

2008 Child Nutrition Showcase Abstracts

Investigation of Factors Impacting Participation in the National School Lunch Program by High School Students

Please note that this study was published before the implementation of Healthy, Hunger-Free Kids Act of 2010, which went into effect during the 2012-13 school year, and its provision for Smart Snacks Nutrition Standards for Competitive Food in Schools, implemented during the 2014-15 school year. As such, certain research may not be relevant today.

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Purpose/Objective

The purpose of this project is to develop a survey that identifies issues affecting the participation of high school students in the National School Lunch Program (NSLP).

Method

Based on focus groups previously performed by the National Food Service Management Institute (NFSMI), a survey instrument was drafted to explore why high school students choose not to eat school lunches. A total of 19 school districts (32 high schools) from seven USDA regions participated in three rounds of pilot tests during survey development. Factor analyses were used to statistically collapse responses into meaningful categories reflecting factors affecting the participation.

Results

Factor analyses showed that low participation can be attributed to seven key issues, some of which are beyond the school nutrition (SN) program's control. Operationally controllable issues arise mainly from food quality, staff, and access to food. Issues beyond the SN program's control include seating capacity of facilities, food from home, personal time, and schoolwork. Among these factors, students stated that they would be most likely to participate if they saw improvements in the following attributes: overall quality of the food, variety of menu items from day to day, and time spent waiting in line.

Applications to Child Nutrition Professionals

NSLP participation in the high school level has continued to decline over the years. Because the survey developed specifically targets students who eat in the school cafeteria two or less times a week, results will be useful in helping SN professionals identify the specific issues that can be improved to increase participation. The survey will be made available in a downloadable format on the NFSMI website. In addition, findings from the survey will provide the foundation for developing best practices for addressing participation issues in the high school setting.

Perceptions and Practices of School Professionals Regarding Recess Placement Issues in Elementary Schools

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Purpose/Objective

The purpose of this study was to investigate perceptions and practices of school professionals (school nutrition (SN) directors, school administrators, and teachers) related to recess placement issues in elementary schools.

Method

A random sample representing 700 school districts and all USDA regions was selected. A survey

was developed based on qualitative focus group data and addressed perceptions regarding the impacts of recess placement, issues to consider when scheduling recess and implementing recess before lunch programs, and knowledge and attitudes about recess before lunch programs. Surveys were mailed to SN directors, who distributed surveys to principals/assistant principals and teachers, resulting in a total of 2,100 surveys. Statistical analyses included descriptive statistics, t-tests, exploratory factor analysis, and multivariate analysis of variance.

Results

A total of 332 surveys (15.8%) were returned, with all groups of school professionals represented. Participants believed that recess before lunch programs, compared with recess after lunch programs, had more positive impacts on children's food consumption, cafeteria behavior, and recess/classroom behavior. Participants also believed that recess before lunch programs created additional needs, required more support from all involved parties, and created more scheduling difficulties. Child feeding implications was rated as the most important factor to consider when scheduling recess, followed by behavior, scheduling, personnel support/workload, and logistics. Issues rated as most important for successfully implementing a recess before lunch program included having strong leadership for the program, all involved parties working together to establish policy, and maintaining a positive attitude about the program. Overall, the majority of participants supported scheduling recess before lunch.

Applications to Child Nutrition Professionals

School professionals identified both positive and negative impacts of recess before lunch programs, but the majority supported scheduling recess before lunch in elementary schools. School professionals should consider the issues and practices identified in this study when scheduling recess in relation to lunch and implementing recess before lunch programs.

Perceptions of School Nutrition Professionals Regarding Their Role in School Wellness

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Purpose/Objective

The purpose of this study was to investigate perceptions of school nutrition (SN) professionals regarding their role in supporting and contributing to the school wellness environment.

