

- a. Provides dynamic pelvic capacity, which facilitates fetal passage
- b. Avoids excessive stress and tension on a single muscle group

### C. Emotional preparation for birth

1. Encourage attendance at childbirth preparation classes.
2. Support self-study efforts, such as books and videos.
3. Encourage rehearsal of coping behaviors and relaxation techniques.
4. Encourage guidance and support of family members.

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## CASE STUDIES AND STUDY QUESTIONS

### Primigravida in Early Labor

Mrs. W. is a 37-year-old, gravida 1 (G1) woman who began experiencing irregular contractions late Tuesday afternoon. Throughout Tuesday evening, she and her husband diligently timed each contraction. They were very excited that labor had begun. They were equally excited that the baby's arrival had waited until the end of the academic year. She had recently been promoted to associate professor and took great pride in personally reviewing all of her students' papers before issuing final grades.

Near midnight, the contractions were 3 to 4 minutes apart, lasting 45 to 50 seconds. Her discomfort was increasing, although she remained able to focus on the relaxation breathing techniques she had learned. Her husband was becoming tired, but he remained excited and eager to time each new contraction. When her membranes ruptured at 12:30 AM, she phoned her physician, confident that her baby would be born soon.

Mr. and Mrs. W. arrived in labor and delivery at 1:10 AM Wednesday. On arrival she provided the nurse with a detailed summary of the previous 8 hours. She also shared with the nurse her goals for the birth experience, which included being permitted to breastfeed immediately after birth and going home as soon as possible. She was obviously uncomfortable with contractions, but she used her breathing techniques well.

The nurse escorted the couple to a labor-delivery-recovery (LDR) room, oriented them to the hospital environment, and assisted Mrs. W. in changing into a hospital gown. Her initial assessment findings included:

- Maternal vital signs within normal limits (WNL)
- Fetal heart rate of 136 bpm
- Contractions every 4 to 5 minutes, lasting 45 to 50 seconds, and of moderate intensity
- Cervix 100% effaced and 3 to 4 cm dilated
- Baby at 0 station, in the right-occipitoanterior (ROA) position

When the nurse informed Mr. and Mrs. W. of her findings, Mrs. W. was obviously distressed and disappointed. "How can I be only 3 cm? I've been

in labor for hours. I should be almost finished by now." As she spoke, she became increasingly agitated, and each new contraction heightened her frustration. She became restless and had difficulty implementing her breathing techniques.

1. What factor is most responsible for Mrs. W.'s reaction to the nurses' information?
  - a. Maternal age
  - b. The frequency and duration of her contractions
  - c. Unrealistic expectations
  - d. Her unfamiliarity with the hospital environment
2. How should the nurse respond to her?
  - a. Remind her that first babies usually take 18 to 24 hours.
  - b. Assist her in resuming the relaxation techniques she had been using on admission.
  - c. Inform her that the physician will be contacted to obtain something to help her relax.
  - d. Obtain additional information about her birth plan.
3. How can the nurse assist her to cope adaptively with her labor and birth?
  - a. Provide her with information and encouragement.
  - b. Leave her and her husband alone as much as possible.
  - c. Share with Mrs. W. her own birth experience.
  - d. Teach her how to time her contractions.
4. What immediate intervention does Mr. W. require?
  - a. Provision of scrub attire
  - b. Information about the early discharge procedure
  - c. Instruction about how to time contractions
  - d. Information about how best to support his wife

### Primigravida, Multiple Gestation

Mr. and Mrs. C., a couple in their mid-20s, were thrilled when they first learned that Mrs. C. was pregnant. They had been married for more than

a year, and Mrs. C. had quit her job at the local bookstore shortly after their marriage in anticipation of raising a family. Both individuals came from large families, and they hoped to continue the tradition. Despite their desire for children and plans for a large family, they were shocked when the physician informed them that they were expecting twins.

As the shock faded, Mrs. C. began to revel in the specialness of her pregnancy and enjoyed the extra attention that her friends and family paid her. She was unprepared, however, for the increased discomfort she experienced. Her physician reassured her that both fetuses were healthy and that everything was normal. Nonetheless, with each new sensation, she worried that something was wrong.

At 37 weeks' gestation, she began having contractions. She telephoned her physician immediately and went to the hospital.

On admission to labor and delivery, she was quiet and reserved. She told the nurse that her contractions had begun 2 hours earlier. Her husband drove a delivery truck, and the company was trying to contact him to meet her at the hospital. She had tried to telephone her mother but was unable to reach her at home. The nurse also learned that Mr. and Mrs. C. had not attended childbirth-preparation classes. According to Mrs. C., "My husband's schedule is very unpredictable, and I couldn't go alone. Besides, most of the time I didn't have the energy to do much of anything."

The nurse's assessment revealed:

- Blood pressure 144/86, pulse 88, respirations 20
  - Fetal heart rate 124 bpm in right lower quadrant (RLQ) and 136 bpm in right upper quadrant (RUQ)
  - Contractions every 10 minutes, lasting 20 seconds, and of mild intensity
  - Cervix 0% effaced and 4 cm dilated
  - Fetus A presented vertex, at 0 station; fetus B also was vertex
5. What factors should the nurse consider as contributing to Mrs. C.'s anxiety level?
    - a. Her lack of attendance at childbirth preparation classes
    - b. Multiple gestation
    - c. Maternal age
    - d. Inadequate support system
    - (1) a, c
    - (2) a, b, d
    - (3) a, c, d
    - (4) All of the above
  6. What should the nurse do first to minimize Mrs. C.'s anxiety?
    - a. Notify the physician, and obtain an order for medication.

