Bright Futures in Practice: Nutrition—Infancy Case Study

Julie Parker is a 4-month old baby who has been exclusively breastfed. Julie weighs 15 pounds and is 25 inches in length. During Julie's well-child visit, Mrs. Parker tells the nurse that she may stop breastfeeding her baby when she returns to work full-time in about 2 weeks.

Mrs. Parker has questions about whether she should start feeding Julie infant formula and solid foods. Since this is her first baby, Mrs. Parker has asked many mothers (including her own mother) for advice on feeding. They are encouraging her to start infant formula, cereal, and fruit right away. Mrs. Parker worries that Julie may have adverse reactions to trying so many new foods. And, she is concerned about Julie choking on food.

1. What initial information have you gathered?

2. What are the mother's nutrition concerns?

3. What interview questions would you ask to gather more information?

4. What screening and assessment would you conduct?

5. Identify three areas of counseling that you would provide to the family and other caregivers.

6. Identify three nutrition resources that might be helpful for the family.

1. What initial information have you gathered?

   4-month old girl

   Weight 15 pounds, length 25 inches

   Baby exclusively breastfed, no supplemental infant formula or solid foods

   Mother is returning to work full-time in 2 weeks

2. What are the mother's nutrition concerns?

   Whether to feed her baby breastmilk or infant formula

   When to introduce solid foods, what foods to introduce first

   How to prevent adverse reactions to food allergies

   How to prevent choking on foods

3. What interview questions would you ask to gather more information?

   Have you considered expressing your breastmilk? Would you have a place to store the milk?

   When you return to work, could you breastfeed your baby in the morning and evening and have others fed your baby expressed breastmilk during the day?

   When you return to work, could you breastfeed your baby in the morning and evening and have others fed your baby infant formula during the day?

   What type of infant formula do you plan to feed your baby? Is it iron-fortified?

   Do you have any concerns about the infant formula (e.g., cost, preparation)?

   Do you have any questions or concerns about feeding your baby?

   Were there any days last month when your family didn't have enough food to eat or enough money to buy food?

   See Interview Questions—Throughout Infancy (pages 30–31), 4 Months (pages 44–45)

   See Appendix A: Nutrition Questionnaire for Infants and Interpretation (page 229–231)

4. What screening and assessment would you conduct?

   Measure and plot height-for-age on CDC growth chart: 75th percentile

   Measure and plot length-for-age on CDC growth chart: 75th percentile

   Plot weight-for-length on CDC growth chart: 50th percentile

   Assess developmental readiness for supplemental foods. Infants are ready to eat supplemental foods by about 4 to 6 months, when their sucking reflex has changed to allow coordinated swallowing, they can sit with support, and they have good head and neck control.

   Assess the need for vitamin D or iron supplement

   See Screening and Assessment—Throughout Infancy (page 31), 4 Months (page 45)

   See Iron-Deficiency Anemia chapter (pages 171–177)

   See CDC Growth Charts (Bright Futures in Practice: Nutrition—User's Guide)

5. Identify three areas of counseling that you would provide to the family and other caregivers.

   For example, health professionals can help families decide when to introduce supplemental foods into the infant's diet by providing information on the infant's nutrition needs and developmental abilities.

   Breastfeeding an infant exclusively for about the first 6 months provides ideal nutrition and supports the best possible growth and development.

   Iron-fortified infant formula is an appropriate substitute for breastmilk for feeding infants.

   Breastmilk or iron-fortified infant formula is recommended and low-iron milk should not be used, even in infant cereal, until the infant is 12 months.

   Infants develop feeding skills at their own rate. The infant must be developmentally ready before being introduced to new foods and textures. At this time, infants may be ready for try an iron-fortified, single-grain infant cereal (e.g., rice cereal). Gradually offer fruits and vegetables after the infant has accepted iron-fortified, single-grain infant cereal.

   Offer new foods one at a time and observe their infants for 7 days or more after a new food is introduced to make sure they do not have an adverse reaction (e.g., rash).

   Choking can be a problem for infants because they may not have enough muscle control to chew and swallow foods properly. Infants can choke on foods that are small or slippery (e.g., hard candy, whole grapes, hot dogs) and foods that are dry and difficult to chew (e.g., popcorn, raw carrots, nuts). Foods that are sticky or tough to break apart (e.g., peanut butter, large chunks of meat) can get lodged in the throat.