Method

A random sample representing 700 school districts and all United States Department of Agriculture (USDA) regions was selected. A survey instrument was developed based on qualitative data from an expert panel discussion and addressed roles of SN professionals in school wellness and factors associated with a greater contribution to school wellness. Surveys were mailed to SN directors, who distributed surveys to SN managers in their districts, resulting in a total of 1,400 surveys. Statistical analyses included descriptive statistics and exploratory factor analysis.

Results

A total of 462 surveys (33%) were returned, with all USDA regions represented. The roles related to school wellness rated as most important by SN professionals included addressing food safety issues, making healthier menu choices available, and encouraging students to make healthy food choices. In general, roles rated as most important were also roles in which participants reported the greatest level of involvement. Roles rated as least important included writing grants to provide funding to support wellness activities, evaluating the implementation of wellness activities, and assessing the impact of wellness activities, although each of these roles was still considered important. Participants most strongly agreed that financial support for school wellness initiatives, time to devote to wellness initiatives, and support from parents were factors that would promote a greater contribution to school wellness.

Applications to Child Nutrition Professionals

SN professionals considered all roles related to school wellness important. However, they reported little to no involvement in many roles assessed, suggesting the potential for a much greater role for SN professionals in school wellness. Factors promoting a greater contribution to school wellness identified in this study will be helpful in expanding the roles of SN professionals in school wellness.

Arts-Based Nutrition Education Program for Elementary School Children

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Purpose/Objective

School-based nutrition programs are among the intervention methods most commonly used to combat obesity and type-2 diabetes in youth, yet the rising prevalence of childhood obesity has made clear the need for improved education programs. The objective of this study was to assess the effectiveness of an arts-based nutrition education program among elementary school children.

Method

Children in 1st-2nd grade (N=26) and 3rd-6th grade (N=27) were stratified by grade level and preliminary test score and then randomly assigned to either an arts-based or a standard classroom-based nutrition class, each of which met for 10 1-hour sessions over the course of 5 weeks. The arts-based curriculum involved a discussion component and an arts and craft project for each topic covered, whereas the classroom-based approach relied heavily on discussion, worksheets, and games. Both classes covered the same content from the USDA MyPyramid including food groups, nutrients, and exercise habits. To measure effectiveness, students were tested on the material prior to the start of the program and after completion of the classes and focus groups were conducted to assess student satisfaction and responsiveness.

Results

Mean test scores improved in both the 1st-2nd and 3rd-6th grade students in both the arts-based and classroom-based programs, however students in the arts-based intervention did significantly better on the post-program assessment than students in the classroom-based control group. The average score change was significantly higher (almost two-fold) for students in the arts-based intervention ($p=0.005$ for 1st-2nd grade, $p=0.019$ for 3rd-6th grade). Moreover, students in the arts-based class offered very positive feedback about the program whereas student opinion was mixed among the controls.

Applications to Child Nutrition Professionals

An arts-based nutrition program may be an effective method for teaching healthy eating to elementary school children; however, further research is necessary to understand whether students also translate this knowledge into healthy eating behaviors.

Developing Competency-Based Performance Appraisals for School Nutrition Managers and Assistants

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Purpose/Objective

The purpose of this study was to develop performance appraisal instruments and an accompanying resource guide using performance standards for school nutrition (SN) managers and assistants/technicians based on the National Food Service Management Institute (NFSMI) Competencies, Knowledge, and Skills (CKS) for School Nutrition Managers and CKS for Effective School Nutrition Assistants/Technicians.

Method

Structured telephone interviews with expert panels of SN professionals were conducted to explore components needed in a performance appraisal and resource. Drafts were developed using expert panel results, a review of pertinent research literature, and samples of existing instruments submitted by SN professionals. The expert panel evaluated the drafts using a guided review instrument. After revisions were made according to panel suggestions, the instruments and resource were sent to a national review panel of SN professionals and state agency personnel.

