality was determined using the Naranjo algorithm. Data were evaluated for patient's demography, risk factors for ADRs, and pattern of ADR. Results: The majority of ADRs (97.95%) were possible according to the Naranjo's scale. Conclusion: Anxiety, insomnia, and dizziness were the common ADRs which were associated with the use of antidepressants. This study offers a representative profile of the ADRs which can be expected in the psychiatry outpatients.

3. Arthur C Guyton et al 2020, Bipolar disorder is a chronic mood disorder that causes intense shifts in mood, energy levels and behavior. Manic and nhypomanic episodes are the main sign of the condition, and most people with bipolar disorder also have depressive episodes. The condition is manageable with medications, talk therapy, lifestyle changes and other treatments. Bipolar disorder (formerly known as manic-depressive illness or manic depression) is a lifelong mood disorder and mental health condition that causes intense shifts in mood, energy levels, thinking patterns and behavior. These shifts can last for hours, days, weeks or months and interrupt your ability to carry out day-to- day tasks.

4. Dillon browne et al 2019, Anxiety is a normal and often healthy emotion. However, when a person regularly feels disproportionate levels of anxiety, it might become a medical disorder. Anxietydisorders form a category ofmental healthdiagnoses that lead to excessive nervousness, fear, apprehension, and worry These disorders alter how a person processes emotions and behave, also causing physical symptoms. Mild anxiety might be vague and unsettling, while severe anxiety may seriously affect day-to-day living. Anxiety disorders affect 40 million people in the United States. It is the most common group of mental illnesses in the country. However, only 36.9 percentof people with an anxiety disorder receive treatment. Anxiety, regardless of a person's psychological or biological makeup, is highly common. Although it can be triggered by a specific event, such as a trauma or stressful situation, anxiety can also present as a consistent theme in a person's life, creating challenges in daily activities or interactions.

5. Bande low B et al 2018, Anxiety disorders (generalized anxiety disorder, panic disorder/agoraphobia, social anxiety disorder, and others) are the most prevalent psychiatric disorders, and are associated with a high burden of illness. Anxiety disorders are often underrecognized and undertreated in primary care. Treatment is indicated when a patient shows marked distress or suffers from complications resulting from the disorder. The treatment recommendations given in this article are based on guidelines, meta-analyses, and systematic reviews of randomized controlled studies. Anxiety disorders should be treated with psychological therapy, pharmacotherapy, or a combination of both. Cognitive behavioral therapy can be regarded as the psychotherapy with the highest level of evidence. First-line drugs are the selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors. Benzodiazepines are not recommended for routine use. Other treatment options include pregabalin, tricyclic antidepressants, buspirone, moclobemide, and others. Antidepressants, including paroxetine and the serotonin-norepinephrine reuptake inhibitor venlafaxine, are effective anxiolytics and resolve symptoms of depression in patients with GAD. The benefit of venlafaxine is sustained long term, enabling increased numbers of patients to attain remission from symptoms and experience restoration of normal functioning. Although further clinical studies are required to establish the use of psychosocial therapy in the treatment of GAD. preliminary results are encouraging. At present, the use of psychosocial therapy and second- generation antidepressants, such as some selective serotonin reuptake inhibitors and venlafaxine, offer the best approach to attaining long-term benefit for patients with GAD.

6. Grover S et al 2017, Depression as a disorder has always been a focus of attention of researchers in India. Over the last 50-60 years, large number of studies has been published from India addressing various aspects of this commonly prevalent disorder. The various aspects studied included epidemiology, demographic and psychosocial risk factor, neurobiology, symptomatology, comorbidity, assessment and diagnosis, impact of depression, treatment related issues and prevention of depression in addition to the efficacy and tolerability of various antidepressants. Here, we review data on various aspects of depression, originating from India. This review focuses on research done on various depressive disorders in India. For this, a thorough internet search was done using key words like depression, life events, prevalence, classification, cultural issues, outcome, prevention, disability and burden etc in various combinations.. Treatment issues

(antidepressants) are reviewed separately by us in this compilation of annotations to be published. Data from animal studies and originating in the form of case reports and small case series, until felt necessary haven't been included. The available data has been organized under the headings of epidemiology, demographic and psychosocial risk factors, neurobiology, symptomatology, comorbidity, assessment and diagnosis, impact of depression, treatment related issues and prevention of depression.

7. Shi p et al 2016, The phenomenon of female preponderance in depression has been well-reported, which has been challenged by higher rates of suicide and addictive behaviors in males, and a longer life-span in females. We thus propose an alternative hypothesis "Gender differences in self-reporting symptom of depression," suggesting mild-moderate depression tends to be reported more often by females, and severe depression and suicide tend to be reported more often by males. Potential mechanisms that account for this difference may include three aspects: covariation between estrogen levels and the incidence peak of female depression, gender differences in coping style (e.g., comparative emotional inexpressiveness and non-help-seeking in males), and gender differences in symptom phenotypes (e.g., atypical symptoms in male depression). Our newly presented hypothesis implied the overlooked under-diagnosis and under-treatment of depression in males. For effective diagnoses and timely treatment of male depression, it is critical to incorporate symptoms of depression in males into the relevant diagnostic criteria, encourage males to express negative emotions, and increase awareness of suicidal behavior in males.

8. Jorm AF et al 2015, There is considerable disagreement about what happens to the risk of anxiety and depression disorders and symptoms as people get older. In order to explore this issue, studies that examine the occurrence of anxiety, depression or general distress across the adult life span were reviewed. Studies which were included had been carried out with a general population sample of individuals aged 30–65+ yrs and utilized the same assessment measure at each age. Findings suggest that there is no consistent pattern for age differences in the occurrence of anxiety, depression or distress. The most common trend found was for an initial rise across age groups, followed by a drop. Two major factors producing this variability in results were age biases in assessment of anxiety and depression and the masking effect of other risk factors that vary with age. When other risk factors were statistically controlled, a more consistent pattern emerged, with most

studies finding a decrease in anxiety, depression and distress across age groups. This decrease cannot be accounted for by exclusion of elderly people in institutional care from epidemiological surveys or by selective mortality of people with anxiety or depression. (PsycInfo Database Record (c) 2020 APA, all rights reserved). There is some evidence that ageing is associated with an intrinsic reduction in susceptibility to anxiety and depression.

9. Dale gulledge et al 2014, Anxiety is a normal reaction to stress that most people experience throughout their lives. A person may feel anxious when speaking in public, taking a test, or making an important life decision. But if the anxiety is more than temporary worry or fear, does not go away, or worsens over time, this may be a sign of an anxiety disorder. NYU Langone specialists offer expert diagnosis of anxiety disorders, which are common mental health conditions that can interfere with daily activities, affecting your performance at work and school as well as your relationships. To diagnose an anxiety disorder, a doctor performs a physical exam, asks about your symptoms, and recommends a blood test, which helps the doctor determine if another condition, such as hypothyroidism, may be causing your symptoms.

10. Lim et al 2013, Depression alters one's mood, making one feel sad and lose interest in people, events, and objects, and thus may cause physical and emotional problems. It may involve treatment in the long run if it persists, which includes medication and psychotherapy. This paper will focus on a detailed summary of other researchers' work addressing the issue of depression using several databases and carry out a curative study on depression in full text. The following literature review is based on selected articles meeting the criteria of inclusion. According to Lim et al. (2014), depression in the general population is a common mental health condition. It is highly associated with sadness, low self-esteem, poor concentration, anxiety, interest loss, and a feeling of being a quilt. The study also shows that the World Health Organization (WHO) predicted that depression will be ranked as the second global disease burden by 2020. The research also covered the nomothetic and idiographic measures of depression, which means that the assessed item is common to every person at different degree levels. Incontrast, the idiographic measure is based on the distinct features and views of the patient. The study concludes that during the patient assessment on the defined objective of treatment, idiographic measures are preferred due to being more relevant.

