Overview

Decision makers in public education are increasingly recognizing the benefit of positive early educational experiences for young children and are moving toward providing education programs for the Prekindergarten (PreK) child in the public school setting. At present, forty states have at least one state-funded preschool program and other states have programs forthcoming. However, to date, there has been no research related to identifying issues associated with serving the nutritional needs of this new customer, the PreK child, in the school setting. To address this issue, the National Food Service Management Institute (NFSMI), Applied Research Division embarked upon a two-phase research study to explore the practices, perceptions, and perceived barriers facing school nutrition directors, school nutrition managers, and other school professionals (principals, classroom teachers, and early education directors) who serve the nutritional needs of PreK children.

In Phase I of the research study, four two-hour focus group sessions were conducted. Four school nutrition directors from selected school districts in Alabama, Georgia, Louisiana, and Mississippi were contacted and asked to identify a school nutrition manager, a principal, a classroom PreK teacher, and the early education director and/or federal programs director to participate in the discussion sessions. The school professionals were asked semi-structured, open-ended questions designed to explore issues associated with serving the nutrition needs of PreK children. Following the focus groups, the researchers thematically coded the responses into meaningful categories that were used to develop survey statements for Phase II of the study.

Phase II of the research study utilized survey methodology. The four section questionnaire was developed from the qualitative data obtained from the focus group sessions. The survey contained three sections asking participants to indicate their agreement with practices, perceptions, and their perceived barriers related to serving the nutritional needs of the PreK child at their school. In the fourth section, participants were asked to provide information about themselves and their school district. The sample participants for the study were school nutrition directors, school nutrition managers, elementary school principals, PreK classroom teachers, and early education directors in public school districts with PreK programs. When analyzing the data collected from the surveys, seven identifiable practice area categories emerged: Communication and Training, Nutritious Meals and Meal Experiences, Administrative Support, Encouragement, Mealtime Opportunities, Dining Environment, and Healthy Wellness Practices.

The findings of this research suggest a team approach among school professionals is essential to serving the needs of the PreK child in the public school setting.
should be implemented to fully meet the needs of the PreK child. Team members should include, but not be limited to, the school nutrition director, school nutrition manager, PreK teachers, principals, and early education director. Effective communication among team members is essential. Understanding how each team member can and does contribute in each of the seven practice areas will enhance the provision of nutritional services for the PreK child.

The information presented in this Insight highlights the results of a two-phase research study. The study results will assist NFSMI, state agencies, and training consultants in developing and presenting training materials that will aid school nutrition directors and other school professionals involved in serving the nutrition needs of PreK children. Also, training materials that already exist will be highlighted in the Insight in an effort to better serve and inform those school professionals desiring available training materials.

**OBJECTIVES**

The objectives of this study were to:

- identify states currently providing services to the PreK child in the public school setting,
- conduct focus group interviews with school nutrition directors and school professionals on the issues associated with providing for the nutritional needs of the PreK child,
- develop a survey instrument to measure school nutrition directors’, school nutrition managers’, principals’, early education directors’, and teachers’ perceptions and practices, and their perceived barriers to serving the nutritional needs of PreK children,
- conduct a survey on the study groups and
- compare differences among the survey groups with regard to their perceptions and practices, and their perceived barriers to providing for the nutritional needs of PreK children.

**METHODS**

**Phase I - Focus Groups**

During Phase I, four two-hour focus group sessions were conducted. States were profiled to identify those with PreK programs, and four states (Alabama, Georgia, Louisiana, and Mississippi) were selected based on a varied level of experience in offering PreK classes, diverse student population, and geographic location that allowed researchers to drive to the site.

The discussion sessions were held in the local school district at a school or district office. The sessions were facilitated by an NFSMI research scientist with an assistant moderator/recorder capturing the school professionals’ comments, and each session was also tape-recorded. The professionals were asked semi-structured, open-ended questions designed to explore issues associated with serving the nutritional needs of the PreK child in the school setting.

