CLINICAL ROLE OF PHARMACIST TO IMPROVE MENTAL HEALTH OUTCOMES AMONG VETERANS

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Disclosure Statement
I do not have a vested interest or affiliation with any corporate organization offering financial support or grant money for this continuing education program or any affiliation with an organization whose philosophy could potentially bias any presentation.

OBJECTIVES
• Upon completion of this CE activity, pharmacists, nurses, and other healthcare professionals should be able to:
  • Understand the various types of mental illness that might go untreated:
  • Abuse of drugs and Alcohol to treat mental health problems:
  • Need of pharmacists to educate veterans about the correct TX of mental health conditions:
  • Types of OTC treatments for mental health
  • Interactions with OTC and conventional medications.
  • Ways to reduce the stigma of mental health disorders
  • Identify the various types of mental health disorders and know when to refer for treatment.

OBJECTIVES
• Upon completion of this CE activity, Technicians and students should be able to:
  • Understand the various types of mental illness that might go untreated;
  • Abuse of drugs and Alcohol to treat mental health problems;
  • Need of pharmacists, technicians and students to educate each other and family members about the correct TX of mental health conditions;
  • Types of OTC treatment for mental health;
  • Interactions between OTC agents and conventional medications,
  • Ways to reduce the stigma of mental health disorders
  • Identify the various types of mental health disorders and know when to refer for treatment.
ANXIETY VS DEPRESSION

- Types of Anxiety disorders:
  - SAD – social anxiety disorder – fear of being in public places with the possibility of being embarrassed
  - GAD – Generalized anxiety disorder – excessive anxiety or worry about almost everything and constant worrying
  - PD – panic disorder characterized by intense fear that last for 5 – 10 seconds and then subsides. Not sure when it will occur again.
  - OCD – obsessive compulsive disorders which is characterized by fear and continuous rituals to calm fears that mainly increases the fear more.
  - Separation anxiety – afraid to be separated from love ones, or family members due to fear of something bad happening to love ones.
  - PTSD – removed from anxiety disorder in DSM V criteria, but is still actually an anxiety type of disorder.

ANXIETY VS DEPRESSION

- Treatment for anxiety is usually the use of SSRI – Selective Serotonin receptor uptake inhibitors.
- It inhibits the reuptake of serotonin for the receptors to repackage it and use it again. Instead there is a constant supply of serotonin in the receptor synaptic cleft, leading to increase binding to the serotonin receptor.
- Another type of treatment is the SNRI – Serotonin norepinephrine receptor uptake inhibitors
- It allows for serotonin and norepinephrine to be available to the receptors a lot longer and therefore leads to increase actions.
- The norepinephrine – dopamine receptor reuptake inhibitors – Wellbutrin of bupropion- allows for norepinephrine and dopamine to be available a lot longer in the receptor synaptic cleft.

ANXIETY VS DEPRESSION

- THE SAME AGENTS USED TO TREAT ANXIETY IS ALSO USED TO TREAT DEPRESSION.
- WHY ?????

- DEPRESSION is characterized by having 5 or more of the following symptoms every day for at least 2 weeks – depressed mood, irritability, anxiety, tearfulness and somatic complaints.
- An acronym used is SIGECAPS
ANXIETY VS DEPRESSION

- S - sleep disturbance (insomnia or hypersomnia)
- I - Interest (loss of)
- G - Guilt (excessive)
- Energy (changes in)
- Concentration (impaired)
- Appetite changes (increased or decreased)
- Psychomotor agitation or retardation
- Suicidal ideations or actions
- Somatic complaints – (GI disturbances, headaches, muscle pain)

ANXIETY VS DEPRESSION

- If anxiety goes untreated for a long period of time, depending on the severity it can produce depression symptoms next.
- That is why it is important to recognize and get therapy as soon as possible.
- Pills are not the only way to treat depression and anxiety.
- Psychotherapy –
  - CBT – Cognitive behavior therapy – patient are taught to recognize bad thoughts and learn how to change thought processes.
  - ECT – Electroconvulsive therapy – for severe depression.