Results

The expert panels indicated that an effective performance appraisal instrument should have (1) criteria clearly defining expected performance, (2) rating scale appropriately reflecting criteria, (3) clear instructions, (4) a user-friendly format, (5) space for comments, and (6) a plan for improvement. The appraisal instrument developed was anchored on a five-point scale (5-Exceeds standard, 4-Area of strength, 4-Meets standard, 2-Area of growth, and 1-Below standard) with specific criteria denoting performance expectations for each functional area. The accompanying guide discussed the importance of a standardized and periodic performance appraisal, the appraisal process, and challenges and techniques to improve results of a performance appraisal.

Applications to Child Nutrition Professionals

The NFSMI Performance Appraisal instruments and guide are based on the CKS needed by SN professionals to be effective. The appraisal instruments were designed to be used as independent documents but are also useful as supplements to school district mandated evaluations. The instruments and resource will be available in a downloadable format on the NFSMI website.

A School-based Approach to Increasing Fruit and Vegetable Intake of High School Students

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Purpose/Objective

The purpose of the study was to establish if nutrition education would increase high school student consumption of fruits and vegetables, increase students' knowledge and self-efficacy, and advance students through the stages of change for fruit and vegetable intake. Additionally, factors that influence fruit and vegetable intake were studied.

Method

Students (n=141) in grades nine through twelve, enrolled in Health and in Nutrition & Wellness classes at Northrop High School, were randomly assigned to intervention or control by class. The intervention in Health classes consisted of 1½ hours of fruit and vegetable focused education for five consecutive days. The intervention in Nutrition & Wellness classes consisted of the regular curriculum taught throughout the semester. Students completed pre- and post-surveys.

Results

Fruit and vegetable intake did not improve with nutrition education provided in Health classes, and did not differ compared to intake by students in Health classes without education; intake declined by 1.1 and 1.2 servings per day respectively. However, fruit and vegetable intake did improve by 0.4 servings per day for students in the Nutrition & Wellness classes. No changes in knowledge, self-efficacy, or stage of change were seen in any of the classes. Of the questions asked about factors related to fruit and vegetable intake, students most strongly agreed with the statement, "I am allowed to eat fruits and vegetables at home whenever I want", and most strongly disagreed with the statement, "Fruits and vegetables give me gas".

Applications to Child Nutrition Professionals

Many factors have the potential to decrease the success of nutrition education, including the limited classroom time experienced in this study. However, child nutrition professionals can collaborate with teachers to provide classroom nutrition education and educational materials. Additionally, child nutrition professionals can extend the learning environment to the cafeteria by providing healthy school meals, kitchen tours, and tasting parties that are consistent with classroom messages.

Survey on Sodium and Potassium Content in Meals of School Foodservices in Busan and Daegu, Korea

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Purpose/Objective

Sodium is a major component that maintains homeostasis and physiological state in body. It is a

essential mineral that the body cannot produce for itself, so it must be supplied from food. On the other hand, overindulgence is one cause of hypertension, stroke, stomach cancer, osteoporosis and kidney disease. Also sodium and potassium balances in body is one cause of hypertension. The purpose of this study is to estimate adequate sodium and potassium content on food for children and decrease sodium intake.

Method

The content of sodium and potassium in foods (including rices, one-dish meals, noodles, gruels, soups, pot stews, simmered main dishes, stir-fried foods, fried foods, grill foods, hard-boiled foods, roasted foods, steamed foods, vegetables, kimchi, sauces, deserts) which were derived from a school foodservice in Busan, Korea, was determined by AAS(atomic absorption spectrometry) after microwave digestion.

Results

Sodium content of sauces (1056.3 mg/100 g) was relatively higher than any other items. Except the sauces, roasted foods contained the highest amount of sodium (783.7 mg/100g). Potassium content of roasted foods was shown to have the highest value (454.4 mg/100 g). We collected 80 main/side dishes. It is necessary to analyze more foods. We are collecting and analyzing about 400 dishes more of school foodservice in Busan and Daegu, Korea to ensure more trustworthy data.

