

School Nutrition Directors' and Teachers' Perceptions of the Advantages, Disadvantages, and Barriers to Participation in the School Breakfast Program

Laurel G. Lambert, PhD, RD, LD; Martha Raidl, PhD, RD, LD; Deborah H. Carr, PhD, RD, LD; SeAnne Safaii, PhD, RD; Diane K. Tidwell, PhD, RD, LD

ABSTRACT

Objectives

The objective of this research was to identify perceived advantages, disadvantages, and barriers to participation by elementary students in the School Breakfast Program (SBP) held by school nutrition directors (SNDs) and teachers.

Methods

Focus group discussions were used to identify perceptions held by SNDs and elementary teachers regarding the SBP. Researchers held discussions with one group of SNDs and one group of teachers from 3 states (Illinois, New Jersey, and Utah) identified as having low SBP participation.

Results

A positive eating environment and social interactions were the primary advantages identified by SND and teachers. Time issues/conflicting events and lack of school staff support were the primary disadvantages and barriers identified by SND. Teachers identified low nutritional value foods and poor quality foods being served in the SBP as primary disadvantages.

Applications

In addressing SBP participation in the elementary schools, efforts need to be made by SNDs and teachers to collaborate in implementing a SBP that will be supported by teachers, school staff, and administrators. Greater efforts need to be taken to educate teachers on nutritional requirements of SBP menus and allow teachers input in the foods offered in the SBP.

INTRODUCTION

Students who participate in the School Breakfast Program (SBP) perform better academically, have better school attendance, and have improved overall dietary intake than non-participating students (Murphy, Pagano, Nachmani, Sperling, Kane, & Kleinman, 1998; Rampersaud, Pereira, Girard, Adams, & Metz, 2005). Unfortunately, participation in the SBP continues to be low when compared to participation in the National School Lunch Program (NSLP). At the time of this study, the United States Department of Agriculture (USDA) reported that during the 2003-2004 school year, the NSLP served 28.4 million children daily (USDA, 2006a), whereas the SBP served 8.4 million (USDA, 2006b). During the school year 2005-2006, children served by the NSLP increased to 30.0 million daily and the SBP served 9.77 million. Statewide data from *The School Breakfast Scorecard: 2004, Fourteenth Annual Status Report on the School Breakfast*

Program showed low SBP participation nationwide and it was lowest in New Hampshire, Nebraska, Alaska, Illinois, Utah, New Jersey, and Wisconsin (Food Research and Action Center [FRAC], 2004).

Several studies have been directed at identifying students' perceived benefits and barriers to participating in the SBP (Dixit, Houser, & Sampson, 1999; Reddan, Wahlstrom, & Reicks, 2002). However, there are many issues affecting SBP participation beyond students' control. Short meal periods, unfavorable bus schedules, and social stigma have been identified as disadvantages and barriers to SBP participation (McDonnell, Probart, Weirich, Hartman, & Birkenshaw, 2004; Ragno, 1994). One of the primary stakeholders in the SBP is the school nutrition director (SND). The SND is the individual responsible for the implementation, maintenance, and financial viability of the program. However, only one recent investigation could be found that included SNDs' perceptions regarding school nutrition programs and student participation in the SBP (McDonnell et al. 2004). McDonnell et al. reported that SNDs expressed frustration regarding limited time for the breakfast meal period and pre-class events interfering with SBP participation. SNDs also identified positive interactions between school nutrition staff and students as contributing to higher school meal participation. The objectives of this study were to further investigate the perceived advantages, disadvantages, and barriers to participation by elementary students in the SBP held by SNDs and teachers in low participation states.

METHODOLOGY

Focus Groups

Following the guidelines of Krueger and Casey (2002), researchers used focus group methodology to meet the study objectives. During spring 2005, focus group discussions were conducted separately with SNDs and teachers in one school in each of the following states: Utah, New Jersey, and Illinois. These states were targeted due to low student participation in their SBP and their geographical location.

Recruitment of Participants

State Agency Child Nutrition Directors from the participating states were contacted to provide a list of SNDs as a potential pool for inclusion in focus group discussions. A city was selected in each state that would increase the chance of recruiting a minimum of 10 SNDs within an hour driving distance. Additionally, one SND from each state was asked to serve as the primary contact in assisting researchers in: 1) selecting elementary schools that participate in the school breakfast program with low student participation, 2) obtaining approval from principals to conduct focus group discussions, and 3) assisting in recruiting teachers for focus group discussions. The objective was to recruit ten teachers from each school. Teachers who agreed to participate completed and returned a consent form to school principals, who forwarded them to the researchers.