EVALUATION CASE STUDY

- A woman is 24 years old female, complains of chest pain, shortness of breath and impending dome while in a crowded shopping center, this has occurred on more than one occasion and after travelling to the ER. At the ER it was determined that they was no cardiac involvement.
- 1) What type of anxiety disorder is this condition?
  - a) Social Anxiety
  - b) Panic disorder
  - c) Generalized anxiety disorder
  - d) Separation anxiety

EVALUATION CASE STUDY

- After many months of this disorder the patient has stop socializing with her friends, and has stop leaving the house even to but groceries. What type of symptom is this patient experiencing?
  - a) Guilt
  - b) Loss of interest
  - c) Isolation
  - d) Changes in energy

- How would this condition be treated with what agent?
  - a) SSRI b) Buspar c) Lorazepam d) St. John’s wort
BIPOLAR DISORDER

Bipolar Disorder

- A spectrum of affective episodes including:
  - Manic episode
  - Mixed episode
  - Hypomanic episode
  - Rapid cycling

- Bipolar I Disorder
- Bipolar II Disorder
- Bipolar III Disorder
- Cyclothymia

DIAGNOSTIC CRITERIA

Diagnostic Criteria
Manic Episode:

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week (or any duration if hospitalization is necessary).

B. Same as for hypomanic episode

HYPOMANIC

Diagnostic Criteria: Hypomanic Episode:

- Inflated self-esteem or grandiosity
- Decreased need for sleep (feels rested after only 3 hours of sleep)
- More talkative than usual or pressure to keep talking

HYPOMANIC CRITERIA

Diagnostic Criteria: Hypomanic Episode:

(continued)

- D. Disturbance of ideas or subjective experience that thoughts are racing

- E. distractibility (attention too easily drawn to unimportant external stimuli)

- F. increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
**SPECTRUM OF MOODS**

- **Mania**
- **Bipolar I**
- **Hypomania**
- **Cyclothymia**
- **Bipolar II**
- **Dysthymia**
- **Depression**

**DIAGNOSTIC CRITERIA**

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<thead>
<tr>
<th>Criteria</th>
<th>Manic</th>
<th>Hypomania</th>
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<tr>
<td>Minimum treatment to diagnosis</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Number of symptoms for diagnosis</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manic</td>
<td>Yes</td>
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<td>Hypomanic</td>
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<td>Yes</td>
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<tr>
<td>Sleep disturbance</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>More active</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Flight of ideas</td>
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<td>Yes</td>
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<tr>
<td>Depression</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Unusual or decreased activity</td>
<td>No</td>
<td>Yes</td>
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<td>Phyto behavior</td>
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<td>Yes</td>
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<td>Social impairment or withdrawal</td>
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<td>No</td>
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<td>Psychotic symptoms</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>May require hospitalization</td>
<td>No</td>
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</tr>
</tbody>
</table>

**BIPOLAR DISORDER 1 OR 11**

- **BIPOLAR TERMS** used to be called manic depressive disorders.
- Bipolar 1 – a person who has had at least one manic episode in his/her lifetime.
- Bipolar 11 – mainly characterized by depressive episode and hypomanic episode.
- Manic is characterized by period of loud expansive mood, with requirement of little sleep and thoughts of only self pleasurable activities, that usually require either hospitalization or incarceration.
- Hypomanic is usually period of high expansive mood but not at the severity of manic and requiring less need for sleep. Usually lasting 4-7 days, before crashing into depression.

**BIPOLAR 1 OR 11**

- Most patients with bipolar type 11 usually goes to their doctor when they are in a depressive episode.
- When in a hypomanic episode, they feel good, extra energy and able to do a lot of tasks, but might not finish any of them completely.
- In the manic phasic, have lot of racing thoughts and want to do a lot of different things, but might never complete anything.
- In manic phase more interested with the pleasurable activities, than work or production.
- Which usually lead to overspending, extra martial affairs with many partners, gambling and doing drugs and often questionable activities that may end up in jail or hospital.
- Treatment is often complex, and usually ends up with a lot of non-compliance.
TREATMENT OF BIPOLAR 1 AND 11

- DRUG OF CHOICE IS LITHIUM.
- MOOD STABILIZER – DEPAKOTE, CARBAMAZEPINE, LAMICTAL,
- SSRI, SNRI – BUT MUST BE ACCOMPANIED BY A MOOD STABILIZER ON BOARD OTHERWISE IT MAY CAUSE SWITCHING TO MANIA
- BUPROPION IS THE ONLY ANTIDEPRESSANT THAT IS LESS LIKELY TO CAUSE SWITCHING TO MANIA.
- WHY DOES ANTI-EPILEPTIC AGENT HELP WITH MOOD STABILIZATION
  - IT ACTUALLY SLOWS DOWN THE FAST RACING THOUGHTS AND GIVE THE BRAIN TIME TO MAKE RATIONAL DECISION INSTEAD OF BEING IMPULSIVE.
- BIPOLAR PATIENTS DON’T LIKE THE FEELING AND IS THEREFORE NON-COMPLIANT.