Applications to Child Nutrition Professionals

The result of this study provides fundamental data for the establishment of nutrition policy and estimation of adequate sodium content on food for children. Moreover, building up the sodium content database could contribute to improve the public dietary life.

Child care directors provide insight into practices and training needs for creating a wellness environment in centers participating in the CACFP.

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Purpose/Objective

The purpose of this study was to identify practices and training needs of child care center professionals for creating and maintaining a wellness environment in centers participating in the Child and Adult Care Food Program (CACFP).

Method

A survey instrument was developed based on qualitative data from child care professionals participating in structured interviews and focus group discussions. The survey was mailed to a systematic sample of 700 child care center directors stratified by the seven USDA regions.

Results

Three hundred and sixty-three surveys (52%) were returned, with all USDA regions represented. Study participants (81%) had an associate's degree or higher, 59% had eleven years or more experience as a director, and greater majority (98%) served children ages 3 to 5 years. Respondents (84%) indicated willingness to participate in training three or more times per year. On a 4-point Likert scale (4 = strongly agree to 1 = strongly disagree), directors rated the top five practices contributing to a wellness environment as: encouraging parents to communicate children's allergies and special nutrition needs (3.89 + .31), providing children with healthy beverages (3.88 + .35), encouraging consumption of fruits and vegetables (3.86 + .35), purchasing nutritious foods (3.84 + .41), and providing healthy snacks (3.83 + .39). Directors responded to their training needs and those of their staff. Mean scores for training needs of directors and staff ranged from 3.5 to 2.87 and 3.15 to 3.01, respectively, indicating a greater perceived need for staff training.

Applications to Child Nutrition Professionals

The findings from this study could assist in the identification of best practices or quality indicators for creating and maintaining wellness environment in child care centers participating in the Child and Adult Food Care (CACFP).

The identification of best practices for school nutrition professionals serving the nutritional needs of Pre-Kindergarten children

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Purpose/Objective

The purpose was to identify goals and best practices for school nutrition (SN) professionals serving the nutritional needs of Pre-Kindergarten (PreK) children in public schools. Seven practice categories (Communication and Training, Administrative Support, Encouragement, Mealtime Opportunities, Dining Environment, Nutritious Menus and Meal Experiences, and Healthy Wellness Practices) identified in previous NFSMI research provided the foundation for the study.

Method

Researchers followed a best practice research model methodology to identify goals and best practices. In Phase I, an expert panel of SN directors and school administrators identified goals and best practice statements that grouped around the practice categories, reached consensus on the placement of goals and statements, and provided suggestions for formatting the best practice guide. In Phase II, a review panel followed a guided process to evaluate the draft guide. Panel members assessed the content, scope, selection and placement of goals and statements, format, and the efficacy of the guide as a self-assessment tool.

Results

The final version consisted of the seven practice categories with 17 goals and 97 best practice statements. The guide was formatted into a Web-based, user-friendly, self-assessment checklist. Listed within each of the seven practice categories are the goals and best practice statements. Each statement is assessed following a 4-point scale (unsatisfactory, needs improvement, area of strength, and demonstrates excellence) with not applicable as an option to select should the best practice statement not address specific program needs.

Applications to Child Nutrition Professionals

The NFSMI Best Practice Guide for SN Professionals Serving the Nutritional Needs of Pre-Kindergarten Children is a self-assessment tool for SN professionals that could be used to monitor and set goals for continuous quality improvements and report accomplishments of existing PreK programs. The guide may also be used to identify specific roles of stakeholders and resources necessary for planning and implementing nutrition services for new PreK programs.

Special Food and Nutrition Needs in Schools: Prevalence and Training Needs

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Purpose/Objective

The study purpose was to identify the prevalence of special food and nutrition needs in school-aged children and training needed by school nutrition (SN) professionals serving these children.

Method

An expert panel was convened to discuss issues related to serving school-aged children with special food and nutrition needs. This qualitative information was used to develop a survey that was mailed to a random sample of 700 SN directors stratified by USDA region. SN directors were asked to complete a survey and distribute one to a SN manager with experience serving special needs children, totaling 1400 surveys distributed.