11. An investigation done by Bernaras et al. (2019) states that depression is the main cause of disability-related illness in the world. The research focused on depression among children and adolescents since these two groups are agilely associated with high incidence. It also analyses the theories that construct and explain depression and provides an overview of disorders among children and adolescents. In this study, the authors conclude that depression in terms of the mental distinction between adults and children has no difference, and thus, the theory of explanation is highly taken into account to elaborate a better understanding of depression. The research further stated that treatment and prevention should be multifactorial (Bernaras et al., 2019). Besides, it is estimated that universal programs can be more efficient considering their wide application. The research results are limited in providing a good conclusion and fail to demonstrate any solid long-term efficacy.

12. Bandelow et al 2012, Anxiety disorders are the most prevalent psychiatric disorders. There is a high comorbidity between anxiety (especially generalized anxiety disorders or panic disorders) and depressive disorders or between anxiety disorders, which renders treatment more complex. Current guidelines do not recommend benzodiazepines as first-line treatments due to their potential side effects. Selective serotonin reuptake inhibitors and selective serotonin norepinephrine reuptake inhibitors are recommended as first-line treatments. Psychotherapy, in association with pharmacotherapy, is associated with better efficacy. Finally, a bio-psycho-social model is hypothesized in anxiety disorders.

13. Mark olson et al 2011, Social anxiety is highly prevalent among college students. Current methodologies for detecting symptoms are based on client self-report in traditional clinical settings. Self-report is subject to recall bias, while visiting a clinic requires a high level of motivation. Assessment methods that use passively collected data hold promise for detecting social anxiety symptoms and supplementing self-report measures. Continuously collected location data may provide a fine-grained and ecologically valid way to assess social anxiety in situ. Several barriers may inhibit patients from coming in for treatment. An inability to afford treatment, an uncertainty over where to go for treatment, a fear of what others might think or say, and problems with clinical detection of social phobia each appear to play a role. Some barriers are easier to address than others. For example, whereas political and economic considerations perennially complicate efforts to expand third-party mental health coverage, a consensus may be

much easier to achieve on the need to increase public awareness of the local availability of treatment services. Program directors should also work to ensure that their services can be accessed in a private and discreet manner that reduces patient fears of public scrutiny.

14. allenger et al 2010, Properly diagnosing and treating patients with anxiety, depression, or both is a challenging aspect of practicing medicine in the primary care setting. Patients often present with somatic complaints rather than classic psychiatric symptoms. In addition, there is significant overlap between anxiety and depression in this patient population. Comorbid anxiety and depression is often more resistant to pharmacologic treatment, and patients with coexisting disorders have a poorer medical prognosis than do patients with either disorder alone. Fortunately, many new therapies are available to assist the clinician in managing these patients. The newer antidepressants, in particular, are playing an increasingly important role in the treatment of both anxiety disorders alone and comorbid anxiety and depression. it is not surprising that many of these patients turn to their primary care physicians for care. As a result, it is crucial for the generalist physician to be well versed in recognizing and managing such cases. Now more than ever, new, more user-friendly pharmacologic options demonstrate robust efficacy; simplified treatment with monotherapy can provide the necessary tools to manage anxiety and depression in the primary care setting both efficaciously and cost effectively.

15. Sourabh kosei et al 2009, We define an adverse drug reaction as "an appreciably harmful or unpleasant reaction, resulting from an intervention related to the use of a medicinal product, which predicts hazard from future administration and warrants prevention or specific treatment, or alteration of the dosage regimen, or withdrawal of the product." Such reactions are currently reported by use of WHO's Adverse Reaction Terminology, which will eventually become a subset of the International Classification of Diseases. Adverse drug reactions are classified into six types (with mnemonics): dose- related (Augmented), non-dose-related (Bizarre), dose-related and time-related (Chronic), time-related (Delayed), withdrawal (End of use), and failure of therapy (Failure). Timing, the pattern of illness, the results of investigations, and rechallenge can help attribute causality to a suspected adverse drug reaction. Management includes withdrawal of the drug if possible and specific treatment of its effects.

16. Ejata F et al 2008, Patients with schizophrenia are managed with antipsychotics and other psychotropic medications. Objectives. This study aimed to assess the commonly

prescribed psychotropic medications for patients with schizophrenia, explore the types of therapeutic monitoring that were performed, and find out whether the side effects experienced by the patients played any role in their adherence behaviour. Methods. This hospital- based cross-sectional study enrolled 259 patients with schizophrenia from Accra Psychiatric Hospital and Pantang Psychiatric Hospital. Data were collected on mental status, side effects, types of therapeutic monitoring performed, and adherence behaviour. Results. Olanzapine was the commonly prescribed psychotropic medication. Most of respondents (73.4%) experienced mild levels of side effects. The negative effects were predominantly genitourinary (26%) and gastrointestinal (17.2%).

17. Sneha ambani et al 2007, Psychiatric disorders are chronic in nature which often require long and continuous medications. These medications are known to cause adverse effects on their use. Their monitoring and prevention are crucial for the practicing family and community physicians. Psychiatric disorders are chronic in nature which often require long and continuous medications. These medications are known to cause adverse effects on their use. Early detection and suitable intervention can help the community physicians in the proper care of the patients and rational use of drugs. An adverse drug reaction (ADR) is a potentially hazardous or unpleasant reaction that occurs as a result of a procedure associated with the use of a medical substance. Adverse reactions often indicate a risk of harm from future administration, necessitating avoidance, particular therapy, adjustment of the dosing regimen adjustment, or product discontinuation. Antipsychotics are classes of medications that are used to treat psychiatric diseases, most notably schizophrenia, as well as bipolar disorder, delusional disorder, and, increasingly, non-psychotic disorders. Since the debut of antipsychotic drugs for the treatment of psychosis, a variety of medications have been created in this category. The “typical antipsychotics,” which were initially discovered in the 1950s, are the first generation of antipsychotic medications. It was quickly discovered that they generated extrapyramidal symptoms (EPS) in patients with Parkinsonism, tardive dyskinesia, akathisia, and other movement disorders.

18. Jacob SA et al 2006, This study examines the experiences and expectations of patients with depressive disorders regarding the disease and different antidepressants, as well as examining the barriers and facilitating factors that could affect their adherence to medications. An exploratory qualitative study was carried out. The study involved two

focus groups made up of patients and caregivers and six semi-structured interviews with psychiatrists. In both cases, the participants were selected by intentional theoretical sampling, seeking maximum significance variation of social types. Prejudice about the side effects of medication was relevant. The importance of patients being well informed about the disease/treatments was noteworthy. The stigmatization of antidepressants by patients was identified as a barrier to medication adherence. The involvement of family members and the motivation of patients to be actively involved in the process to recover from the disease were identified as facilitating factors. The work carried out suggests the need for patients to have rigorous information about the disease/treatment to reduce the possible prejudices generated by beliefs. Maintaining greater contact and monitoring of patients/caregivers to help therapeutic adherence in patients with depressive disorders was also identified as being of great importance. Depression affects approximately 280 million people worldwide. 50 % of individuals with depression discontinue antidepressant therapy within six months of initiation.

19. Dell'Osso et al 2005, Studies conducted in primary care as well as in psychiatric settings show that more than half of patients suffering from major depressive disorder (MDD) have poor adherence to antidepressants. Patients prematurely discontinue antidepressant therapy for various reasons, including patient-related (e.g., misperceptions about antidepressants, side-effects, and lack of tolerability), clinician-related (e.g., insufficient instruction received by clinicians about the medication, lack of shared decision-making, and follow-up care), as well as structural factors (e.g., access, cost, and stigma). The high rate of poor adherence to antidepressant treatments provides the impetus for identifying factors that are contributing to noncompliance in an individual patient, to implement a careful education about this phenomenon. As adherence to antidepressants is one of the major unmet needs in MDD treatment, being associated with negative outcomes, we sought to identify a series of priorities to be discussed with persons with MDD with the larger aim to improve treatment adherence.