DRUG OF CHOICE FOR MANIA

Lithium

- Much more recommended treatment for Bipolar Disorder
  - 50% success in reducing acute manic and hypomanic states
  - Some of non-compliance medication, side effects and relapse rate with its use are being examined.
  - Some drugs are used with Bipolar I and II, studies have been inconclusive as to which drug might be better for BP II

OTHER AGENTS USED IN THE TREATMENT OF BIPOLAR DISORDER

- DEPAKOTE – VALPROIC ACID
- TEGRETOL – CARBAMAZEPINE
- TRILEPTAL – OXCARBAMAZEPINE
- LAMICTAL – LAMOTRIGINE – MAINLY FOR BIPOLAR 11
- SECOND GENERATION ANTIPSYCHOTIC AGENTS
  - ABILIFY – ARIPIPRAZOLE
  - OLanzapine-Zyprexa
  - RISPERIDONE-RISPERDAL
  - QUETIAPINE-SEROQUEL

EXPLANATIONS OF MOA OF ANTI-EPILEPTIC

Hyperpolarization

- If cell becomes more negative than resting it is called hyperpolarized
- Action potential (AP) is cell moving through depolarization, repolarization, and hyperpolarization
EVALUATION CASE STUDY

- Rodney is a 24 year old man, that was diagnosed with depressive symptoms, and went to his PCP complaining of not being able to sleep for a few days and low energy and tearful most days. He can’t explain why he is so tearful. His PCP prescribed sertraline for him with a slow gradual increased in dose. Two weeks later, he is out on the neighbours lawn swimming in the nude without any pool. The police is called and he was Baker acted to a psychiatric ward for 3 days observation. What is probably Rodney’s diagnosis?
  - A) Bipolar 1 disorder
  - B) Bipolar C Psychotic features
  - C) Bipolar 11 disorder
  - D) Depression

FROM HIS DIFFERENTIAL DIAGNOSIS WHAT MEDICATIONS SHOULD RODNEY BE TREATED WITH AT THIS TIME.

- A) Lamictal
- B) Propranolol
- C) Lithium
- D) Aripiprazole

IF RODNEY IS TREATED WITH LITHIUM WHAT MONITORING IS NECESSARY FOR NEEDED FOR THIS MEDICATION?

- A) Lithium level in 5 days
- B) Lithium level in 2 days
- C) Lithium level in 2 weeks
- D) Lithium level in 6 months

SCHIZOPHRENIA

- Come on in the late teen to early twenties
- It can occurred in male : female equally.
- Can be due to hereditary
- Affects 1% of the population,
- It can be due to exposure from cannabis and methamphetamines

- Types of symptoms
  - Positive
  - Hallucinations
  - Delusion
  - Movement disorder
  - Negative
  - Loss of interest
  - Lack of emotions
  - Social withdrawal
  - Cognitive
  - Problems making designs
  - Memory problems
TREATMENT OF SCHIZOPHRENIA

• USE OF EITHER FIRST GENERATION ANTIPSYCHOTIC AGENTS
  • Haloperidol
  • Chlorpromazine
  • Fluphenazine
  • Perphenazine
  • Thorazine
  • OR

• USE OF SECOND GENERATION ANTIPSYCHOTIC AGENTS
  • Risperidone
  • Aripiprazole
  • Olanzapine
  • Clozapine

THE CHOICE TO TREAT SCHIZOPHRENIA, NEEDS TO LOOK AT THE ENTIRE INDIVIDUAL, BEFORE CHOOSING AN ANTIPSYCHOTIC AGENT.

• NEED TO LOOK AT:
  • MEDICAL HX
  • HEIGHT, WEIGHT, BMI
  • ALLERGIES
  • RACE
  • PREVIOUS USE OF ANTIPSYCHOTIC AND WHAT WORKED
  • FAMILY HX AND WHAT MEDICATION WORKED IN THE PAST IN OTHER FAMILY MEMBERS
  • AGE OF THE PATIENT.