Results

A total of 406 surveys (29%) were returned. Nearly half of the participants worked at the district level (49.6%), while the remaining were either SN managers (16.1%) or listed their job title as other (34.3%). Respondents indicated which of 29 potential food and nutrition needs were currently being accommodated in their school/district. The top three included milk allergies (80.6%), peanut allergies (76.2%) and general food intolerances (62.7%). Participants then used a 4-point scale (4,

strongly agree to 1, strongly disagree) to rate agreement with 19 statements on training needed to serve children with special needs. All 19 statements had means that tended to be neutral, indicating that none of the training needs were seen as extremely necessary. However, participants were most likely to agree that they needed training on implementing an Emergency Allergy Response Plan (2.95 + .71), understanding what conditions are considered disabilities under section 504 (2.88 + .69), and identifying foods to avoid for specific allergies (2.72 + .79).

Applications to Child Nutrition Professionals

With the growing prevalence of special needs of children, resources and training modules tailored to SN operations are needed. SN professionals can then evaluate the resources for implementing practical strategies most appropriate for addressing food and nutrition needs existing in their operations.

Perceptions of school professionals and parents regarding issues associated with school wellness in elementary schools

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Purpose/Objective

The purpose of this study was to investigate perceptions of school nutrition directors (SND), principals, teachers, and parents regarding school wellness issues in elementary schools. Study objectives were to explore components associated with a healthy school environment, identify the barriers to implementing a local wellness policy (LWP), and determine the resources needed to adequately implement the policy.

Method

Qualitative data collected from focus group discussions were used to develop a survey that was mailed to 700 SNDs. Included with the SND's survey were three identical survey packets for an elementary school principal, teacher, and parent of an elementary school child for a total sample size of 2,800.

Results

Five hundred and seventy-five surveys (20.5%) were returned. The study groups were almost equally divided, and more than half (57.5%) of those returning the survey had an active role in wellness policy implementation. A 5-point Likert scale (5 = strongly agree to 1 = strongly disagree) rated survey statements related to healthy school environment, LWP implementation barriers, and resources needed. Out of 17 statements exploring agreement to issues influencing a healthy school environment, respondents rated 12 of the statements with a mean score of 4.5 and greater. The environment statements focused primarily on safe and secure, clean cafeteria, and physical activity. Barriers most strongly agreed upon were support from administration, teachers, and parents/families with a mean score of 4.47 and greater. The most needed resources identified were nurses, physical education instructors and parent education materials; mean scores were 4.29 and greater.

Applications to Child Nutrition Professionals

To further the wellness efforts in elementary schools, train-the-trainer modules for school professionals and parents addressing their role in supporting a healthy school environment would be beneficial. A best practice resource could provide a model for members of the school community to implement, manage, and evaluate the necessary steps to creating a wellness environment.

NFSMI Best Practice Guide for Recess Before Lunch in Elementary Schools

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Purpose/Objective

The School Health Policies and Programs 2006 study found that 96.8% of elementary schools provided regularly scheduled recess during the school day for at least one grade. However, only 10.4% of elementary schools provided regularly scheduled recess immediately before lunch for students in all grades. Improved children's nutrition and behavior are benefits of recess before lunch (RBL). The purpose of this study was to develop a best practice guide to implement and/or assess RBL in elementary schools.

Method

Following a best practice research model, five practice categories and 106 best practice statements were drafted from previous National Food Service Management Institute Applied Research Division (NFSMI/ARD) research examining the perceptions of school professionals regarding RBL issues in elementary schools. A two-day workgroup meeting with school nutrition directors (n=3), principals (n=2), and state agency personnel (n=2) from six states convened in January 2008 to provide input and comments on the draft practice categories and best practice statements to develop a guide for recess placement before lunch in elementary schools.

