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Clinical Rotation
ADIME
Behavioral Health Chart

CASE STUDY #4
ANOREXIA NERVOSA-BULIMIA NERVOSA

INTRODUCTION

The occurrence of anorexia nervosa is increasing in our society. In the past, the actual incidence of this disorder was not widely known since it has been a disease kept in a "closet." Because of this, the number of cases of anorexia nervosa may be higher than previously realized. The consequences of this eating disorder can be devastating. It is important for health care professionals to understand what anorexia nervosa is, how to recognize it, and what can be done for someone who is suffers from this disorder.

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SKILLS NEEDED

ABBREVIATIONS:
Knowledge of the following abbreviations is required in order to understand this case. You should learn these abbreviations before you begin to read the study: BMI, BMR, IBW, and YOWF (Appendix C).

FORMULAS:
The formulas used in this case study include ideal body weight, percent ideal body weight (Appendix A, Tables 7 - 10), and basal metabolic rate using the Harris-Benedict equation (Appendix A, Table 17).

MEDICATIONS:
Become familiar with the following medications before reading the case study. Note the diet-drug interactions, dosages, methods of administration, gastrointestinal tract reactions, etc.
1. Emetics; 2. Diuretics; 3. Laxatives.

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SP is a 19 YOWF in her second year of college. She is the only child of an upper-middle-class family. She lives at home with her parents, both of whom have flourishing careers and expect her to be highly successful. With all the good intentions in the world, her parents decided to help her reach success by placing tight restraints on her and pressuring her to be the best in everything she attempts. SP has very few opportunities to make decisions for herself. She does not see this as a sign of her parents' love but, rather, views it as the placement of unreasonable restrictions designed to hinder her social life. SP feels she has to perform to receive love and encouragement, instead of receiving love and encouragement to help her perform. Her parents want her to be a successful doctor but SP wants to be a special education teacher.

SP's parents expect her to be active in as many prestigious campus organizations as she can and still maintain an "A" average. Because of this emphasis on excellence, SP has set very high goals for herself, but her grades in school have been poor because she does not like what she is studying. She cannot put her heart into her studies. In the past, when she failed to reach a goal, she would blame herself and become very depressed. Now she is blaming her parents. At least this is the theory her psychologist has proposed to explain her refusal to eat. He believes she is rebelling against her parents' dominance.

During her freshman year, SP took a health course and learned about anorexia nervosa. After taking the course, SP started talking about how she needed to lose a few pounds and went on a diet. She was 5'2" with a medium frame and weighed 120 lbs. She wanted to go on a diet "the right way," so she obtained a book from a newsstand on basic nutrition and calorie content and began counting calories. She learned that fat provides more calories than carbohydrate or protein, so she tried to eliminate fat from her diet entirely. SP discovered that sugar provides "empty calories," so she tried to eliminate sugar. Some friends of hers were on low-carbohydrate diets and convinced her that carbohydrate causes you to gain weight, so she tried to avoid carbohydrates also. Her nutrition and calorie counter book said that white flour was

harmful, so she eliminated white flour. She also read that a diet high in meat, particularly red meat, was also high in fat and could cause cancer, so she eliminated red meat. That did not leave much for SP to eat.

Her nutrition and calorie counter book also emphasized the importance of exercise for weight loss and a healthy body. She started an exercise program that was very vigorous. She attended aerobics classes three times a week, rode her bicycle almost everywhere she went, and played tennis on a regular basis. In addition, she was very active at school.

SP did not think she was losing weight fast enough so she reduced her calories even more. She avoided eating with her parents as much as possible to keep them from seeing her starve herself. If she did eat with them, she would eat a normal amount and then go force herself to throw-up. When she was down to 105 lbs, her mother noticed a difference and asked her about the weight loss. SP told her she was on a diet. Her mother told her to stop dieting immediately; she had lost enough weight. In rebellion against her parents, this encouraged SP to stay on the diet longer. When she reached 100 lbs, she was on a plateau and could not lose additional weight. Her friends were continually telling her how thin she looked. This reinforced her desire to lose weight and gave her a feeling of accomplishment. Her mother nagged her constantly. The more people talked to her about her diet, the more determined she was to lose more weight. She was convinced that she needed to lose a few more pounds. SP continued to decrease her intake and increased her exercise. She began to become tired very easily, could not concentrate, and amenorrhea and headaches were a problem. Her grades were getting worse and SP started spending most of her time alone.