20. Leslie L et al 2004, Depression, anxiety, and aggression accompany neuropathic pain. Effective treatment of these comorbidities enhances the outcomes of pain management. Therefore, the study was designed to analyze the relationship between the intensity of depression, anxiety, and aggression and the pharmacotherapy applied in the daily practice of treating neuropathic pain. The aim of the study was to evaluate the frequency of using

antidepressants (ADs), benzodiazepine anxiolytics (BDAs), and hypnotics, and the influence of administering these on the intensity of depression, anxiety, and aggression in patients diagnosed with neuropathic pain. A multi-center survey was conducted among 421 patients. An evaluation of the severity of depression, anxiety, and aggression was made using the Hospital Anxiety and Depression Scale—Modified Version (HADS-M). Among the patients treated due to neuropathic pain, ADs are used much more often than BDAs and hypnotics. Depression was well controlled, while anxiety was identified as a possible uncontrolled therapeutic problem in these patients, despite the correlation between the frequency of AD and hypnotics usage and the severity of anxiety. We also found that women show a higher level of intensity in both anxiety and depression, but this does not influence the frequency of their being administered ADs, BDAs, and hypnotics. Depression and anxiety are among the most common psychiatric disorders. Worldwide sales of antidepressant drugs of more than $20 billion make this one of the most important classes of central nervous system medicines. Although some may think of depression as a form of moral deficiency from which indi-viduals could get better if they just "pulled themselves up by the bootstraps," the reality is that it is an illness, not a choice, and it represents a major cause of dis-ability, preventing sufferers from work and pleasure.

21. Mj Muller et al 2003, Antidepressants are psychotropic drugs for the treatment of depressive syndromes of various etiology. This historical definition nowadays reflects only one facet of the spectrum of their possible therapeutic applications. More than 40 years of clinical experience and scientific research with antidepressant drugs have resulted in a variety of different indications with proven efficacy for these agents, particularly anxiety disorders or obsessive–compulsive disorder. As antidepressants are effective across different psychopathological syndromes of traditional nosological categories, an up-to-date definition for this heterogeneous group of agents with different chemical structures and pharmacological profiles still needs to be established. are fairly well absorbed after oral administration. The oral bioavailability of most antidepressants is reduced by first-pass metabolism in the liver Baldessarini (2001). Some tertiary amine TCAs undergo demethylation to yield active secondary amines, which are also used clinically. In general, antidepressants have long elimination half-lives, and inactivation and elimination of most antidepressants occurs over a period of several days Baldessarini (2001).

AIM AND OBJECTIVES

AIM

To assess the adverse event and Spread the awareness on antidepressant and anxiolytic drugs.

OBJECTIVES

1. Evaluation of Adverse Event related to Antidepressant and Anxiolytic drugs.
2. To create awareness in patients on the treatment and the Adverse Event.
3. Assess the Attitude towards the Adverse Event and the survey.

PLAN OF WORK

The entire study was planned for a period of 9 months.

The proposed study was designed in three phases to achieve the objectives.

PHASE I

- Literature review
- Identification of the need of work
- Preparation of protocol
- Obtaining institutional ethical committee approval

PHASE II

- Designing the data collection form,
- Selection of study subjects
- Collection of data
- Documentation of collected data

PHASE III

- Analysis of collected data.
- Statistical analysis of all collected data.
- Report preparation
- Submission

METHODOLOGY

Study design **:** This is a Cross Sectional Descriptive, Observational study.

Study site **:** Erode District

Study period **:** 9 months.

Study Population : RAO Software : sample size is 210 patients Source of data

All the necessary data is collected from

1. Patient prescription
2. Suitably designed data collection form

Inclusion criteria

- Either male or female
- All the patients who are receiving antidepressant and anxiolytic drugs.

Exclusion criteria

- Anti psychotic drugs other than anti depresants and anxiolytic are excluded.

DESIGN AND DEVELOMENT OF STUDY MATERIALS

Design of data collection form [DCF]

It consists of details such as patient demographics [Age, Gender, current medication, past medication if any] and questionnaires [related to adverse event, medication and compliance].

Study procedure: This is a cross sectional descriptive study, where the questionnaires are asked related to ADR / side effects, medication awareness, attitude and compliance to the patients. Treatment charts are reviewed. The record of all the necessary data along with patient demographic details are recorded in a suitable designed data collection form and spread knowledge of A/E by distributing leaflet.

Here there are 3 questions to calculate the patient quality of life.

- The quality life of the patients are calculating with all these questions
- In this two questions has the two option, that is yes or No.
- If yes means will be right answer.
- The remaining one question are asking about patients relationship with social and family activity.

RESULTS

AWARENESS, ATTITUDE AND SIGNAL DECTICTION OF ON ANTI-DEPRESSANT AND ANXIOLYTIC DRUGS

A. Demographic details of study

1. BASED ON GENDER

A total of 210 Depression and Anxiety patients responded to the questionnaires at MMCH Erode, Tamil nadu. Among them 90 patients were male and 120 patients were female. Therefore, women are more prone to Depression and Anxiety.

Table no: 2 Demographic details of study Based on gender.

Variables	No. of patients	Percentage
Male	90	43%
Female	120	57%

The table 2 shows, Number percentage of males is less and female percentage is high. Out of 210 patients data shows 43% in males and 57% are females, The study results were similar to study conducted by Mukherjee, et al (2015) shows of 190 patients, males and females represented 43.68% and 56.31% of the cases respectively. Which was orelated with my results.

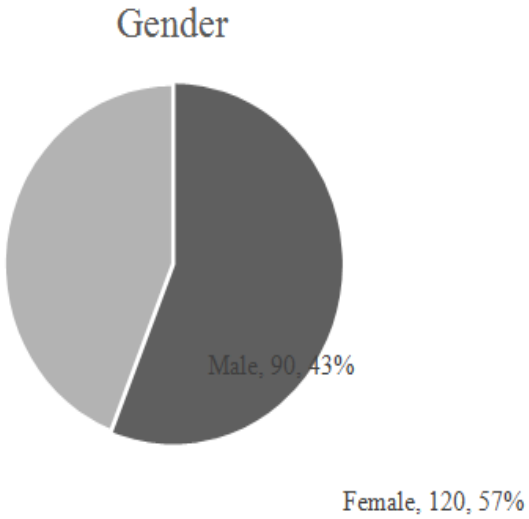


Figure no 1: Gender Distribution of the study participants.

1. BASED ON AGE

Majority of patients belonged to Category 2: [31-50] Table no : 3 Demographic details of study Based on age.

Category	Age	Percentage	No. of Patients
1	11-30	26%	53
2	31-50	50%	105
3	51-85	24%	52

The table 3 shows, the age group of 11-30 are having 26%, the age group 31-50 having 50% and it is the major category of depression based on age.

The age group 51-85 are having only 24% and it indicates it is minority of category on depression.

The majority of the respondents belongs to age group of 31-50 years (50%) followed by 11-30 years (26%) and least among age group of 51-85 years (24%). A similar study done by Mukherjee, et al (2015) age was found to be an important criterion in the fact that patients belonging to age group of 30–39 years showed higher morbidity followed by 20–29 years. Same study was conducted by Solanke Bet al. (2013) in which (54.68%) were observed in the age group of 21-40 years followed by 22.39% in 41-60 years.