POSSIBLE ADVERSE EFFECTS OF ATYPICAL ANTIPSYCHOTIC DRUGS

EVALUATION CASE STUDY

A STUDENT IS FOUND WALKING THE ROAD IN NEW YORK IN THE DEAD OF WINTER IN A BATHING SHORTS, WHEN ASKED WHAT HE IS DOING HE SAYS HE IS WALKING TO THE BEACH. HE WAS PICK UP BY THE POLICE AND CARRIED IN FOR EVALUATION. IT WAS DISCOVERED THAT HE WAS IN HIS JUNIOR YEAR OF COLLEGE AND ALL OF A SUDDEN OVER THE LAST SIX MONTHS HE BEGAN BEHAVING WEIRD TO HIS CLASSMATES. WHAT IS ONE OF THE FIRST BLOOD TEST THAT HE HAS TO BE DONE?

• A) EKG
• B) UDS
• C) CHEM 8
• D) CBC
EVALUATIONS CASE STUDY:

• IS THERE A TEST FOR SCHIZOPHRENIA
  • A) TRUE
  • B) FALSE

• SAM HAS JUST BEEN DIAGNOSED WITH SCHIZOPHRENIA AFTER A YEAR OF CONTINUOUS SYMPTOMS. HE IS OVERWEIGHT, AND IS A TYPE 1 DIABETIC. WHICH AGENT WOULD BE A GOOD CHOICE TO START SAM ON AND TO CONTINUE FOR CONTINUOUS THERAPY?
  • A) OLANZAPINE
  • B) HALDOL
  • C) ARIPIPRAZOLE
  • D) QUETIAPINE

PERSONALITY DISORDERS

• COMES IN THREE MAIN GROUPS AND JUST ADDS TO THE FURTHER COMPLICATION OF DIAGNOSIS WITH MENTAL HEALTH ILLNESS.
  • CLUSTER A – ODD
  • CLUSTER B – DRAMATIC
  • CLUSTER C – ANXIOUS OR FEARFUL

PERSONALITY DISORDER

• JUST A FURTHER DEMONSTRATION OF THE DIFFERENT TYPES OF PERSONALITIES.

ABUSE OF DRUGS AND ALCOHOL

• WHY ALCOHOL IS THE MOST ABUSE DRUG ALONG WITH NICOTINE
• MOST PEOPLE WITH ANXIETY OR DEPRESSIVE SYMPTOMS DON’T WANT TO ADMIT THAT SOMETHING IS WRONG
  • SO INSTEAD THEY BEGIN WITH A GLASS OF WINE TO LOOSEN UP, THEN MAYBE 2-3 AND BEFORE YOU KNOW IT, THE ENTIRE BOTTLE. BUT AS FAR AS THEY ARE CONCERN, THEY ARE STILL IN CONTROL.
• NICOTINE TENDS TO HELP WITH ANXITIES AND AT THE SAME TIME ADD TO ANXIETY IF YOU TRY TO REDUCE THE AMOUNT YOU TAKE.
• IT IS VERY ADDICTIVE AND QUICKLY BECOME ADDICTIVE TO THE PRODUCT.
ABUSE OF DRUGS AND ALCOHOL

Alcohol – long-term effects
Drinking a lot of alcohol regularly over a period of time is likely to cause physical, emotional, and social problems:
- skin problems
- liver and brain damage
- damage to reproductive organs
- memory loss / confusion
- heart and blood disorders
- stomach problems
- frequent infections
- weight gain
- depression
- relationship problems
- problems with money and work.

DURGS OF ABUSE

The effects of Cocaine
Cocaine eats away the side of nose and nasal turbin.
- Causes teeth to weaken and break.
- Causes heart attack and death.
- Causes seizures and headaches.
- Causes extreme weight loss.

ABUSE OF DRUGS AND ALCOHOL

MARIJUANA

Effects of Cannabis
- Approved in treatment of glaucoma.
- Reduces pain, nausea, and vomiting.
- Reduces muscle tension.
- Reduces seizures.
- Reduces appetite.
- Increases appetite.
- Relieves muscle and joint pain.
- Relieves anxiety.
- Relieves insomnia.
- Relieves nausea.
- Relieves pain.
- Increases heartbeat.
- Increases appetite.
- Increases alertness.
- Increases energy.
- Increases heart rate.
- Increased risk for heart attack.
- Increased risk for stroke.
DRUGS OF ABUSE

