Research Article

Teacher Perceptions and Preferences for 5 School Breakfast Program Models

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ABSTRACT

Objective: Identify differences in teacher perceptions of benefits, challenges, and preferences to different *School Breakfast Program* (SBP) service models.

Design: A cross-sectional study design was used and an electronic survey was distributed to teachers throughout the state of Utah.

Setting: Kindergarten through 12th-grade schools throughout Utah.

Participants: A convenience sample of 369 kindergarten through 12th-grade teachers in Utah.

Variables Measured: Demographics, benefits and challenges, and teacher preference for SBP models in Utah.

Analysis: Frequencies and multiple comparison analysis tests were performed. A level of significance of <.001 was chosen to protect for multiple comparisons.

Results: Traditional breakfast was the most preferred model, with a mean score of 2.8; *Breakfast in the Classroom* was the least preferred model by teachers, with a mean of −1.3 (scale used = −5 to 0 to 5). Children not going hungry was the greatest benefit (95.4%; n = 352) to SBP and food waste was the greatest challenge (45.8%; n = 168).

Conclusions and Implications: Teachers prefer traditional SBP model over BIC and other nontraditional models. Increased awareness and education regarding benefits and challenges of SBP models may increase teacher preference for nontraditional SBP models, especially BIC.

Key Words: *Breakfast in the Classroom*, children, *School Breakfast Program*, teachers (*J Nutr Educ Behav*. 2018;■■:■■–■■.)

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INTRODUCTION

Obesity is an epidemic of increasing concern[1-3] that is highly correlated with negative health conditions in both adults and children. These conditions include low self-esteem, high blood pressure, gallstones, breathing difficulties, type 2 diabetes, stroke, and cancer.[4,5] The school environment is an ideal location to help combat childhood obesity. This is because a majority of America's children can be reached, and school nutrition programs such as the *National School Lunch Program* (NSLP) and the *School Breakfast Program* (SBP) have been established to promote and teach healthy practices to children at school.[6-8] Millions of students participate in these programs; almost 30 million students were served by the *National School Lunch Program* and more than 14 million students were served by the SBP each day in 2016.[9,10]

Breakfast consumption is an important component of determining a child's health status including obesity. In a study observing breakfast habits of children, Deshmukh-Taskar et al[11] indicated that children who skipped breakfast had higher body mass index, waist circumference, and prevalence of obesity than did those who ate breakfast.[11] Benefits specific to SBP have been identified and include reduced absenteeism, reduced body mass index, better academic performance, better psychosocial functioning, reduced hyperactivity, and improved nutrition.[12-14] Challenges to SBP include time constraints, social stigmatization, perceived lack of nutrition in breakfast meals, and increased monitoring needs of children.[15,16]

To take advantage of the benefits and overcome the challenges of SBP, several models of SBP service have been developed, including traditional breakfast service (served in the cafeteria before the first bell), *Breakfast in the Classroom* (BIC) (served to students in the classroom after the bell rings), grab and go breakfast (prepackaged breakfast items available to students in the cafeteria or on mobile carts in hallways), second chance breakfast (students eat breakfast during a

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morning break), and breakfast vending (breakfast items available in vending machines).[17] Teachers have an important role in many of these SBP models by serving breakfast in the classroom, monitoring the students during breakfast, or encouraging them to get breakfast in the cafeteria before class.[18,19] Teachers are also with students during most of the day and can serve as role models in dietary practices.[20,21] However, previous research regarding teacher perceptions of SBP is limited. Studies evaluated only 1 SBP model (BIC[22] and grab and go[23] or SBP in general[11,14]) and gathered perceptions of multiple stakeholders (school staff, parents, and students[22] and school nutrition directors and teachers[24]) rather than focusing solely on teacher perceptions.

The purpose of this study was to identify the perceptions of kindergarten through 12th-grade teachers in Utah concerning benefits, challenges, and preferences for SBP models. The specific objectives of the study were to (1) identify teacher perceptions of benefits, challenges, and preferences for each of the 5 SBP service models and (2) identify differences in teacher preferences for each of the 5 SBP service models based on the type of model currently being used.