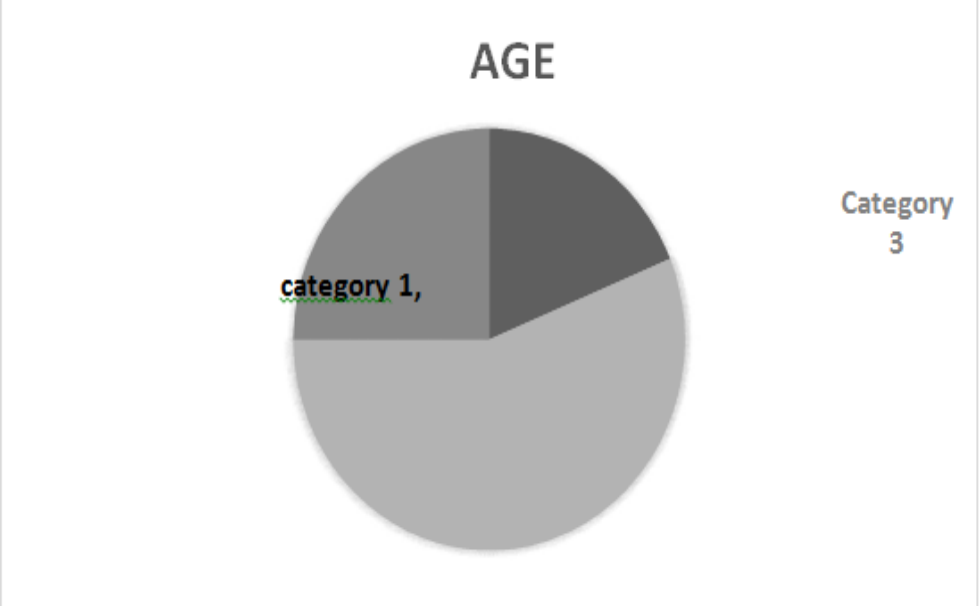


Figure no 2: Number of patients belongs to the category.

Category 1:11-30 Category 2: 31-50 Category 3: 51 - 85

The age is arranged based on 3 categories

- It is category 1, category 2 and category 3
- The category 1 contains 11-30 aged peoples, 53 patients were in this category
- The category 2 contains 31-50 aged peoples, 105 patients were in this category
- The category 3 contains 51-85 aged peoples, 52 patients were in this category as per the data obtained.
- When comparing the age group with gender mostly female patients of 31-50 of age.
- Majority of patients belonged to category 2
- The category 3 have minority of patient when comparing both category 1 and 2.

Drugs prescribed to the patients

Table no: 4.

Name of the Drug	Dose	No. of Patients	Percentage
Mirtazepine	7.5	50	23.8%
Clobazam	10	20	9.5%
Olanzepine	10	25	12%
Risperidone	2	15	7.1%
Escitalopram	10	20	9.5%
Fluoxetene + olanzapine	20+10	30	14.2%
Trihexyphenidyl	2	40	19%
Lorezepam	1	10	4.7%

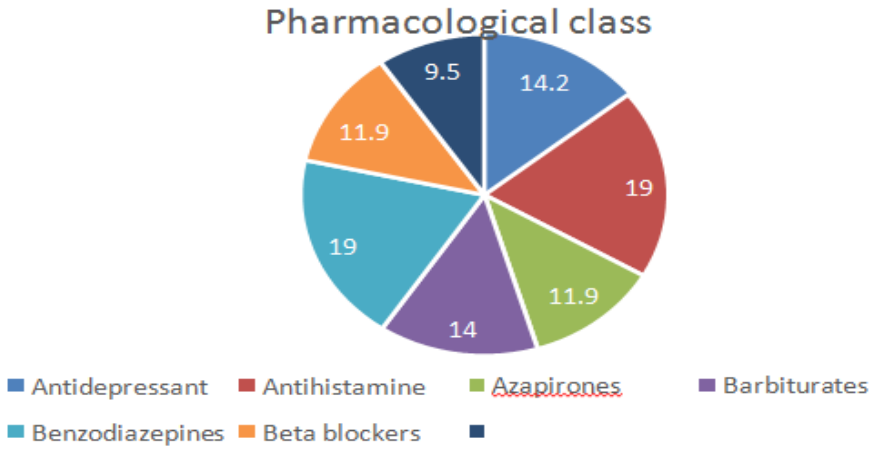
Table 4 shows, as per the data collected 23.8% patients are taking Mirtazepine as antidepressant 19 % patients taking Trihexyphenidyl, 14.2% were taking Fluoxetene, 12 %were taking Olanzepine, 4.7 % patients are taking Lorezepam Mirtazepine (23.8%) Was the most prescribed antidepressant followed by Trihexyphenidyl (19%), Fluoxetene + olanzepine (14.2%), Olanzipine (12%) and least among Lorazepam(4.7%). Sukanta Sen et.al It is observed that, the most frequently prescribed antidepressant was escitalopram (in 48 cases, 25.26%); followed by amitriptyline (in 32 cases, 16.84%) and the most frequently prescribed newer antidepressant was venlafaxine (in seven cases, 3.68%). The most frequently prescribed combination therapy was that of amitriptyline and sertraline (10, 5.26%) in the study population.

Pharmacological class of drug prescribed

Table no: 5.

Pharmacological class	No. of Patients	Percentage
Antidepressant	30	14.2%
Antihistamine	40	19%
Azapirones	25	11.9%
Barbiturates	30	14%
Benzodiazepines	40	19%
Beta blockers	25	11.9%
Sedative / hypnotics	20	9.5%

Table 5 shows the pharmacological class of drugs prescribed, among which majority belongs to benzodiazepines and anti histamines (19%) followed by antidepressant (14.2%) and least among sedative hypnotics (9.5%). The study conducted by Nalçakan AD et al (2022) was similar to the study were benzodiazepines were the most prescribed drugs (32%).



Reason for taking medication

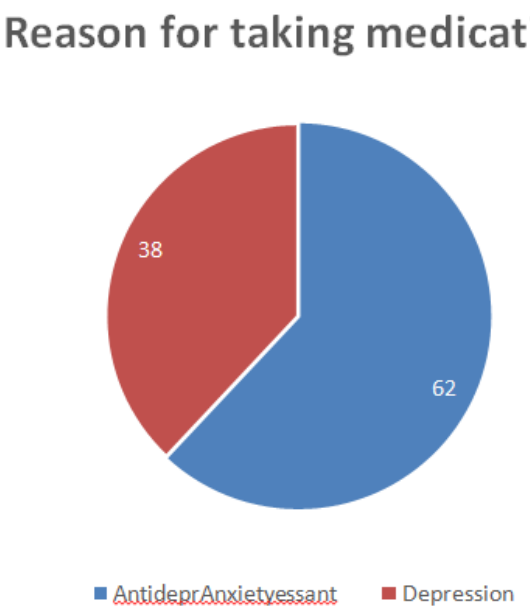
Table no: 6.

Category	Patients	Percentage
Anxiety	130	62%
Depression	80	38%
Bipolar mood disorder	29	14%
Obsessive compulsive disorder	35	17%
Dementia	26	12%

Obtained around 62% patients are belongs to anxiety 38% patients belong to depression.

The table 6, shows 32% of patients experience anxiety, indicating its prevalence as a common mental health concern. Anxiety disorders can significantly impact individuals' daily functioning and quality of life. Treatment options often include therapy, medication, or a combination of both. 25% of patients are affected by depression, highlighting its substantial impact on mental well-being. Depression can manifest in various forms, ranging from mild to severe, and may require tailored treatment plans such as therapy, antidepressants, or lifestyle changes. 14% of patients have bipolar disorder, characterized by mood swings between manic and depressive episodes. Managing bipolar disorder typically involves mood stabilizers, therapy, and lifestyle adjustments to stabilize mood fluctuations and prevent relapses. 17% of patients experience OCD, marked by intrusive thoughts and repetitive behaviors. Comorbidities between OCD and other mental health disorders, such as bipolar disorder, can complicate treatment strategies, requiring comprehensive approaches tailored to individual needs. 12% of patients suffer from dementia, a neurodegenerative condition affecting cognitive functions. Early detection, lifestyle modifications, and supportive interventions play crucial roles in managing dementia symptoms and enhancing patients'

quality of life. The results are contrasting to the similar study conducted by Mukherjee, et al (2015) shows of 190 patients monitored, major depression was the most common disorder encountered(53.68%), followed by anxiety (25.79%).



