**Module 9 Questions: Behavioral Disorders**

**I. Definitions/Abbreviations**

**Tardive dyskinesia** - is a serious side effect possibly occur when taking certain mental illness medications. The symptoms of TD may appear as repetitive, jerking movements that occur in the face, neck, and tongue.

**SSRI-** are a group of prescribed medications used to treat depression, obsessive-compulsive disorder, social anxiety disorder, and a variety of additional psychiatric conditions.

**Somatization Disorder-** is a common mental disorder such as anxiety disorders, depressive disorders, stress‐related physical conditions like pain, and gastrointestinal discomfort, certain behavior disorders and personality disorders.

**Bipolar Disorder**- is also known as manic-depressive illness. It is a brain disorder that causes unusual shifts in mood, behavior, energy, activity levels, the ability to carry out daily tasks, and the overall personal perception about life and relationship tour others.

**Munchhausen Syndrome**- is a psychiatric disease characterized by pathological lying and malingering. It’s a mental disorder in which the person recurrently and deliberately acts as if he or she has a very severe physical or mental illness but he or she is not actually sick.

**Malingering-** is a false and fraudulent simulation or exaggeration of physical or mental disease or defect. Patients performed behavior in order to obtain money or drugs or to evade duty or criminal responsibility.

**II. Pathophysiology**

**A. Describe the clinical symptoms which are manifested by patients with anorexia nervosa. How do these differ from the clinical symptoms of patients with bulimia?** Some symptoms of anorexia are: excessive exercising, depression, weakness, exhaustion, constipation, and loss of menstrual period in women. A major symptom of bulimia is binging and purging. Bulimics practice binging, eating large amounts of food at one time, and purging, causing themselves to vomit, or defecate, in an attempt to prevent weight gain . Anorexics, however, restrict their diets and starve themselves in attempt to stay thin and if possible, lose more weight.

**What criteria are used to diagnose anorexia nervosa, bulimia and EDNOS**?

To be diagnosed as having Anorexia Nervosa a person must display: Persistent restriction of energy intake leading to significantly low body weight (in context of what is minimally expected for age, sex, developmental trajectory, and physical health). Either an intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain (even though significantly low weight). Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight. To be diagnosed as having Bulimia Nervosa a person must display:

Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following: Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances. A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating). Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise. The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for three months. Self-evaluation is unduly influenced by body shape and weight. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

EDNOS- eating disorder that does not meet enough criteria to be qualified as anorexia nervosa, bulimia nervosa or binge eating.

**B. Describe the clinical symptoms of depression. How might diet impact the neurophysiological factors associated with this disorder?** symptoms are Persistent sadness, Feeling hopelessness, or pessimism, Irritability, Feelings of guilt, worthlessness, or helplessness, Loss of interest or pleasure in hobbies and activities, general fatigue, Moving or talking more slowly, Feeling restless or having trouble sitting still, Difficulty concentrating, remembering, or making decisions, Difficulty sleeping, early-morning awakening, or oversleeping, Appetite and/or weight changes, Thoughts of death or suicide, or suicide attempts, Aches or pains, headaches and cramps. What we eat can determine how we feel but how we feel can also determine what we eat. Food and the chemicals in our brains interact to keep us going throughout the day. It is important to eat a variety of healthy foods, as they have different effects on our brains. For example, carbohydrates increase serotonin, a brain chemical that has a calming effect. Protein-rich foods increase tyrosine, dopamine, and norepinephrine, which help to increase alertness. In addition, certain healthy fats (omega-3 fatty acids) become part of the membranes of brain cells and control many brain processes.

**C. Describe the most common clinical symptoms of a patient with Bipolar disorder. How might these impact nutritional intake?** Mood episodes, changes in sleep patterns and activity levels and changes in overall behavior. At the period of depressed episode, patient may be felling fatigue, sleepy, not waking up for Breakfast or lunch, or lack of appetite.