METHODS

Participants and Recruitment

The sample for this study consisted of a convenience sample of kindergarten through 12-grade teachers from schools throughout the state of Utah. Utah was chosen because it has the lowest SBP participation in the nation, with only 34.8% of eligible students participating in 2014–2015.[25] To reach a broad sample of the population and simplify the contact and distribution process, the Utah Education Association (UEA) helped with recruitment of participants. The UEA is an organization focused on strengthening and improving public schools and the teaching profession in the state of Utah; teachers can join if they want to be involved.[26] The Utah Education Association forwarded an invitation flyer via e-mail to approximately 18,000–20,000 teachers throughout the state of Utah, inviting them to participate in the survey. It forwarded the flyer a second time 2 weeks after the initial e-mail invitation, and teachers had a total of 3 weeks to complete the survey. A total of 525 participants sent data. However, owing to missing data and incomplete surveys, only 369 were usable, for a response rate of approximately 1.85% to 2.05%. The researchers obtained permission for this study from the Institutional Review Board at Brigham Young University before recruitment of participants.

Instrument

The survey instrument was created using an online software program (Qualtrics, Provo, UT; 2005), to measure teachers' perceptions of SBP in Utah. Two survey instruments previously used for SBP research were employed as a reference for survey development.[27,28] Items regarding challenges and benefits of SBP and increasing SBP participation were adapted from these surveys.[27,28] To ensure face and content validity of the 33 question survey, a small pilot test was conducted according to the methods described by Dillman et al.[29] First, 3 school nutrition and SBP experts evaluated the instrument and provided written feedback. Regarding the survey content, experts suggested that a few items be added to some of the existing questions. Items added included *suburban* as an option for participants' schools, *mess/bugs/pests* as a concern for increasing SBP participation, and *social stigma* as a benefit or challenge, and the addition of an *other* option to some questions. They also provided comments regarding editorial corrections, the length of the survey, and clarification of questions. The survey instrument was then revised according to expert comments. The average congruency percentage among the 3 expert reviewers was calculated based on individual content questions (demographic questions were not included). The congruency percentage was 90.8%, which indicated content validity of the instrument.[30] A small pilot test was then conducted among 6 teachers in Utah. Teachers completed the survey as well as an evaluation form with questions regarding readability of questions, the time it took to respond, and suggestions for improving the questionnaire. Pilot test participants did not provide suggestions for improvement; therefore, no additional revisions were necessary.

The final survey instrument consisted of 33 questions covering several topics including teachers' perceptions of benefits and challenges of the SBP (10 questions), benefits and challenges of the 5 different SBP models (6 questions), preference for each SBP model (1 question using the scale in which −5 to −1 = do not prefer; 0 = neutral; and 1 to 5 = prefer), and basic school and participant demographics (16 questions). Participants were asked to identify benefits (9 items) and challenges (11 items) to SBP in general. They were then asked to use a slider scale to indicate whether they perceived 13 SBP factors as a challenge (−5 to −1) or benefit (1–5) for each of the 5 SBP models. If the slider was left in the 0 position of the scale, their perception of that item was considered neutral. This scale was chosen to simplify and shorten the survey. A modified informed consent form was included as the first page of the survey; completion of the survey indicated the participant's agreement to participate.

Data Analysis

The researchers analyzed data using Statistical Analysis Systems (version 9.4, SAS Inc., Cary, NC). Descriptive statistics, including frequencies, means, and percentages, were calculated for all survey questions. An ANOVA and Tukey–Kramer tests were performed to identify differences among teachers' preferences for each SBP model based on the model currently used at their school. To have sufficient numbers for comparisons between groups, grab and go, second chance, and breakfast vending were combined into 1 variable (other) for the ANOVA and Tukey–Kramer tests. Significant demographic variables were identified and then included in the model to control for possible confounding variables. To account for multiple comparison bias, the significance level of $P < .001$ was chosen.

RESULTS

The majority of participants were female (87.5%), aged 35–64 years