B. Adverse event related to given drugs

Among 210 patients, 22 patients were suffering from adverse effect.

Table no: 7 Adverse events in patients.

Adverse Event	No. of Patients
Drowsiness/ Depression	8
Xerostomia [Dry mouth]	4
Headache	2
Weight gain	5
Swelling	1
Tremor	1
Lethargy	1

Table 4 shows, Out of 22 patients, the 8 patients are suffering the drowsiness or depression followed by 4 patients are suffering Xerostomia (dry mouth).

- The remaining patients are suffering headache, weight gain, swelling , tremor and lethargy
- Mostly 23.8% patients were taking mirtazapine as a primary antidepressant drug.
- 90% were taking Trihexyphenidyl 2mg
- MEASURES TAKEN: Medication was not changed instead dose of the drug was reduces as the adverse event are tolerable and Mirtazapine was given to reduce depression.

Among 210 patients, 22 patients were suffering from adverse effect. Table 4 shows, out of 22 patients, the 8 patients are suffering the drowsiness or depression followed 4 patients are suffering Xerostomia (dry mouth) The remaining patients are suffering headache, weight gain, swelling, tremor and lethargy Mostly 23.8% patients were taking mirtazapine as a primary antidepressant drug. 90% were taking Trihexyphenidyl 2mg. different kinds of treatment emergent ADRs were encountered in the patients. Similar study conducted by Mukherjee, et al (2015) Dry mouth was the commonest ADR noted (6.44%), closely followed by nausea (6.03%) and tremor (5.82%).

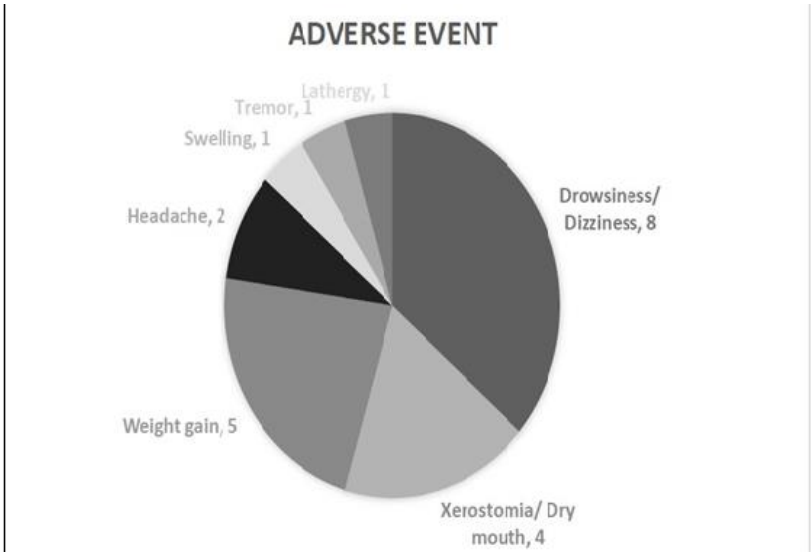


Figure no 3: Patients who are suffering from adverse events.

Drowsiness/ Dizziness: 4-7%[E], 6-14%[P] Xerostomia: 4-9%[E], 9-18%[P], 9-22%[F] Weight gain: 1%[E] Headache: 17%[P] Tremor: 3-13%[F][19].

C. Side effect

Among 210 patients taking Anti-depressant and Anxiolytic drugs, Gastric problem high compare to other side effect.

Table no: 8.

Side effect	Percentage
Gastric problem	5 %
Hair fall	1 %
No freshness	1 %

The table 7 shows that 5% patients suffering gastric problem, 1% patients suffering hair fall, 1 % patients suffering no freshness.

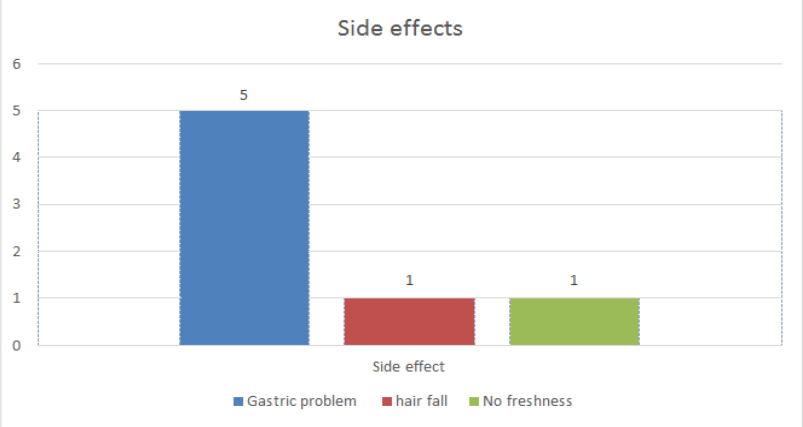


Figure no 4: Side effect of the drug.

MEASURE TAKEN: Domperidone and Rabeprazole was given to reduce gastric problem.

D. Patient awareness on Adverse effect

Do you aware about antidepressant drugs?

Do you aware of ADR of the drug that prescribed to you?

Table 9

Patient aware	Patients	Percentage
Yes	190	90%
No	20	10%

Table 8 Shows,

- The graphical representation shows that 90% patients were aware about antidepressant drug
- Remaining 10 % are not aware.

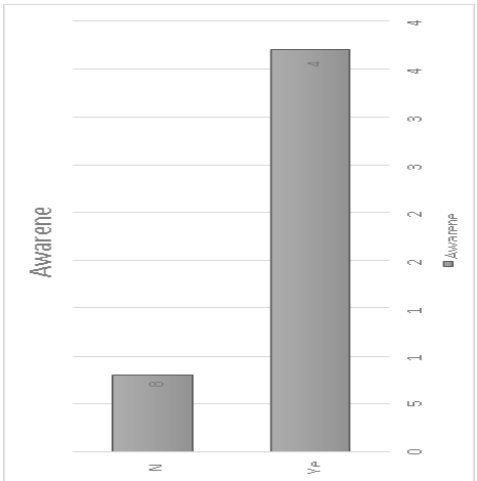


Figure no 5: Patient awareness on Adverse effect.

E. The Knowledge given through leaflet was helpful?

Yes, the knowledge given through leaflet was useful as the leaflet was provided in both English and Tamil language for better understanding along with oral counselling regarding same.

Did you understand the leaflet ? Do you taken medication properly?

Is the leaflet given that improve your knowledge?

Table no:10

Knowledge given through leaflet	Patients	Percentage
Yes	210	100%
No	Nill	Nill

Table 9 Shows, 100% peoples are telling they have the Knowledge given through leaflets.

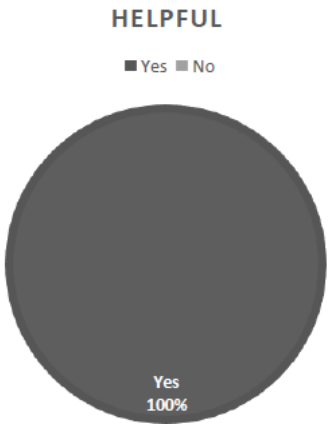


Figure no 6: The Knowledge given through leaflet to the patients.

F. Attitude and Life style

Table no: 11 Exercise done by patients.

Category	Yes	No
Male	55	35
Female	65	55

Table 10 Shows.