   See Nutrition Counseling—For Parents of All Infants (page 31–33), For Mothers of Breastfed Infants (page 33–35), For Parents of Formula-Fed Infants (page 35), 4 Months (pages 45)

   See Vignette: Successfully Introducing Solid Foods (page 52)

   See Frequently Asked Questions About Nutrition In Infancy (pages 53–56)

   See Breastfeeding chapter (pages 135–141)

   See Food Allergy chapter (pages 178–183)

6. Identify three nutrition resources that might be helpful for the family.

   See Appendix J: Nutrition Resources (pages 258–265)

   See Appendix: K: Federal Food Assistance and Nutrition Programs—provide referrals to Early Head Start, WIC, Commodity Supplemental Food Program

Bright Futures in Practice: Nutrition—Early Childhood Case Study

David Montes is a 2-year old, energetic boy who sleeps well and loves to run and gallop. Sally Richardson, a home child care provider takes cares of David during the weekday. Since starting childcare 3 months ago, David's appetite has decreased and he is reluctant to try new foods. At home, David refuses to sit in his high chair and mealtimes are now chaotic.

At David's WIC recertification visit, he weighs 30 pounds and is 36 inches in length. His parents asked the nutritionist how they can get David to eat the foods he needs to grow and to make mealtime more enjoyable.

1. What initial information have you gathered?

2. What are the family's nutrition concerns?

3. What interview questions would you ask to gather more information?

4. What screening and assessment would you conduct?

5. Identify three areas of counseling that you would provide to the family and other caregivers.

6. Identify three nutrition resources that might be helpful for the family.

1. What initial information have you gathered?
   2-year old boy
   Weight 30 pounds, length 36 inches
   Energetic
   Acquiring fundamental motor skills—running and galloping
   Enrolled in home childcare during the week
   In the past three months, his appetite has decreased and is reluctant to try new foods
   At home, refuses to sit in his highchair and mealtimes are chaotic
   Possible food jag

2. What are the family's nutrition concerns?
   How to get David to eat foods he needs to grow
   How to make mealtime more enjoyable

3. What interview questions would you ask to gather more information?
   Do you have any concerns about your child's eating behavior or growth?
   How would you describe your child's appetite? Good, Fair, Poor
   Do you (and your childcare provider) have appropriate equipment for feedings young children (e.g., eating utensils, infant seat, booster seat)?
   Do you enjoy sharing meals and snacks with your child?
   Do you have any concerns about the food served to him when he is away from home?
   Are you concerned about having enough money to buy food?
   See Interview Questions—Throughout Early Childhood (page 63), 2 Years (page 72)
   See Appendix B: Nutrition Questionnaire for Children and Interpretation (pages 232–236)

4. What screening and assessment would you conduct?

   Measure and plot weight-for-age on CDC growth chart: 75th percentile

   Measure and plot length-for age on CDC growth chart: between 50th and 75th percentiles

   Plot weight-for-length on CDC growth chart: between 50th and 75th percentiles

   Evaluate the child's progress in developing eating skills (including chewing and swallowing)

   Screen the child for iron-deficiency anemia if risk factors are present (e.g., diet low in iron-rich foods, limited access to food because of poverty or neglect)

   Screen the child for lead exposure

   See Screening and Assessment—Throughout Early Childhood (pages 63–64), 2 Years (pages 72–73)

   See Iron-Deficiency Anemia chapter (pages 171–177)

   See Appendix E: Screening for Elevated Blood Lead Levels (pages 249–250)

   See CDC Growth Charts (Bright Futures in Practice: Nutrition—User's Guide)

5. Identify three areas of counseling that you would provide to the family and other caregivers.

   Emphasize to parents that children need healthy meals and snacks at scheduled times throughout the day to help them achieve nutritional balance.

   Emphasize that children eat better when an adult is nearby, particularly when the adult shares the meal or snack with them.

   Encourage parents to give the child opportunities to develop his eating skills by offering a variety of foods.

   Tell parents that children are unpredictable in the amounts and types of foods they eat, from meal to meal and from day to day. Reassure parents that children usually eat enough food to meet their nutrition needs.

   Reassure parents that food jags in children are common. Smaller servings of the favored food can be offered, along with other foods to ensure that the child eats a variety of foods.

   Tell parents that they can encourage the child to eat new foods by offering small portions.