**Phase II - Survey Development and Survey Research**

Researchers collapsed the responses to the questions in Phase I into meaningful categories. Based on the collapsed responses, participants indicated their role in serving the nutritional needs of the PreK child could be classified into four areas: administration, quality meals, nutrition education, and encouragement of children. Challenges that participants encounter were classified into child-friendly menus, developmental issues, special nutrition needs, administrative details, parent issues, and teacher issues. Responses to the question on what was needed to assure a quality environment for the PreK child were sorted into four groups: responsiveness to children’s needs, friendly and well-trained staff, effective communication and appropriate equipment/facilities.

Using these groupings, a four section questionnaire was developed from the qualitative data obtained from the focus group sessions. The survey contained three sections asking participants to indicate their agreement with practices, perceptions, and barriers related to serving the nutritional needs of the PreK child at their school. In the fourth section, participants were asked to provide information about themselves and their school district.

**PHASE I: FOCUS GROUP QUESTIONS**

- How does this age group differ from other elementary children?
- What do you see as your role in serving the nutrition needs of the PreK child?
- Based on your experience, what has been the greatest challenge to serving the nutrition needs of PreK children in the school setting?
- Describe what it would take to assure a quality environment to serve the nutrition needs of this age group.
- What factors should be considered to ensure a quality program?
- What has been your greatest success in serving the nutritional needs of the PreK child in the school setting?
- If you were provided the opportunity to make a wish list, what information/resources would assist you in serving the nutrition needs of the PreK child?
- Are there any issues or concerns that we have not discussed?
Seven hundred school districts with PreK programs were randomly selected to participate in Phase II of the research study. Five packets of surveys were mailed to the school nutrition director, who was advised to complete one survey and distribute the remaining packets to the school nutrition manager, elementary school principal, PreK classroom teacher, and early education director. This resulted in a total of 3,500 mailed surveys.

**FINDINGS**

**Section I of Survey - Practices**
In section one of the survey, respondents were provided with 42 statements regarding practices in serving the nutritional needs of the PreK child at their school and were asked to indicate their agreement with each statement using a scale ranging from 1, strongly disagree to 4, strongly agree with a fifth response for “not applicable.” The mean or average values were obtained by adding all the responses/data and dividing by the number responding to the statement. The top five practice statements with means ranging from 3.59-3.56 are listed below.

- “I encourage children to try new foods.” (3.59)
- “The food service staff follows the USDA meal pattern.” (3.58)
- “I encourage children to try the foods offered.” (3.58)
- “My immediate supervisor supports a consistent routine for this age child.” (3.56)
- “Children who do not have lunch money are fed following school policy.” (3.56)

**Top Five Perceptions**

- “Children feel safe in the cafeteria.” (3.42)
- “School professionals can influence PreK children to make healthy food choices.” (3.40)
- “Children view the cafeteria as a friendly place.” (3.38)
- “Teaching the child to make good food choices is challenging.” (3.30)
- “The style of service in the cafeteria is child friendly.” (3.29)

**Top Five Perceived Barriers**

- “Parents’ knowledge of quality food nutrition for the PreK child is limited.” (2.93)
- “Handling trays and opening items present challenges for the PreK child.” (3.01)
- “Meals brought from home consist of unhealthy snack items.” (3.04)
- “School staff needs continuous training on nutrition education.” (3.06)
- “PreK children require additional time to eat.” (3.10)
Environment, and Healthy Wellness Practices. These findings suggest that serving the nutritional needs of PreK children is a more wide-ranging and complex undertaking than just serving meals. A team approach is an appropriate form of implementation to fully meet the needs of the PreK child. Team members should include, but not be limited to, the school nutrition director, school nutrition manager, PreK teachers, principals, and the early education director. Understanding how each team member can and does contribute in each practice area will enhance the provision of nutritional services for the PreK child. Effective communication among team members is essential.