- In males 55% are doing exercise well
- In females 65% are doing exercise well
- But in male 35% are not doing exercise regularly
- In females 55% are not doing exercise regularly

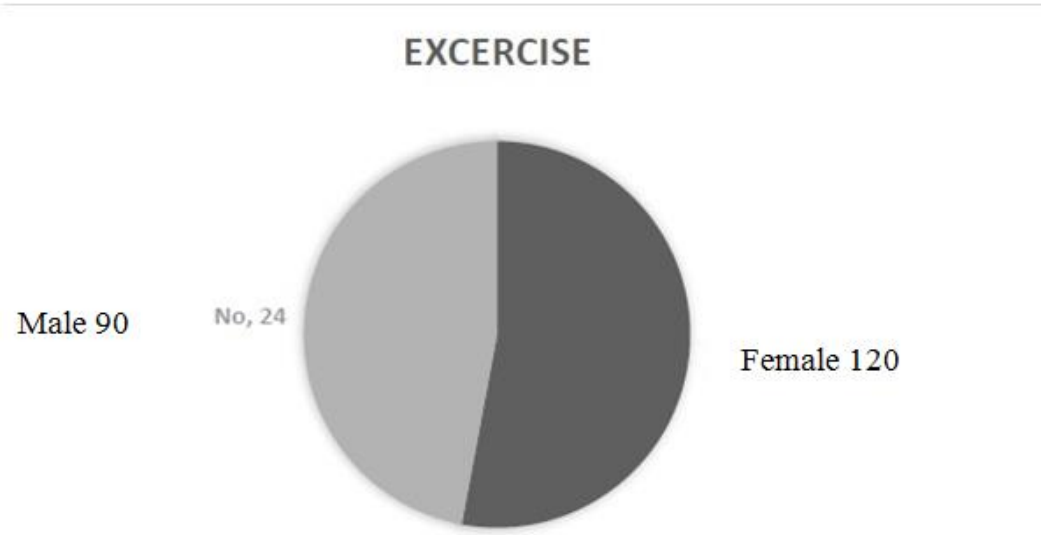


Figure no 7: Attitude and Life style (Exercise).

Table: 12 Assessment of quality of life.

Did you incorporate exercise in to your life style to manage your depression anxiety symptoms	Patients	Percentage
Yes	10	5%
No	200	95%

- The table shows there is 5% of patients are incorporate with the exercise in their life style to manage the depression and anxiety.
- The 200 Patients are corporate with the exercise which helps to reduce depression and anxiety.

How is the patients relationship with social and family activity ?	Patients	Percentage
Good	140	66%
Bad	70	34%

- The table shows there 66% patients answering good and 34% answering not good.
- If their answer is good means, it indicates patients having good quality of life.
- If their answer is bad means, it indicates patients having bad quality of life.

Difficulty sleeping	Patients	Percentage
Good	190	90%
Bad	20	10%

- The table shows there 90% patients are telling yes for the difficulty of sleeping.
- And Remaining 10% has been telling there is no much difficulty in sleeping.

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CONCLUSION

This is to conclude the study by summarising the research in proportion to the research objectives and the questionnaires. The objective of the study was to investigate who is at high risk to go under depression and anxiety and weather the patients are aware of adverse event and if yes, how many patients were aware of it in the sum of 210 and to check their attitude and response for A/E. The study also involves to spread awareness on Adverse Event appearing from Anti- Depressant and Anxiolytic drugs and teaching Adverse Event and Symptoms of disease overlapping. Advising the patients to take medicines on time and regular exercise for good quality of life. Through this study we found that the patients receiving Anti- depressant and Anxiolytic drugs appeared with adverse effect for initial days.

The patients with long term administration showed no Adverse Event o as their body got resist to it and most of the patients were aware of the Adverse Event cause by these drugs on long term. 26% patients responded with positive attitude on Adverse Event and Side effects.

The major concern and need for the study were to differentiate between signs and symptoms of the disease and the Adverse Event and Side effects., which still needs further research and deeper knowledge on the topic and long tern patient follow ups, thus creating scope and importance for continues study with other classes of psychiatric drugs. The further scope in the study is to carry out for longer duration, including both inpatients and outpatients to know which adverse event occurs the most among the patients, preventive measures, how much time the body takes to get resistant to these drugs and also work on increasing the knowledge among the patients on ADR and medication adherence for betterment of public health.

LIMITATION

- Due to time constraint could not include more patients in the study.
- The study was limited to outpatients only, and did not include inpatients.
- Few didn't give comments to collect the data.

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Survey questionnaires

Patient demographics

Sex Weight

Allergies Family history

Social history Education status

Finance status

Pre-medication history: Post-medication history: Final report

Medication chart

Drug	Class	Dose Frequency	Indication	compliance

Are you taking prescribed medication correctly? ☐ Yes ☐ No

Event description

1. Date of event 2. Drug and its class

3. Type of event

Detailed description of event

1. What kind of ADR
2. Did the AE appeared after the suspected drug was administered? N Yes ☐
3. Was the drug discontinued or not? N Yes
4. Did the patient take medication for the event? No Yes
5. If yes what
6. Did adverse reaction improved when the drug was discontinued? O

Attitude

1. Was the patient aware of the ADR caused by medication? ☐
2. After appearing AE did the patient consult the doctor? o ☐
3. Whether the information given in the leaflet is help full? ☐Yes ☐ NO
4. Did they understand the leaflet? ☐Yes ☐ NO

Quality of life

1. Did you incorporate exercise in to your life style to manage your depression anxiety symptoms? Yes ☐ No ☐

2. How is the patient's relationship with social and family activity?

3. Difficulty sleeping? Yes ☐ No ☐

Signature of patient/care taker

Signature of investigator

Questionaries

1. Little interest or pleasure in doing things

a) Not at all
b) Several days
c) More than half the days
d) Nearly every day

2. Trouble falling asleep, staying asleep, or sleeping too much

a) Not at all
b) Several days
c) More than half the days
d) Nearly every day

3. Feeling tired or having little energy

a) Not at all
b) Several days
c) More than half the days
d) Nearly every day

4. Poor appetite or overeating

a) Not at all
b) Several days
c) More than half the days
d) Nearly every day

5. Level of education

a) Illiterate

b) primary
c) secondary
d) college level

6. Do you know what your medication is for?
a) Yes
b) No
c) Maybe

7. Are you taking the medicine as per priscription?
a) yes
b) No
c) With altered dose

8. Do you have any drug related problems?
a) Yes. If yes——
b) No

9. Feeling down or depressed?
a) Not at all
b) several days
c) Nearly everyday

10. Do you feel sleepy or tired while you having the medicine?
a) Yes
b) No
c) Sometimes

11. Do you think the proper medication storage is important to the effectiveness of medication?
a) Yes
b) No

12. Are you doing regular exercise?
a) Yes
b) No

c) Sometimes

JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,
B.KOMARAPALAYAM, NAMAKKAL DT-638183