   See Nutrition Counseling—Throughout Early Childhood (pages 64–68), 2 Years (pages 73)

   See Vignette: Reducing Distractions During Mealtime (page 77)

   See Frequently Asked Questions About Nutrition in Early Childhood (pages 78–83)

6. Identify three nutrition resources that might be helpful for the family.

   See Appendix J: Nutrition Resources (pages 258–265)

   See Appendix: K: Federal Food Assistance and Nutrition Programs—provide referrals to Early Head Start, WIC, Commodity Supplemental Food Program

Bright Futures in Practice: Nutrition—Middle Childhood Case Study

Ella Springer is a school nurse at Riverview Elementary School. Over the past two years, she believes that an increasing number of children appear to be overweight. She wonders if this is a trend or whether she is sensitive to this issue because of increased coverage of obesity in the media.

Ms. Springer decides to review the health records of 100 5th grade students. Based on their age, weight, and stature, she calculates body mass index (BMI) for these 10-year old children. She finds that 32 students have BMI values between the 85th and 95th percentiles and are "at risk for becoming overweight." She also meets with the school's principal to assess the services (school breakfast and lunch program, vending machines, recess, afterschool care) provided by the school that might prevent and contribute to the problem.

1. What initial information have you gathered?

2. For children who were identified as "at risk for becoming overweight," what additional screening and assessment would you conduct?

3. What recommendations would you provide to the family for weight maintenance or weight loss?

4. Identify three areas of counseling that you would provide to the family for changing eating and physical activity behaviors.

5. What partnerships could be initiated that would impact on children's nutritional and physical activity status?

6. Identify three nutrition resources that might be helpful for the family.

1. What initial information have you gathered?

   Reviewed health records of 100 5th grade students (10 years old)

   32 students have BMIs between the 85th and 95th percentiles and are "at risk for becoming overweight

2. For children who were identified as "at risk of becoming overweight," what additional screening and assessment would you conduct?

   Children with BMIs between the 85th and 95th percentiles should be screened and evaluated carefully, with particular attention to family history and secondary complications of obesity, including hypertension and dyslipidemias.

   Children with an annual increase of 3 to 4 BMI units should be evaluated.

   See Obesity chapter (pages 200–206)

3. What recommendations would you provide to the family for weight maintenance or weight loss?

   For children older than 7 years, prolonged weight maintenance is an appropriate goal if their BMI is between the 85th and 95th percentiles and if they have no secondary complications of obesity.

   For children older than 7 years, prolonged weight loss is an appropriate goal if their BMI is between the 85th and 95th percentiles and if they have secondary complications of obesity and for children in this age group with a BMI at the 95th percentile or above. The first step for these children is weight maintenance, then additional changes in eating and physical activity to achieve weight loss of ~ 1 pound per month.

   An appropriate weight goal for all children is a BMI below the 85th percentile, although secondary to healthy eating and physical activity.

   See Obesity chapter (pages 200–206)

4. Identify three areas of counseling that you would provide to the family for changing eating and physical activity behaviors.

   Establish daily times for family meals and snacks.

   Keep a variety of easy-to-prepare and healthy foods on hand.

   Put a bowl of fruit on the kitchen table or counter.

   Wash and cut up vegetables and keep then in a clear container (so they can be seen easily) in the refrigerator, along with low-fat dip or salsa.

   Reduce the amount of high-fat and high-sugar foods in your family's meals and snacks.

   Encourage regular physical activity, and make it fun.

   Plan family activities that everyone enjoys (for example, hiking, biking, or swimming)

   Limit the amount of time spent watching television and videotapes and playing computer games to 1 to 2 hours per day.

   Be a positive role model—practice healthy eating behaviors and participate in regular physical activity.

   Focus on gradually changing the entire family's eating behaviors and physical active practices instead of singling out the overweight child.

   See Frequently Asked Questions About Nutrition In Middle Childhood (pages 102–106)

   See Obesity chapter (pages 200–206)

   See Appendix F: Stages of Change—A Model for Nutrition Counseling

5. What partnerships could be initiated that would impact on children's nutritional and physical activity status?

6. Identify three nutrition resources that might be helpful for the family.

   See Appendix J: Nutrition Resources (pages 258–265)

Bright Futures in Practice: Nutrition—Adolescence Case Study

Mia Kolo is a busy 15-year old girl attending Anchorage High School. She loves singing, dancing, and acting in school plays. She also enjoys playing soccer in the fall and spring on the girls' soccer team. Mia get good grades in school, but she has to work hard and put in lots of time to keep up with her schoolwork and activities. She usually goes to the library to study during the lunch break instead of the cafeteria to eat lunch. Mia says she doesn't need to eat if she is not hungry. She prefers grabbing a snack in the school vending machines or at a convenience store on her way home after school like most of her friends do. Mrs. Kolo says Mia is so busy that she has no time to eat meals with the family.