- Difficulty paying attention
- Amotivation
- Loss of short term memory
- Increased heart rate
- Sadness or fearfulness
- Anxiety and panic

Effects of Marijuana Use

Immediate Effects of Marijuana Use:
- Inability to think or speak clearly
- Difficulty paying attention
- Loss of short-term memory
- Lack of coordination, slowed reaction time
- Increased heart rate and appetite
- Unusual sensitivity to sights and sounds
- Dizziness or fearfulness

Long-Term Effects of Marijuana:
- Problems with normal body awareness in young users
- Damage to lung tissue and the larynx from high cancer
- Feelings of anxiety and panic
- Possible psychological dependence
- Possible inability to have children

WHAT DOES EDUCATION DO FOR VETERANS

- First we do educational classes on
  - Opioid safety
  - Cigarette cessation
  - Substance abuse
  - Post traumatic disorder

- The four weeks classes start with:
  - One week introduction to substance abuse or PTSD
  - 2nd week – symptoms and effects on the body systems
  - 3rd week - treatment of either SA or PTSD
  - 4th week – living with and coping with a diagnosis of SA or PTSD

METHAMPHETAMINE EFFECTS ON THE BODY.

<table>
<thead>
<tr>
<th>Short-term effects can include:</th>
<th>Long-term effects can include:</th>
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<tbody>
<tr>
<td>Increased energy and decreased fatigue</td>
<td>Decreased appetite</td>
</tr>
<tr>
<td>Increased activity</td>
<td>Hypertension and heart failure</td>
</tr>
<tr>
<td>Decreased appetite</td>
<td>Increased heart rate</td>
</tr>
<tr>
<td>Hypertension and heart failure</td>
<td>Increased body temperature</td>
</tr>
<tr>
<td>Increased respiration</td>
<td>Methamphetamine and addiction psychosis</td>
</tr>
<tr>
<td>Heat stroke</td>
<td>Increased risk of heart attack</td>
</tr>
</tbody>
</table>

WHAT DO EDUCATION DO FOR VETERANS

- Most veterans like the fact that they are learning about the medications that are being used and how they work to help with the condition.
- The same way that the pharmacist has been instrumental in educating the public about diabetes and hypertension.
- Veterans need education about their symptoms and what effects the drugs of abuse and the drugs that are conventional agents have on their bodies.
- One questions are they substituting one drug of abuse for another drug of abuse and we definitely explains the mechanism of actions.
- They also want to know if they will be able to stop the medication and when.
WHAT DOES EDUCATION DO FOR THE PUBLIC

• EDUCATION MAKES THE VETERAN MORE INFORMED ABOUT BOTH THE CONDITION AND THE TREATMENT OF THE CONDITIONS.
• IT MAKES THEM AWARE OF POSSIBLE SIDE EFFECTS AND WHY THEY OCCUR AND WHAT AGENTS MIGHT BE AN ALTERNATIVE FOR TREATMENT OF THE SIDE EFFECTS.
• FOR SSRI INDUCED SEXUAL SIDE EFFECTS, WE COULD RECOMMEND TALKING TO THEIR DOCTORS ABOUT CHANGING THE AGENT TO ANOTHER ANTIDEPRESSANT SUCH AS BUPROPION.
• OR TAKING A SEROTONERGIC AGONIST – CYPROHEPTADINE ABOUT 2 HR BEFORE SEXUAL SIDE EFFECT.
• THE USE OF DRUG OF ABUSE TO TREAT PTSD IS USUALLY A WORSE EFFECT TO TREAT THE PROBLEM, BUT PRODUCES A WORSE REACTION.

EVALUATION

• VETERAN CAME INTO EMERGENCY ROOM COMPLAINING OF SUICIDAL IDEATIONS, WITH A PLAN TO JUMP IN FRONT OF A CAR. COMPLAINS OF HOMELESSNESS, COCAINE AND ALCOHOL ABUSE AND HE HAS NO PLACE TO GO, COMPLAINS OF DEPRESSION, LONELINESS AND TEARFUL FOR PAST MONTH, AFTER WIFE HAS LEFT HIM. HIS UDS WAS POSITIVE FOR COCAINE, ALCOHOL AND BENZOS.
• WHAT IS THE MAIN CAUSE OF HIS DEPRESSION.
  • A) HOMELESSNESS
  • B) WIFE LEFT HIM
  • C) DRUGS AND ALCOHOL
  • D) ALL OF THE ABOVE.