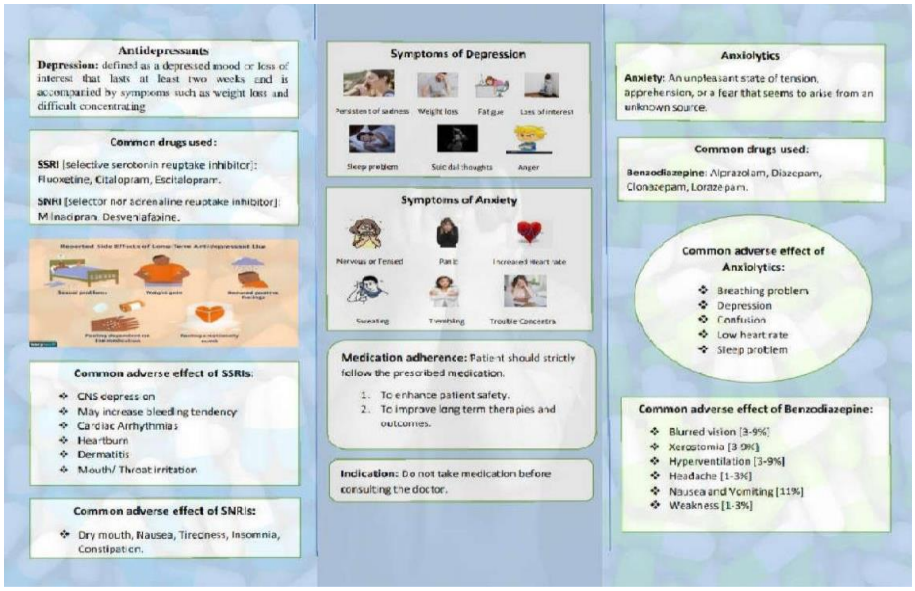
INFORMED CONSENT

HERE I CERTIFY THAT ALL THE ABOVE GIVEN DATA ARE SINCERE AND I UNE MY CONSENT TO THE MEMBER OF THE STUDY TO DOCUMENT AND PUBLISH THE RESULT, PROVIDED MY IDENTITY IS NOT REVEALED

இங்கே கேகே கொடுக்ேப்பட்ட எல்ேலா தேவுல்ேளும் உண்மேயொனமை என்று நொன் அன்றளிேிகறன். என் அமடயொளத்மத கைளிபடுத்தொததொல் முடிவுேமள ஆணைப்படுத்தி ைளியுடுைதற்க்கு உறுப்பினொின் ஒப்புதலுக்கு நொன் ஒப்புக்கொள்ேிகறன்.

Place: Signature

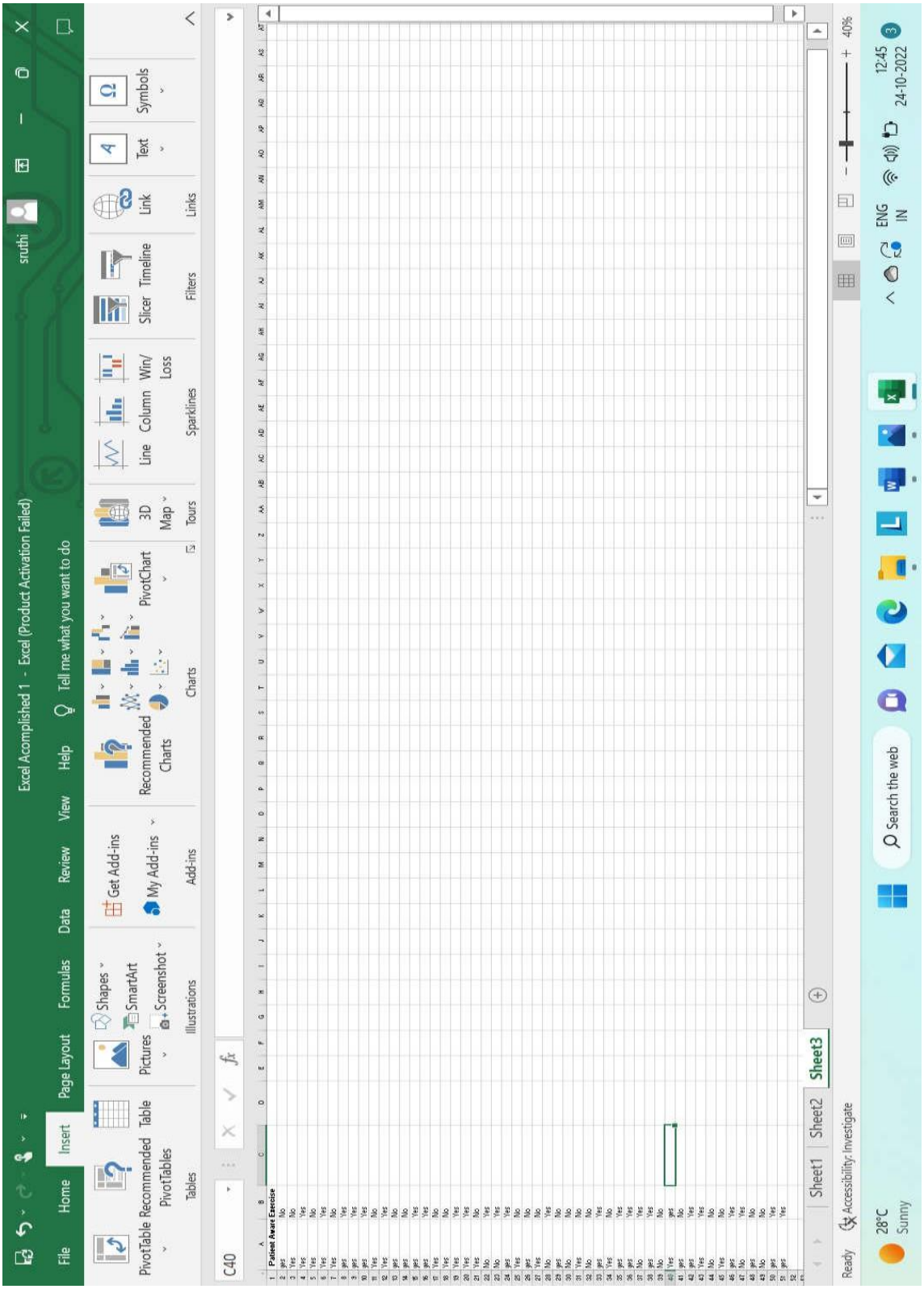
Date:



Name	gender	Age	Weight	Family history	Allergy	Social history	Finance status	Past medical history	Past medication history	Education status	Final report
Seema Banu	Female	26	45	Mother - BP	No	No	Moderate	No	No	Graduate	Depression, Anxiety
Sinchana	Female	14	91	grandmother-BP	Rashes	No	Moderate	Rashes,Itching	Body lotion	10th	Depression, Anxiety
Kusuma	Female	19	60	No	No	No	Moderate	No	No	B.com	Depression, Anxiety
Bibila	Female	30	35	Husband Psychosi	No	No	Low	No	No	No	Depression, Nerve Weakness, Headache
Pallavi	Female	21	55	No	No	No	Moderate	No	No	degree	Depression, Insomnia
Sree	Female	22	60	Aunt-anxiety	No	No	Moderate	No	No	Graduate	Depression
Sachin	Male	29	60	Father-heart patie	No	No	No	Fits	Epnil 200mg, Epnil 100r	B.com	Depression, Anxiety
Umaer ulla khan	Male	23	105	Grandfather- Diab	No	No	Moderate	Kidney Stone	Surgery	Diploma	Anxiety
Guru	Male	23	95	Father-stroke	No	No	Moderate	No	No	PUC	Bipolar Depression
Nagaratna	Female	44	44	Father-BP	No	No	Low	Headache	Stopped-schizoflo 15	No	Depression
Rajamma	Female	46	56	No	No	No	Moderate	No	No	PUC	Depression,anxiety
susmitha	Female	32	66	Mother-BP	No	No	Moderate	No	No	PUC	Depression,Anxiety,psychosis
Aparna.P	Female	48	63	Brother-Psychosis	No	No	Moderate	BP	TM lopine	BAMS	Depression,Anxiety
Ayesha	Female	38	75	Father-Sugar BP	No	NO	Moderate	PCOD	Left treatment	SSLC	Depression
Shruthi P	Female	30	50	No	No	No	Moderate	No	No	Graduate	Depression
Kouserunissa	Female	37	50	No	No	No	Moderate	No	No	No	Depression,Anxiety,Insomania
Manjula	Female	50	50	Husband Stroke	No	No	Moderate	No	No	6th	Depression,Anxiety
Ayesha Siddiqua	Female	38	63	No	No	No	Low	Gastric problem	Esomeprazole,domepei	SSLC	Depression
Reshma	Female	35	81	Mother-BP sugar	Sneezing	No	Moderate	Gastric problem	No	5TH	Depression
Geeta	Female	34	49	Mother BP	No	No	Moderate	migrane,covid 19	No	MSC	Depression
Aruna	Female	32	60	Husband Diabetic	No	No	Moderate	No	No	Graduate	Anxiety,insomnia
Netravati	Female	36	78	Husband Handicar	No	No	Moderate	No	No	Graduate	Depression,anxiety[OCD]
Geeta	Female	43	45	Husband Depressi	No	No	Moderate	No	No	No	Depression,anxiety,psychosis
Nagaratna	Female	48	50	Husband Heart pa	No	No	Moderate	No	No	SSLC	Depression,anxiety

