• Advise using a soft-bristled toothbrush, electric razor, and gentle touch when cleaning fragile skin. These measures decrease the risk of skin or gum trauma and bleeding.

**Nursing Care Plan**

**A Client with Mitral Valve Prolapse**

Julie Snow, a 22-year-old college student, sees a nurse practitioner at the college health clinic for a physical examination after experiencing palpitations, fatigue, and a headache during midterm examinations. Ms. Snow tells Lakisha Johnson, FNP, “I’m scared that something is wrong with me.”

Over the last few months, Ms. Snow has had occasional palpitations that she describes as “feeling like my heart is doing flips-flops.” Rarely, these palpitations have been accompanied by a sharp, stabbing pain in her chest that lasts only a few seconds. She initially attributed her symptoms to stress, but she is increasingly concerned because the “attacks” are becoming more frequent. Ms. Snow states that she has “always been healthy,” does not smoke, uses alcohol socially, and exercises, albeit intermittently. Ms. Snow admits that she has been drinking a lot of coffee and cola and eating a lot of “junk food” lately.

**ASSESSMENT**

Ms. Johnson’s assessment of Ms. Snow documents the following:
- Height 66 in. (168 cm), weight 140 lb (63.6 kg), T 99.3, BP 118/64, P 82, and R 18. Slightly anxious but in no acute distress. Systolic click and soft crescendo murmur grade II/VI noted on auscultation. Apical impulse at fifth ICS left MCL. Lungs clear to auscultation. Review of remaining systems reveals no apparent abnormalities. An ECG shows sinus rhythm with occasional PACs. Based on the admission history, manifestations, and physical assessment, Ms. Johnson suspects mitral valve prolapse (MVP).

**DIAGNOSES**

Ms. Johnson makes the following nursing diagnoses.
- **Anxiety** related to fear of heart disease and implications for lifestyle
- **Powerlessness** related to unpredictability of symptoms
- **Risk of infection (endocarditis)** related to altered valve function

**EXPECTED OUTCOMES**

The expected outcomes specify that Ms. Snow will:
- Verbalize an understanding of MVP and its management.
- Discuss ways to decrease or relieve MVP symptoms.
- Acknowledge the risk for endocarditis and identify precautions to prevent it.

**PLANNING AND IMPLEMENTATION**

Ms. Johnson plans and implements the following nursing interventions.
- Consult with and refer to cardiologist for continued monitoring and follow-up.
- Teach about MVP, including heart valve anatomy, physiology, and function, common manifestations of MVP, and treatment rationale.
- Discuss symptoms of progressive mitral regurgitation, and the need to report these to the cardiologist.
- Discuss lifestyle changes to manage symptoms: aerobic exercise with warmup and cooldown periods; maintaining adequate fluid intake, especially during hot weather or exercise; relaxation techniques (e.g., meditation, deep-breathing exercises, music therapy, yoga, guided imagery, heat therapy, or progressive muscle relaxation) to perform daily; avoiding caffeine and crash diets; forming healthy eating habits.
- Teach about infective endocarditis risk and prevention with prophylactic antibiotics. Encourage notifying dentist and other health care providers of MVP before dental or any invasive procedure.

**EVALUATION**

After several educational sessions at the college health clinic, Ms. Snow verbalizes an understanding of MVP by explaining heart valve function, listing common manifestations of MVP, and describing indications of deteriorating heart function. She states she will report these manifestations to her cardiologist if they occur. She is given a booklet on MVP for additional reading. She also verbalizes understanding of the risk of endocarditis, and states that she will notify her doctors of her MVP and the need for antibiotics before invasive procedures. Ms. Snow is attending a monthly MVP support group (led by a cardiology clinical nurse specialist) on campus and states, “I am so glad to know I’m not alone! It really helps to know that others are living well with MVP.” Her weekly symptom log shows her symptoms are associated with late-night studying and drinking large amounts of coffee and cola. Ms. Snow has moderated her caffeine intake and increased her fluids, relieving her symptoms. In addition, Ms. Snow is taking a relaxation music therapy class. Ms. Snow states that she realizes that she has “the ability to control my life through the choices I make.”

**Critical Thinking in the Nursing Process**

1. Develop an action plan for Ms. Snow that outlines specific activities she can use to manage symptoms of MVP.
2. Why are clients with symptomatic MVP encouraged to include regular exercise in their health habits?
3. How does the support of family, friends, and other people with MVP assist MVP clients in managing their condition?
4. What manifestations would indicate a progressive worsening of Ms. Snow’s mitral regurgitation?

See Critical Thinking in the Nursing Process in Appendix C.