**III. Drug Therapy**

**A. For each of the following classifications of drugs provide:**

**Indication/contraindication for use, nutrient/ drug interactions, side effects of the drug. The answer to this question may be provided in chart form. Note that examples of specific drugs that fall within each classification are provided.**

1. **Neuroleptic**: Risperidone, olanzapine, clozapine, aripiprazole (ability).

**Indication of use** - Risperidone is used to treat schizophrenia and symptoms of bipolar disorder (manic depression). Risperidone is also used in autistic children to treat symptoms of irritability. **Drug effects**- weight gain; feeling hot or cold, headache, dizziness; drowsiness, tired feeling, dry mouth, increased appetite, feeling restless or anxious. Take without food /Avoid Alcohol.

**Olanzapine** – used to treat Bipolar disorder: as monotherapy or with lithium or valproate for short-term use in acute mixed or manic episodes, or for maintenance. Side effects Trouble controlling body movements, twitching, change in balance, trouble swallowing or speaking, Mood changes, If you are planning to harm yourself or the want to harm yourself gets worse, Change in the way you act, Very bad dizziness or passing out, Fast or slow heartbeat. Nutrient drug interaction, Take without food / avoid alcohol.

**Clozapine-** treat patients with schizophrenia or schizoaffective disorder are schizophrenia symptoms partially or fully resistant to treatment with other antipsychotic drugs, or accompanied by persistent suicidal or self-injurious behavior. Take without food, avoid caffeine, causes constipation increase fiber and water.

**Ability**- Indication, Treatment of Tourette’s Disorder. Side effects Adult patients (monotherapy) with bipolar mania: akathisia, sedation, restlessness, tremor, and extrapyramidal disorder • Adult patients (adjunctive therapy with lithium or valproate) with bipolar mania: akathisia, insomnia, and extrapyramidal disorder • Pediatric patients (10 to 17 years) with bipolar mania: somnolence, extrapyramidal disorder, fatigue, nausea, akathisia, blurred vision, salivary hypersecretion, and dizziness. Drug interaction Take without food, avoid alcohol, Grapefruit juice, and citric fruits.

1. **TCA** (tricyclic antidepressants): Elavil acts quickly on pain and its action is unaffected by simultaneous depressive states. It can be used successfully for post herpetic neuralgias and other peripheral neuropathies (e.g. diabetes) and for interval therapy of migraines. Effects Drowsiness, dizziness, dry mouth, blurred vision, constipation, weight gain, or trouble urinating may occur. **Drug interaction**- Take with food avoid carbonated beverage and grapefruit juice. Fiber may decrease drug effect.
2. **Pamelor** – used to treat Depression. Interaction increased risk of serotonin syndrome with other serotonergic drugs (eg, triptans, tricyclic antidepressants, fentanyl, lithium, tramadol, tryptophan, buspirone, St. John's Wort) or with drugs that impair serotonin metabolism (eg, MAOIs, linezolid, IV methylene blue). Potentiates alcohol, sympathomimetic.

* **Stimulants: Adderall** - is used primarily to treat the symptoms of attention-deficit hyperactivity disorder (ADHD). It has benefits with sleep disorders and reported, off-label utility in managing some forms of severe depression as well. **Interaction** - Limit caffeine intake, avoid high dose of Vitamin C. Cranberry decree half live of the drug. Effects head ache, dry mouth, hoarseness, nausea.

1. **Ritalin**- It is used for the treatment of Attention-Deficit Hyperactivity Disorder. Interaction Avoid alcohol, limit caffeine, increase calcium intake. effects fast, pounding, or uneven heartbeats, feeling like you might pass out, fever, sore throat, and headache with a severe blistering, peeling, and red skin rash, aggression, restlessness, hallucinations, unusual behavior, or motor tics (muscle twitches),easy bruising.
2. **Alcohol deterrent**: Antabuse- aid in the management of selected chronic alcohol patients who want to remain in a state of enforced sobriety so that supportive and psychotherapeutic treatment may be applied to best advantage. Interaction Patients who are receiving or have recently received metronidazole, paraldehyde, alcohol, or alcohol-containing preparations, e.g., cough syrups, tonics and the like, should not be given disulfiram. Effects Headache, fatigue rise cholesterol level.
3. **Naltrexone -** is used to prevent people who have been addicted to certain drugs (opiates) from taking them again. It is used as part of a complete treatment program for drug abuse (e.g., compliance monitoring, counseling, behavioral contract, lifestyle changes). Effects Fatigue, rash, headache, muscle/ joint pain. Interaction- Avoid alcohol Increase thirst and decrease sodium absorption.