- b. Instruct her in childbirth-preparation information.
  - c. Permit her to listen to the fetal hearts, and reassure her that the fetuses are doing well.
  - d. Remain with her.
7. What is the significance of fetus A's station?
  - a. Suggestive of pelvic adequacy
  - b. Indicative of malpresentation
  - c. Suggestive of a short labor
  - d. Indicative of the need to prepare for a cesarean delivery
8. What actions can the nurse take to increase the likelihood of a vaginal delivery?
  - a. Encourage Mrs. C. to walk around during the early stage of labor.
  - b. When Mrs. C. is in bed, keep the head of the bed slightly elevated.
  - c. Assist Mrs. C. in assuming upright positions.
  - d. Assist Mrs. C. with relaxation breathing techniques.
    - (1) a, c
    - (2) b, c, d
    - (3) b, d
    - (4) All of the above
9. At the outset of her labor, what information would best assist Mrs. C. in coping adaptively?
  - a. An explanation of the procedures she should expect
  - b. A discussion of the anatomy and physiology of labor
  - c. A description of the institution's policies about support persons' attendance at cesarean birth
  - d. Instruction in relaxation techniques
    - (1) a, c
    - (2) a, b, d
    - (3) a, c, d
    - (4) All of the above

### Multigravida, Active Labor

Mrs. A. is a 34-year-old, 41-week-gestation, gravida 3, para 2 (G3, P2) woman who arrived in labor and delivery on Friday at 10:20 AM. She states that when she awoke she noticed some pelvic heaviness, but that she ignored it as she got her 9-year-old and 6-year-old children off to school. Once the house was quiet, she became aware that she was contracting regularly, though she describes the contractions as mild and cramplike. Because her previous labors were quick (first pregnancy, 11 hours; second pregnancy, 4 hours), she went right to the hospital without notifying her physician or husband: "The last time, it was over almost before it had begun." Throughout the admission process, she remained calm. When the nurse was finished, she remarked, "Well, I guess I

should call my husband if I expect him to get here in time." Admission assessment includes:

- Maternal vital signs within normal limits
  - Fetal heart rate 148 bpm RLQ
  - Contractions every 5 to 6 minutes, 30 to 45 seconds, and of mild to moderate intensity
  - Cervix 70% effaced and 2 cm dilated
  - Fetal position in right occipitoposterior (ROP), at a -1 station
10. What additional findings would reassure the nurse that Mrs. A. was in true labor?
    - a. The presence of a bloody show
    - b. Bulging membranes
    - c. A progressive increase in the length of time between contractions
    - d. A progressive increase in the duration of contractions
      - (1) a, c
      - (2) a, c, d
      - (3) a, b, d
      - (4) All of the above
  11. What is the significance of the baby's station and position?
    - a. Of little significance at this time
    - b. Suggestive of cephalopelvic disproportion
    - c. Suggestive of a prolonged labor
    - d. Indicative of the need to prepare for cesarean delivery
  12. What additional assessments would be helpful to the nurse in planning care for the patient?
    - a. The gestational age and birth weight of Mrs. A.'s previous deliveries
    - b. The time and amount of Mrs. A.'s last oral intake
    - c. Mrs. A.'s preparation for this birth experience
    - d. Mrs. A.'s expectations about pain management
      - (1) a, c
      - (2) a, b, d
      - (3) a, c, d
      - (4) All of the above
  13. Which cardinal movement is most affected when a baby is occipitoposterior?
    - a. Flexion
    - b. Internal rotation
    - c. Extension
    - d. External rotation
  14. Which factors may contribute to the baby's presenting occipitoposterior?
    - a. Maternal pelvic shape
    - b. Maternal age
    - c. Fetal size
    - d. Postmaturity
      - (1) a, c
      - (2) b, c, d
      - (3) b, d
      - (4) All of the above

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## ADDITIONAL STUDY QUESTIONS

15. What is characteristic of the powers of the first stage of labor?
  - a. Controlled by the involuntary nervous system
  - b. Responsible for cervical effacement and dilation
  - c. Responsive to nursing interventions
  - d. Quantified by calculating frequency times intensity
    - (1) a, c
    - (2) a, b, d
    - (3) a, c, d
    - (4) All of the above
16. True or false: Women should be encouraged to go through labor in an upright position because this is the most facilitative posture for childbirth.
17. What describes the birth of a macrosomic baby?
  - a. The infant is at increased risk of birth trauma.
  - b. Prolonged labor is likely.
  - c. The mother is at increased risk of birth trauma.
  - d. Postpartum hemorrhage is likely.
    - (1) a, c
    - (2) a, b, d
    - (3) a, c, d
    - (4) All of the above
18. What is characteristic of the anxiety and fear experienced during labor?
  - a. Results in an elevated blood pressure and pulse rate
  - b. Results in an improved ability to concentrate
  - c. Results in increased pain perception
  - d. May prolong labor
    - (1) a, c
    - (2) a, b, d
    - (3) a, c, d
    - (4) All of the above
19. What nursing intervention is indicated to reduce sensory overload?
  - a. Keep the room's lighting subdued.
  - b. Speak quietly and calmly to the patient and her support person.
  - c. Provide music in the room.

- d. Avoid doing a procedure during a contraction.
- (1) a, c  
(2) a, b, d
- (3) a, c, d  
(4) All of the above

## ANSWERS TO STUDY QUESTIONS

- |      |       |       |          |
|------|-------|-------|----------|
| 1. c | 6. d  | 11. c | 16. True |
| 2. b | 7. a  | 12. 3 | 17. 4    |
| 3. a | 8. 4  | 13. b | 18. 3    |
| 4. d | 9. 2  | 14. 1 | 19. 2    |
| 5. 2 | 10. 3 | 15. 4 |          |

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