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
25	Nagaratna	Female	48	50	Husband Heart pa	No	No	Moderate	No	No	SSLC	Depression,anxiety			
26	Sreedhar	Male	48	55	Wife BP	No	alcoholic	Moderate	No	No	No	Depression,Psychosis			
27	Mohammed Idris	Male	35	70	Mother-depressio	No	Smoking	Moderate	No	No	SSLC	Anxiety			
28	Prashanth	Male	40	65	Wife-backproblem	No	alcoholic	Moderate	No	No	Graduate	Anxiety			
29	Mahadev	Male	48	50	No	No	Smoking	Moderate	Diabetes	Yes	No	Alcoholic,anxiety			
30	Virendra	Male	35	80	Wife-depression	NO	alcoholic	Low	No	No	No	Depression,alcoholic			
31	Nikhil	Male	30	70	Mother-Diabetics	No	Drug addict	Moderate	Drug addiction	No	B.COM	Depression,anxiety			
32	Venkatesh	Male	50	85	wife-Anxiety,Dipre	No	No	Moderate	Gastric problem	Gavin DSR	No	Depression,anxiety,gastric issues			
33	Rafeeq	Male	40	65	Mother - BP	No	No	Moderate	No	No	No	Anxiety,depression			
34	Govinda	Male	28	85	Father-Diabetics	No	Smoking	Moderate	appendix problem	surgery	PUC	Anxiety			
35	Nagaraju	Male	48	70	No	No	alcoholic	Moderate	No	No	SSLC	Depression			
36	Avinash	Male	36	50	Mother-BP-sugar	no	smoking,drug add	Moderate	No	No	M.com	Deprresion			
37	Puneeth	Male	29	62	Father-Depressior	no	No	Moderate	depression	TND 500MG,T clonavin	IT	Depression			
38	Jaibu unnisha	female	72	60	No	no	No	Moderate	Diabetes,BP	yes	No	Anxiety			
39	Shaheen taj	female	65	31	No	no	No	Moderate	BP	Yes	No	Depression			
40	Indira	Female	56	80	No	Skin allergy	No	Moderate	Diabetes,thyroid,BP	Glycomate,Amlodipine	No	Anxiety			
41	Jayalakshmi	Female	55	70	No	no	No	Moderate	Diabetic patient	Yes	BED	Anxiety			
42	Harish	Male	53	85	Wife-diabetics	no	alcoholic	Moderate	diabeitc	Yes	BAMS	Anxiety,depression			
43	Sathyanarayana	Male	85	60	Wife-kidneystone	no	No	Moderate	diabetic,heart patien	stentt operation	Graduate	anxiety,depression,insomnia			
44	Lokesh	Male	60	55	Wife-BP	no	alcoholic	Low	diabetic	yes	No	Anxiety			
45	Mohammed ali	male	60	80	No	no	No	Low	neurological problen	Nervo plus	PUC	Depression			
46	Savithramma	Female	65	48	No	no	No	Moderate	depression	sizodon ls	6th	depression			
47	Yashashwini	Female	56	75	Son-dipression	no	No	Moderate	diabetic	yes	PUC	Depression,anxiety			
48	Darshan	Male	69	47	No	no	smoking,alcoholic	Low	no	no	no	depression,anxiety,psychosis			
49	Indira	Female	60	60	husband-BP	no	No	Moderate	depression	yes	no	Rinolar Depression			

Drug	Class	Side effect	Indication	Compliance	Suspected drug	Type of event	Adverse effect	Percentage	Action taker	Duration
Fluxetine+Olanzapine Paroxetine+Clonazepam	SSRI + Benzodiazapine		Bipolar depression	Yes						4months
Escitalopram+Clonazepam, D Dpramine,Clonavin	SSRI + Benzodiazapine		Anxiety	No	Escitalopram,Cl	Moderate	Headache, Xerostomia,	24%, 4-9%, 4-7%	Dose reduce	3days[reissue]
Mirtazipine, Escitalopram+Clonazepam	SSRI + Benzodiazapine		Anxiety	Yes	Escitalopram,M	Mild	Weight gain		1% T.Mate	
Paroxetine+Clonazepam	SSRI + Benzodiazapine	Gastric problem	Depression	No						
Mirtazipam, Zoldy	NASSAAD		Depression	Yes	Mirtazipine	Mild	Drowsiness		Dose reduce	days
Clonazepam+Escitalopram, Clonzepam	SSRI + Benzodiazapine		Depression	Yes	Escitalopram	Mild	Dizziness	4-7%		1week
Clonazepam+Desvenlafloxine, D Dipramine,	SNRI + Benzodiazapine		Depression	Yes						5years
Paroxetine+Clonazepam, Escitalopram+Clonazepam	SSRI + Benzodiazapine		Anxiety	No						1.5Years
Quetiapine,Fluoxatine+Olanzapine, Trihexyphenidyl hydr	Anti muscarinic + SSRI		Schizophrenia+depr	Yes						6months
Fluoxetine+Olanzapine, Resperidone+Trihexyphenidyl	SSRI + Benzodiazapine		Depression, Schizo	No						weeks
Paroxetine+Clonazepam, Resperidone	SSRI + Benzodiazapine		Depression, Schizop	Yes	Paroxetine+Clon	Moderate	Dizziness	6-14%		
Paroxetine+Clonazepam,Clozapine	SSRI + Benzodiazepine		Schizophrenia+Anxie	No						
Mietazipine, Amlodipine	Antidepressant, CCB		Depression, Hyperte	Yes						
Fluoxetine+Olanzepine	SSRI		Depression	No						Weeks
Paroxetine+Clonazepam,Clonovin	SSRI		Depression	Yes						Weeks
Fluoxetine+Olanzapine	SSRI	Gastric problem	Depression	Yes					Domeperido	6 months
Fluoxetine+Olanzepine	SSRI+ Benzodiazapine		Anxiety, Depression	No						4years
Paroxetine+Clonazepam, Escitalopram oxalate	SSRI+Benzodiazepine		Depression, Adverse	Yes	Paroxetine	Moderate	Dry mouth	9-18%		
Fluxetine+Olanzapine, Escitalopram+Clonazepam, Dompe	SSRI+Benzodiazepine	Gastric problem	Depression, Anxiety	Yes					Domeperidone+	Rabeprazole
Escitalopram+Clonazepam, Fluxetine+Olanzapine	SSRI+Benzodiazepine		Depression, Anxiety	Yes	Escitalopram	Mild	Weight gain		1%	
Paroxetine+Clonazepam	SSRI+Benzodiazepine		Anxiety	Yes						3months
Fluvoxemine maleateEscitalopram+Clonazepam	SSRI+Benzodiazepine		Anxiety	Yes						8Years
Escitalopram+Clonazepam, Fluxetine+Olazapine,	SSRI+Benzodiazepine		Depression+Anxiety	Yes						6months
Clonazepam+Desvenlafloxine Fluxetine+Olazapine	Benzodiazepine+SNRI									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