EVALUATION

• WHAT DIAGNOSIS SHOULD HE BE TREATED FOR FIRST?
  • A) ALCOHOL WITHDRAWAL
  • B) COCAINE WITHDRAWAL
  • C) DEPRESSION
  • D) A AND B

WHAT IS THE FIRST AGENTS WILL BE USED TO TREAT ALCOHOL WITHDRAWAL?
A) LORAZEPAM
B) CLONIDINE
C) NAPROXEN
D) ALL OF THE ABOVE

TYPES OF OTC AGENTS USED FOR MENTAL ILLNESS

• ST. JOHN’S WORT
• CHAMOMILE
• LEMON BALM
• ROSEMARY
• VALERIAN
• SAMe
• FOLATE AND L-METHYLFOlate
• OMEGA-3 FATTY ACIDS
### TYPES OF OTC MEDICATIONS FOR MENTAL ILLNESS

- **ST. JOHN'S WORT**
  - Inhibits 5-HT, NE and DA transporter
  - Also weak non-selective inhibition of MAO
  - Dose 300mg daily
  - Can interact with other SSRI or SNRI to produce Serotonin syndrome.
  - Should not be used with other conventional agents

- **SAMe**
  - Methyl donor in the synthesis of dopamine and Serotonin.
  - Dose – 800-1600 mg per day or IM 400mg.
  - Not regulated by FDA
  - Used for depression, very expensive.

### TYPES OF OTC AGENTS USED FOR MENTAL ILLNESS

- **OMEGA-3 FATTY ACIDS**
  - Contains eicosapentaenoic acid (EPA) docosahexaenoic acid (DHA).
  - Dose range from 1 – 9 grams per day.
  - Adverse effects – GI upset, diarrhea, constipation.
  - Use for mood stabilizer and as an antidepressant

**Magnesium hydroxide**
- Helps regulate calcium, copper, zinc, potassium, vitamin D levels
- Used for anxiety, insomnia, headache, irritability, HTN, headaches
- Activates co-enzymes

### OTC AGENTS

**BENEFITS OF VALERIAN ESSENTIAL OIL**
- Enhances mood and overall wellness
- Reduces anxiety and stress
- Improves sleep quality
- Helps with depression and anxiety
- Enhances brain function and memory
- Helps with pain and inflammation
- Promotes relaxation and calmness

**HERBS AND OTC AGENTS**

- **KAVA ROOT**
  - A drink prepared for use in anxiety, insomnia.
  - Enhanced ligand binding to GABA A receptors
  - Acts to elevate mood, well being
  - Kratom found in spice and various OTC drugs.

- **KRATOM**
  - Works as a stimulant and sedative
  - Induces feelings of calm
  - Stimulates the mind and cortex
  - Acts as a sedative
  - Comes from the leaves of the plant

**SIMILARITIES**
- Improve alertness
- Induce euphoria
- Reduce stress
- Promote feelings of contentment

**Dr. Ali**
HERBS
AND OTC AGENTS

• PASSION FRUIT – MADE INTO A DRINK
• SEDATIVE EFFECT
• CALMING
• CAN BE USED FOR GAD

INTERACTION BETWEEN OTC AND CONVENTIONAL MEDICATIONS

• KAVA – CAN CAUSE LIVER DAMAGE AND LIVER TOXICITY
• ST. JOHN’S WORT AND SSRI – MAY LEAD TO SEROTONIN SYNDROME
• SIGNIFICANT INTERACTIONS WITH OTHER ANTIDEPRESSANTS
• SHOULD NOT USE ST JOHN’S WORT WITH SSRI’S, TCA, OR MAOI’S
• OMEGA FATTY ACIDS MAY INTERACT WITH SSRI AND ANTICOAGULANT TO INCREASED THE RISK OF BLEEDING.
• PASSION FLOWER WITH OTHER SEDATIVES, ANTICONVULSANT, TCA, AND ANTICONVULSANT.
• CHAMOMILE INTERACTION WITH WARFARIN AND CYCLOSPORINE –
• DERMATITIS

INTERACTIONS WITH OTC AND CONVENTIONAL MEDICATIONS

• BEWARE OF THE TYPE OF ALDULTERANTS IN PRODUCTS.
• WHETHER IT WAS THE LEAF, BARK, OR ROOT COULD MAKE THE DIFFERENCE IN POTENCY.
• INTERACTIONS WITH CONVENTIONAL AGENTS
• PLEASE USE ONE TYPE OF AGENTS EITHER HERBAL OR CONVENTIONAL THERAPY
• BEWARE OF HERBAL AGENTS THAT CURE EVERYTHING, KNOWING THAT EVERY HERB AND MEDICATION ALWAYS HAVE SOME ADVERSE EFFECTS.
• BEWARE OF HERBAL MEDICATIONS THAT STATE NO ADVERSE EFFECTS, MAY BE NOT DOING ANYTHING EITHER.