For example, one theme which emerged within this study was the importance of school officials creating a nurturing environment for the PreK child within the dining area. Upon examination of the perception ratings by school professionals, the majority of items that rated 3.20 or higher appear to fall into two categories, dining issues or adult influences. Statements such as “children feel safe in the cafeteria,” “children view the cafeteria as a friendly place,” and “the style of service is child friendly” demonstrate the importance of understanding school professionals’ perceptions related to the dining experience for the PreK child. Statements such as “school professionals can influence PreK children to make healthy food choices,” “teaching the child to make good food choices is challenging,” and “school staff model appropriate mealtime behavior” suggest that positive adult influence on PreK children is recommended and cannot be underestimated. Communication among school team members and full understanding of team members’ roles will alleviate some of the differences in opinions that school professionals indicated regarding several perceptions. All school professionals either agreed or strongly agreed that 4 of the 18 barrier statements were indeed barriers to serving the nutritional needs of the PreK child. These statements, “PreK children require additional time to eat,” “school staff needs continuous training on nutrition education,” “meals brought from home consist of unhealthy snack items,” and “handling trays and opening items present challenges for the PreK child” should be the launching point for discussion among school team members.

Section II of Survey – Perceptions
In section two of the survey, respondents were provided with 24 statements concerning perceptions in serving the nutritional needs of the PreK child at their school and were asked to indicate their agreement with each statement using the same 4 point scale. Listed below are the top five perception statements with the highest agreement mean ratings.

- “Children feel safe in the cafeteria.” (3.42)
- “School professionals can influence PreK children to make healthy food choices.” (3.40)
- “Children view the cafeteria as a friendly place.” (3.38)
- “Teaching the child to make good food choices is challenging.” (3.30)
- “The style of service in the cafeteria is child friendly.” (3.29)

Section III of Survey - Perceived Barriers
In section three, respondents were presented with 18 statements regarding perceived barriers that could inhibit school professionals from serving the nutritional needs of the PreK child at their school and were asked to indicate their agreement using the same 4 point scale. The top five barrier statements with the highest agreement mean ratings are listed below.

- “Parents’ knowledge of quality food nutrition for the PreK child is limited.” (2.93)
- “Handling trays and opening items present challenges for the PreK child.” (3.01)
- “Meals brought from home consist of unhealthy snack items.” (3.04)
- “School staff needs continuous training on nutrition education.” (3.06)
- “PreK children require additional time to eat.” (3.10)

Assessment of Survey Statements
When analyzing the survey responses, seven identifiable practice area categories emerged: Communication and Training, Nutritious Meals and Meal Experiences, Administrative Support, Encouragement, Mealtime Opportunities, Dining Environment, and Healthy Wellness Practices.
For example, the barrier "PreK children require additional time to eat" may fall under the practice area categories "Dining Environment" or "Mealtime Opportunities." Once identified, this barrier may be addressed on multiple levels of responsibility as school professionals work together to define and improve their roles in the dining experience of the PreK student. If adding more time to the lunch schedule is not a possibility, other options could be explored. Perhaps teachers could modify their practices to more efficiently escort students in and out of the cafeteria, or the school nutrition manager could find new ways to ensure foods are prepared in a timely manner to prevent delays in serving lines. Teamwork and discussion may reveal correlations between problems. For example, perhaps younger children take longer to eat because they have difficulty opening food items. Recommendations might be for the school nutrition director to purchase items that eliminate this problem or for teachers to provide closer adult-child interaction during mealtime.

Educational materials are needed to help school professionals address developmental issues of the PreK child. Since PreK children are new customers in the public school setting, school nutrition directors, managers, and staff need to be aware of the unique needs of 3 and 4 year-old children. Modules should address menu concerns, equipment issues, and motor/skill development for application in their school nutrition program.

**NFSMI Resources to Assist Your Efforts with PreK**

At this time, there are few resources designed specifically for serving the nutrition needs of the PreK child in the school setting. NFSMI has several child care resources developed for this same-aged child that may assist your efforts, until other resources are available. They are:

**More Than Mudpies**
- Geared for 3-5 year old children
- Seasonal Lessons
- Nutrition Lessons

**Happy Mealtimes for Healthy Kids**
- Nutrition Ideas
- Feeding Kids
- Interactive Staff Activities
- Parent Resources

**Tickle Your Appetite**
- Nutrition Education
- Activities for Children
- Reproducible Materials
- Videotape