Results

Three practice categories (personnel support/workload, logistics and scheduling) and 16 best practice statements were confirmed. The statements could be assessed using a "Stage of Implementation or Assessment" scale. The guide includes additional sections: "Considerations" directly relating to RBL and "Professional Reminders" relating to standard practices. The workgroup participants then evaluated the updated draft guide via electronic mail and provided comments. The RBL Best Practice Guide was further evaluated and pilot tested by a review panel to validate usefulness.

Applications to Child Nutrition Professionals

The RBL Best Practice Guide is a Web-based resource that can be used as a guide by school nutrition professionals for implementing services that support a RBL policy or as an assessment tool for school nutrition programs with an existing RBL program in elementary schools.

Snackwise® A Nutrient Density Approach to Snack Food Selection

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Purpose/Objective

Create a software calculator to evaluate the nutrient density (nutrient-to-calorie ratio) of packaged snack foods, assessing both desirable and undesirable nutrients based on nutrition label information.

Method

The ratings of the test software program and nineteen dietitians (13 + 9 yrs experience) were compared for 64 snack items using label information. RDs rated items from 1 (least) to 5 (most) nutritious. The software used 10 weighted nutrition parameters (calories, total fat, saturated and trans fat, sugar, protein, fiber, calcium, vitamin A, vitamin C, iron) to evaluate the total nutrient contribution, allotting positive and negative points for nutrients to increase or limit. Note: reformulation in 2007 adjusted software to better match US Dietary Guidelines 2005.

Results

Inter-observer correlation between dietitians assessment of snacks showed an intra-class coefficient $r = 0.78$. The software versus dietitian assessment also showed a Pearson's correlation of $r = 0.78$. The software's weighted nutrition parameters reflected the opinions of 19 experienced dietitians when assessing the nutritional value of vended snack items. The 64 tested snacks arrayed by points versus dietitian ratings formed a continuum of value scores. The snack foods were grouped arbitrarily into three categories of nutritional quality. Symbols were used for ease of consumer education as green-"best choice," yellow-"choose occasionally," or red-"choose rarely".

Applications to Child Nutrition Professionals

Combining nutrients to increase with those to limit utilizes entire nutrition facts label, assessing a snack's nutrient density. Broad application is advocated for schools, business, hospitals, government agencies and industry to provide an environment that supports healthier options.

Several small pilot studies have been conducted which favors the idea that when Snackwise® is implemented at school, students will choose a healthier packaged snack food. A large scale study is needed to confirm this hypothesis. Utilizing a nutrient density approach to select and promote packaged snack foods can help to direct individuals to use the nutrition facts label to select healthier packaged snack foods, provide nutrition guidelines based on nutrient density and improve the nutrition environment at school and in business and industry.

Operational Issues Encountered by School Nutrition Directors in School Districts with Enrollments of Less than 30,000

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Purpose/Objective

The purpose of this project was to identify the issues associated with operating school nutrition (SN) programs in school districts with enrollments of less than 30,000.

Method

A random sample representing 700 school districts with enrollments of less than 30,000 students across the USDA regions was selected. The survey was adapted from a similar study that explored operational issues in school districts with enrollments of 30,000 or more students.

Results

A total of 257 (37%) surveys were returned. The responding SN directors were predominantly female (86%) with a baccalaureate degree or higher (62%) and have worked in SN programs for at least 11 years (72%). Over one-fourth (26%) indicated they would retire in the next five years. Almost one-half (45%) were employed in districts with less than 2,799 students, while 36% and 20% of respondents worked in districts ranging in size from 2,800–9,999 students and 10,000–29,999 students, respectively. Respondents used a 4-point scale (4, strongly agree to 1, strongly disagree) to rate agreement with 52 statements regarding SN operational issues and practices. Operational issues with the highest mean ratings were: “I operate the SN department as a business within the school setting” (3.8 + 0.6), “I serve as the SN representative with district administration” (3.8 + 0.7), and “I view my leadership skills as impacting the success of the SNP” (3.8 + 0.5). Eleven statements had a mean rating of greater than 3.5 and another 16 statements had a mean rating greater than 3.0; this suggests that SN directors agreed with these operational issues.