One day SP collapsed at school after standing up rapidly. She had to be brought home. Her mother was furious. She took her to a physician who examined SP and said she had orthostatic hypotension and bradycardia. A clinical examination revealed lanugo, and SP admitted having amenorrhea. Her weight was 90 lbs. The doctor easily made a diagnosis of anorexia nervosa. SP denied it and her mother agreed with her at first, refusing to believe her daughter was starving herself. The physician recommended a psychologist and a registered dietitian. Both SP and her mother refused to see them. SP insisted that nothing was wrong with her. Her mother insisted that she was going to handle her daughter her way.

The situation continued until SP became so weak she had to drop out of school. At this point her father demanded she return to the doctor and follow his recommendations. SP started receiving counseling from the psychologist and registered dietitian. She weighed 85 lbs.

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QUESTIONS:

1. Determine SP's IBW and percent IBW (Appendix A, Tables 7 and 8). Show all work.

2. After her first visit to the physician, SP weighed 90 lbs. Her weight before her diet was 120 lbs. What was her percent loss of weight (Appendix A, Table 8)?

CS#4 Anorexia Nervosa-Bulimia Nervosa

14. SP's problem is a very complex one and requires counseling from several different members of the health care team. As a member of that team, you must be careful to reinforce, and not contradict, the information SP is receiving from the other team members. Discuss what you think your boundaries are and how the team effort should be coordinated.

15. List the symptoms of anorexia nervosa SP demonstrated. List all additional possible symptoms that SP could have demonstrated.

16. When SP's friends and family told her how thin she looked, it encouraged her. This is typical for many anorexics. What approach should be used to discourage rather than encourage a person with anorexia?

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When SP went to see the RD, her mother insisted on going with her. The first interview included the following:

RD: SP, when did you first start on your diet?

SP: Well . . .

Mom: She started a long time ago. Those kids she hangs around with, they talked her into it.

RD: Yes ma'am. When you first started on your diet, how did you see yourself?

SP: I . . .

Mom She has a very healthy perception of herself; always did. She just wanted to lose a few pounds and then got sick and lost a lot, that's all.

RD: Yes ma'am. SP, I want you to tell me everything you have to eat or drink in a typical day from the time you get up in the morning to the time you go to bed at night, everything.

Mom: Now tell the lady what you eat honey, don't leave out anything. She is just trying to help . . . .

This interview is not intended for comic relief. Such behavior is not uncommon and has to be dealt with. During the interview, the RD obtained some valuable information though much of the time was wasted. The obvious conclusion was the dominance of SP's mother.

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QUESTIONS CONTINUED:

17. How would you handle SP's mother in the above situation?

18. If blood was drawn and analyzed, what results would you expect to find? Explain your expectations.

Refeeding someone after a period of starvation should be done with caution. A starved person should not start eating large meals. Generally, the longer the starvation period, the slower the refeeding. Each case is different and should be evaluated on its own circumstances. SP has been dieting for about a year, the last several months being a starvation diet. She lost from 120 to 85 lbs. The psychologist, RD, and physician worked as a team with SP's father and convinced him that SP needed to have more of a voice in her life. In turn, he convinced his wife. They agreed to allow SP more freedom. They gave her their blessing to change her major to special education. This greatly changed the home atmosphere and gave the psychologist and RD a chance to work with SP. By now she had created a tremendous fear of being fat and did not want to gain her weight back. They were able to show her that her dieting hurt her social life more than it hurt her parents. They also helped her to dream of being the teacher and role model she wanted to be for children. She slowly started to eat more but gained several pounds very fast. She was afraid she would continue to gain weight at that rate and would get fat. The RD explained the occurrence of rapid weight gain to her and calmed her fears. SP continued to gain weight. As she did, she began to feel stronger. Still fearing to gain too much, she restarted her vigorous exercise routine. She remembered how much she enjoyed eating and began to overeat, using the excessive exercise as an excuse. She enjoyed what she was doing but felt guilty for overeating. She gained 30 lbs back and was now 115 lbs. SP was released from the care of her physician and counselors.

She started to binge and purge often. She was in a real dilemma. She wanted to eat but did not want to gain weight. She was willing to purge to keep her weight down but she found that gross. She did not like sticking her finger down her throat. One day a friend introduced her to ipecac syrup, an over-the-counter drug that would make her throw-up. SP began using this drug with laxatives and diuretics to keep her weight down while overeating.