**B. Discuss the use of lithium therapy. Include indications/contraindications for use, its effect on sodium balance in relation to dietary implications, and possible complications associated with its use.** Is often prescribed as a mood stabilizer for patients with bipolar disorder More Common: Increased frequency of urination; increased thirst; nausea; trembling of hands (slight) Less Common: Acne or skin rash; bloated feeling or pressure in the stomach; muscle twitching (slight). Weight gain and cognitive impairment from lithium tend to be more distressing to patients, more difficult to manage and more likely to be associated with lithium nonadherence. Lithium has adverse effects on the kidneys, thyroid gland and parathyroid glands, necessitating monitoring of these organ functions through periodic blood tests. In most cases, lithium-associated renal effects are relatively mild. Lithium creates a sodium imbalance body decreasing the levels.

**IV. Nutritional Management**

**A. What are the nutritional considerations in the management of a patient with major depression?** : Diet rich in protein from fish, poultry and lean meat , fruits and vegetables, whole grains, monounsaturated fatty acid foods such a flaxseed, chia and legumes. Vitamins thiamine, riboflavin, niacin, and vitamin B6 and B12, and mineral such as Iron is helpful in the management of depression.

**B. Discuss the effects of alcohol abuse on a patient’s nutritional status. What dietary recommendations would you give to an alcoholic patient?** The ingestion of acute heavy amounts of alcohol leads to lipid storage and to an increase in body weight via its lipid-oxidizing suppressive effect, representing a risk factor for obesity. Chronic alcohol abuse deeply affects nutritional status, firstly due to the fact that ethanol may supply more than 50% of the dietary energy in alcoholics, partly related to the high caloric content of ethanol and partly due to the action of alcohol as an appetite suppressant, and therefore displaces normal nutrients such as folate, thiamine and other vitamins. Optimal recommendation emphasizes protein from fish, poultry and lean meat, fresh vegetables and fruit, legumes and whole-grain breads and cereals.

**C. What are the nutritional goals for patients with anorexia nervosa? What are the nutritional goals for patients with bulimia nervosa?** **Describe methods for achieving successful food intake with these patients**. The main goal of AN is to increase calories intake to promote weight gain, restore electrolyte balance and provide counseling to redirected unwanted behaviors related to food. Most patients with anorexia nervosa can be refed orally (either by eating regular meals or by liquid supplements). The advantage of eating regular meals is that it teaches the patient to eat normally.

D. **What diet recommendations have been given for children on the autism spectrum? What evidence is there to support these recommendations?** Some children are sensitive to the way foods feel in their mouth. They may avoid crunchy foods or foods that have a slick mouthfeel. The way food smells can cause similar reactions, and there are instances in which children may not recognize certain tastes but can distinguish between others. Patients with ASD may refuse to eat unless they sit in the same place at the table, eat on the same dishes, use the same tablecloth, and eat the same foods daily as a result dietary pattern must be consistent. The slightest change in routine can cause a tantrum or result in the refusal to eat. Supplementation is used in ASD treatment which involves supplementation with multivitamins, omega-3 fatty acids, vitamins D and B6, magnesium, and other nutrients. Start one supplement at a time for several weeks to determine whether there’s an improvement in symptoms.

A study by Benetto and colleagues showed that children with ASD were less able to accurately identify sour or bitter tastes but could recognize salty and sweet tastes. This study may shed light on why patients with ASD avoid several types of foods, such as proteins, but will usually accept foods in the carbohydrate group.

**Sources**

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