Applications to Child Nutrition Professionals

These findings demonstrate that SN directors are business-minded career professionals operating the business of SN within the school setting. This information can be used to customize education and training programs that better prepare SN professionals to address the operational issues encountered.

School Nutrition Directors Identify Leadership Characteristics and Qualities Needed for Success

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Purpose/Objective

The objectives of this study were to identify leadership characteristics and qualities perceived by school nutrition (SN) directors as necessary for success and determine whether training is needed to develop these attributes.

Method

survey was mailed to all SN directors in districts with 30,000 or greater student enrollment and to a random sample of 700 school districts with enrollments of less than 30,000 students (N=932). Descriptive statistics included means, standard deviations, and frequencies of total responses.

Result

A total of 355 (38%) surveys were returned. The majority of respondents were female (83%) with a baccalaureate degree or higher (71%). Almost one-third (32%) were employed in districts with less than 2,799 students, while another 28% worked in districts with an enrollment greater than 30,000 students. Respondents used a 4-point scale (4, very important to 1, not important) to rate the importance of 33 leadership characteristics/qualities to being a successful SN director. The characteristics/qualities with the highest mean ratings were "maintains integrity" (3.9 + 0.3), "accepts responsibility" (3.9 + 0.3), and "finds solutions" (3.9 + 0.3). When asked to indicate the importance of training for developing these leadership characteristics/qualities, SN directors rated 31 of the 33 items 3.0 or greater using the same 4-point scale. The characteristics/qualities with the highest importance ratings for training were "handles difficult people and different personalities" (3.7 + 0.6), "handles conflict effectively" (3.6 + 0.6), and "leads others effectively" (3.6 + 0.6).

Applications to Child Nutrition Professionals

Findings demonstrate a need for developing education and training programs to support SN directors. It is apparent that SN directors value education and believe leadership attributes are vital for a SN director's success. Findings from this study could provide the foundation for leadership education and training programs.

School Nutrition Directors are Receptive to Web-Based Training Opportunities

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Purpose/Objective

The purpose of this study was to investigate school nutrition directors' (SNDs) previous experience with web-based training (WBT), interest in utilizing WBT within 14 functional areas, and logistical issues (time, price, educational credits, etc) of developing and delivering WBT learning modules.

Method

A survey was developed based on a previous qualitative study exploring SNDs opinions and perceived benefits and barriers regarding WBT. A random sample of 700 SNDs equally stratified by USDA regions was used. Survey responses were analyzed using descriptive statistics, Chi-square and one-way ANOVA tests.

Results

A total of 210 (30%) usable surveys were returned with adequate representation of SNDs with varying educational achievement, certified/credentialed status, and geographical location. Although the majority (57%) of SNDs reported previous experience with WBT, experiences were mostly limited to basic tasks and relatively few SNDs had interacted with an instructor or earned education credits through WBT. Benefits of WBT outnumbered barriers. The most frequently identified benefits included completing the training at anytime, self-directed learning, not traveling, and financial savings. Barriers included technology issues or computer problems and lack of interaction with an instructor. In total, 95% of SNDs indicated they would participate in WBT. Forty-eight percent of SNDs indicated the importance of earning credits for WBT, while 45% of SNDs would complete WBT regardless of earning any type of credit. On a 5-point scale [1=very disinterested, 5=very interested], WBT interest ratings were above 3.4 for all functional areas. Although 83% of SNDs would complete WBT at work, there was uncertainty whether their organizations would provide workday release time to participate.

Applications to Child Nutrition Professionals

Overall interest and support for WBT is high among SNDs. If barriers and logistical concerns are properly considered, SNDs would participate in WBT to meet their individualized learning needs and enhance their professional development.