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QUESTIONS CONTINUED:

19. Assume that SP will submit to ending her starvation diet. Calculate SP's BMR using the Harris-Benedict equation. What activity factor would you initially use? On a separate sheet of paper, outline a refeeding plan for SP and include in your plan: the number of kcals you would start with per day, the rate at which you would advance, and your final kcals per day.

20. If you feed too much too fast, what problems would you expect SP to have?

SP thought she could binge and lose the food she ate with the over-the-counter drugs and no one would know. Her binging increased. Some days she would throw up once, twice, or ten times. A typical binge could include a large bag of chocolate chip cookies, a liter of soda, two peanut butter sandwiches, a large bag of potato chips, almost a half-gallon of ice cream, and several candy bars. She might throw up four or five times during this binge. Sometimes she would spend $30.00 to $40.00 a day for binge food. SP went to her dentist for a check up. Upon examining her, he noted perimolysis. When he asked her if she had been vomiting a lot, she denied it.

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QUESTIONS CONTINUED:

27. Describe the nutritional approach you would use to counsel SP now that she is bulimic. Would your nutritional goals change? Explain.

28. What is perimolysis? Explain its relationship with bulimia.

29. Using any of the given information, compose a SOAP note about SP.

S:
O:
A:
P:

Behavioral Health Chart Notes

Assessment

Patient is a 19 y/o female diagnosed with anorexia nervosa.

Anthropometric Data
Ht: 5'2"
Wt: 120 lbs (before diet), 90 lbs (at time of diagnosis), 85 lbs (when she saw RD), 115 lbs (after anorexia treatment)

BMI (before diet): 703 x 120 lbs / 62^2 = 21.9 (normal)
BMI (at the time of diagnosis): 703 x 90 lbs / 62^2 = 16.5 (underweight)
BMI (by the time she saw RD): 703 x 85 lbs / 62^2 = 15.5 (underweight)
BMI (after anorexia treatment): 703 x 115 lbs / 62^2 = 21.0 (normal)

IBW: 110 lbs ± 10%
% IBW (before diet): 109%
% IBW (by the time she saw RD): 77.2%

Medical History:
None before anorexia diagnosis

Medications:
Ipecac syrup, laxatives, and diuretics.

Diet History:
Pt counted calories, eliminated fat and sugar. Went on a low-carbohydrate diet (no white flour). No red meat. After anorexia treatment, patient started bingeing and purging.

Diagnosis

Disordered eating pattern related to familial and societal obsessive desire to be thin as evidenced by diagnosis of amenorrhea, bingeing and purging behavior, past diagnosis of anorexia nervosa, and BMI of 15.5.

Intervention

1. Referral to physician and psychologist regarding relapse.
2. Conduct a nutrition-focused physical assessment.
3. Calculate energy needs for weight maintenance.
4. Encourage patient to consume meals and snack consistently.
5. Education regarding hunger and satiety cues.

Monitoring & Evaluation

1. Continued follow-ups for weight and food intake monitoring.
2. Continued eating disorder nutrition education.
3. Continued coordination with physician and psychologist.

Questions:

1. Intern's comments about nutritional intervention(s) for this patient. How receptive was / were the patient and family to nutrition intervention? What were the factors that influenced this the most? Patient/family factors? Institutional/environmental factors?

N/A

2. Was the nutrition intervention successful? Why/Why not?

N/A

Glossary of unfamiliar terms:

Orthostatic hypotension – form of low blood pressure that happens when an individual stands up or lays down.

Bradycardia – slower than normal heart rate

Ipecac Syrup – typically used for certain types of poisoning. Ipecac syrup causes a person to vomit.

Applies to:

CRDN 1.6 Incorporate critical-thinking skills in overall practice.
CRDN 2.1 Practice in compliance with current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Nutrition and Dietetics Practice and Code of Ethics for the Profession of Nutrition and Dietetics.
CRDN 2.2 Demonstrate professional writing skills in preparing professional communications.
CRDN 2.11 Show cultural competence/ sensitivity in interactions with clients, colleagues and staff. **CRDN 3.1** Perform the Nutrition Care Process and use standardized nutrition language for individuals, groups and populations of differing ages and health status, in a variety of settings.
CRDN 3.3 Demonstrate effective communications skills for clinical and customer services in a variety of formats and settings.
CRDN 4.10 Analyze risk in nutrition and dietetics practice.