EVALUATION - CASE STUDY

• A PATIENT COMES TO THE DRUG STORE COMPLAINING OF SEVERE ANXIETY SINCE BEGINNING TO TAKE ST JOHN’S WORT ABOUT TWO WEEKS AGO. SHE IS TAKING 3 TABLETS A DAY, AND IS NOT SLEEPING AS GOOD WORSE THAN WHEN SHE BEGAN TAKING THE ST JOHN’S WORT.
• WHAT DO YOU TELL THIS PATIENT TO DO?
• A) STOP TAKING THE TABLETS
• B) REDUCE THE DOSE TO 2 TABLETS A DAY
• C) REDUCE THE DOSE TO 1 TABLET A DAY
• D) STOP TAKING MEDICATION FOR A WEEK AND THEN RESTART AGAIN.
EVALUATION – CASE STUDY

• A VETERAN COMES INTO THE DRUG STORE WANTING SOMETHING FOR SLEEP. HE CAN’T SLEEP VERY WELL AND IS VERY IRRITABLE IN THE MORNING. WHAT DO YOU RECOMMEND TO THIS VETERAN?
  • A) DIPHENHYDRAMINE 25MG PO AT BEDTIME
  • B) DOXYLAMINE 25MG PO AT BEDTIME
  • C) VALERIAN TEA AT BEDTIME
  • D) REFER TO MENTAL HEALTH COUNSELLOR

• TWO WEEKS LATER HE COMES BACK AND COMPLAINS THAT HE IS WAKING UP WITH NIGHTMARES AND CAN’T GET BACK TO SLEEP. HIS IRRITABILITY IS WORSE, AND HIS WIFE WANTS TO LEAVE HIM.
  • A) INCREASE DOSE OF SLEEP AID
  • B) REFER TO PCP DOCTOR
  • C) REFER TO MENTAL HEALTH DOCTOR
  • D) RECOMMEND KAVA TEA

EVALUATION CASE STUDY

• VETERAN GOES TO HIS MENTAL HEALTH PHYSICIAN, WHAT WOULD YOU EXPECT THAT HIS PSYCHIATRIST WOULD GIVE TO THIS VETERAN FOR HIS NIGHTMARES?
  • A) PRAZOSIN
  • B) ARIPIPRAZOLE
  • C) SERTRALINE
  • D) PROPRANOLOL

• WHAT WOULD YOU EXPECT HIS PSYCHIATRIST TO GIVE HIM FOR HIS ANXIETY?
  • A) PRAZOSIN
  • B) ARIPIPRAZOLE
  • C) SERTRALINE
  • D) PROPRANOLOL

EVALUATION CASE STUDY

• THE VETERAN COMES BACK TO THE PHARMACY COMPLAINING OF STILL HAVING SUICIDAL IDEATIONS AFTER 2 WEEKS OF THERAPY. WHAT SHOULD THE PHARMACIST ADVICE THE VETERAN?
  • A) STOP TAKING MEDICATION
  • B) CONTACT MENTAL HEALTH PHYSICIAN
  • C) INCREASE THE DOSE OF SERTRALINE
  • D) CONTINUE TAKING MEDICATIONS AS THE MEDICATION MAY TAKE 6 WEEKS TO HAVE AN EFFECT.

STIGMA

I hate People assuming that having a mental illness makes me CRAZY
REFERENCES

• 1) CPNP 2016-2017 Anxiety and anxiety related disorders pg. 1-79.
• 2) CPNP 2016-2017 Bipolar disorder pg. 127-181.
• 3) CPNP 2016-2017; Depression, pg. 181-243
• 4) CPNP 2016-2017; Schizophrenia spectrum and other psychotic disorders, pg. 579 – 645
• www.SAMHSA.gov. Treatment of mental disorders, last updated 10/27/2015