Lately, Mia's friends have made comments to her about how much she has grown and "filled out." Mia is concerned that she is gaining too much weight. Mia weighs herself everyday and is 125 pounds. She is also 65 inches tall. When her weight goes above 125 pounds, Mia limits her food intake to bagels, low-fat yogurt, fruits, and vegetables (mainly salads) and does not eat meat products and desserts. Mrs. Kolo is not sure whether to support Mia's efforts to loss weight. Mia is due for a sports physical so her mother decides to call and talk to her physician and share her concerns about Mia's eating behaviors before the visit.

1. What initial information have you gathered?

2. What are the family's nutrition concerns?

3. What interview questions would you ask to gather more information?

4. What screening and assessment would you conduct?
   Weight in pounds/Height in inches/Height in inches x 703 = BMI

5. Identify three areas of counseling that you would provide to the family and other caregivers.

6. Identify three nutrition resources that might be helpful for the family.

1. What initial information have you gathered?

   15-year old girl

   Weight, 125 pounds, length 65 inches

   Weigh herself everyday

   Enjoys singing, dancing, acting in school plays

   Enjoys playing soccer in the fall and spring on the girls' soccer team

   Usually goes to the library to study during the lunch break instead of the cafeteria to eat lunch

   Feels that she doesn't need to eat if she is not hungry

   Grabs a snack in the school vending machines or at a convenience store

   Mother reports that Mia has no time to eat meals with the family

   When her weight goes above 125 pounds, Mia typically limits her intake to bagels, low-fat yogurt, fruits, and vegetables (mainly salads) and does not eat meat products and desserts

2. What are the family's nutrition concerns?

   Mia is concerned that she is gaining too much weight

   Mother concerned about Mia's eating behaviors

3. What interview questions would you ask to gather more information?

   Which meals do you usually eat each day? How many snacks? How many times a week do you skip breakfast?

   Are they any foods you won't eat? If so, which ones?

   What changes would you like to make in the way you eat?

   How do you feel about the way you look?

   Do you feel you are overweight? Why?

   Are you trying to change your weight? If so, why? In what ways are you trying to change your weight?

   See Interview Questions (pages 113–114)

   See Eating Disorders chapter (pages 190–199)

   See Appendix C: Nutrition Questionnaire for Adolescents and Interpretation (pages 237–242)

4. What screening and assessment would you conduct?

   Measure and plot weight-for-age on CDC growth charts: between 50th and 75th percentiles

   Measure and plot stature-for-age on CDC growth charts: between 50th and 75th percentiles

   Calculate BMI-for-age on CDC growth charts: between 50th and 75th percentiles

   Weight in pounds/Height in inches/Height in inches x 703 = BMI

   125/65/65 x 703 = 20.79 ~ 21

   Evaluate the appearance of the adolescent's skin, hair, teeth, gums, tongue, and eyes

   See Screening and Assessment (pages 114–116)

   See Eating Disorders chapter (pages 190–199)

   See Appendix D: Key Indicators of Nutrition Risk for Children and Adolescents (pages 243–248)

   See CDC Growth Charts (Bright Futures in Practice: Nutrition—User's Guide)

5. Identify three areas of counseling that you would provide to the family and other caregivers.

   The quality of the diet often decreases from childhood to adolescence from adolescents are more independent and make their own food choices. Encourage adolescents to practice healthy eating behaviors. Encourage parents to provide a variety of healthy foods at home and to make family mealtimes a priority.

   Explain that a healthy body weight is based on a genetically determined size and shape rather than on an ideal, socially defined weight.

   Help adolescents understand and accept normal physical changes (e.g., weight changes; the widening of females' hips and fat accumulation in their bodies).

   Help the adolescent build a positive body image by explaining that people come in unique sizes and shapes, within a range of healthy body weights.

   Discuss healthy eating behaviors, ways to achieve them, and the importance of not skipping meals.

   Discuss healthy and safe ways for adolescents to achieve and maintain a healthy weight.

   See Nutrition Counseling, Middle Adolescence (pages 119–121)

   See Vignette: A Dancer's Dream (page 126)

   See Frequently Asked Questions About Nutrition in Adolescence (pages 128–132)

   See Appendix F: Stages of Change—A Model for Nutrition Counseling (pages 251)

   See Appendix I: Tips for Fostering a Positive Body Image Among Children and Adolescents (page 257)

6. Identify three nutrition resources that might be helpful for the family.

   See Appendix J: Nutrition Resources (pages 258–265)