Focus Group Discussions

Seven focus group questions were developed by the researchers and pilot tested with four SNDs and 10 teachers who were then made ineligible to participate in this study. Three key questions were designed to elicit SNDs' and teachers' perceptions related to advantages, disadvantages,

and barriers to elementary student participation in the SBP. Prior to the beginning of each focus group discussion, participants completed a form to provide researchers with demographic information such as age, years of school employment, and education level. The same researcher moderated all focus group discussions, and they were audio recorded. An assistant moderator (researcher) recorded field notes to supplement the audio recordings. A professional transcriber transcribed all audio recordings. From these transcriptions, researchers independently identified similar responses from different participants to each question and then assigned each response to an appropriate theme. Duplicate statements by participants in the same focus group were counted only once. For example, if two participants from the same discussion group stated that the school breakfast program provided a “nutritious meal,” this statement was counted only once. Therefore, only differing statements were placed in themes and used for analysis, providing a measure of depth to the discussions.

Data Analysis

The qualitative data software program, Ethnograph™ (v5.0) assisted in organizing themes for each focus group question by counting the number of statements contributing to that theme. Themes that contained less than 5% of the statements were eliminated due to their minimal impact on the results. Two researchers independently coded the statements from three randomly selected transcripts into identified themes to establish inter-rater reliability agreement (Neuendorf, 2002). Agreement for coding of 70% or higher is considered reliable. The University of Mississippi Institutional Review Board approved this research.

RESULTS AND DISCUSSION

Selected Schools

Student meal participation data for the month of October 2004 is listed in Table 1. Utah had the highest percentage (10%) of breakfast meal participation per average daily attendance (ADA) followed by Illinois (9%) and New Jersey (2%).

Table 1			
Student Meal Participation Data from Participating Schools for October, 2004			
	Utah	New Jersey	Illinois
Number of students enrollment	530	601	625
Average daily student attendance	504	559	591
Number of days meals were served	21	20	19
Total breakfast meals served	1146	255	1020
Percent breakfast meal participation	10	2	9
Total lunch meals served	4260	5012	5056
Percent lunch meal participation	40	45	45

School Nutrition Directors

Twenty-seven SNDs were recruited to attend the focus group discussion and 24 (89%) participated. SNDs classified their school districts as urban (42%), suburban (42%), or rural (16%). Fifty-four percent of SNDs had been working in school foodservice for more than 10 years. Fifty-eight percent had college degrees and 54% were certified by the School Nutrition Association.

Teachers

All 31 teachers recruited by SNDs attended the focus group discussions. Demographic data showed that 29% of teachers had taught less than 10 years, 48% had taught between 11 and 20 years, and 23% had taught more than 20. The highest percentage (48%) of teachers taught first grade or second grade, and the remainder of the teachers were evenly distributed among third through sixth grades, gym teachers, and those teaching a split grade.

Inter-rater Agreement

Inter-rater reliability agreement was established between the two researchers for coding qualitative data into themes developed for advantages, disadvantages, and barriers to participating in the SBP. From three randomly selected transcripts agreements were 91% for advantages, 79% for disadvantages, and 75% for barriers. Agreement for coding above 70% is considered reliable.

Focus Group Questions, Themes, Coded Statements

Question 1, “*What are the advantages to students participating in your school’s breakfast program?*” resulted in six themes and 74 coded statements (Table 2, below) with the majority of statements (28) placed in the School Environment/Social theme. SNDs and teachers believed that the school breakfast meal is served in a pleasant setting with fewer distractions than during the school lunch period. Advantages of the SBP expressed by SND and teachers included: “*It gives a chance for the kids to see a warm heart and happy face with those lunch personnel,*” and “*You know it’s not an academic situation; they can just sit and socialize.*” Research has shown that a calm school meal environment facilitates increased interactions with school nutrition staff and opportunities for students to socialize with peers (McDonnell et al., 2004; Reddan et al., 2002).

Teachers contributed 12 of the 13 statements to the Parent Benefits theme. They believed that the advantages for parents whose children participated in the SBP were: less stress and having more time in the morning, convenience, and parents knowing that their child will be in a safe environment when eating breakfast at school. It has been shown that parents play an important role in the success of school meal participation rates. In lower elementary grades, the decision to eat a school meal is primarily made by the parent (Lambert, Conklin, & Johnson, 2002). Therefore, parents should be viewed by SNDs and teachers as one of the primary customers of the SBP. The many benefits that the SBP can provide parents and their children should be the key focus of a marketing program. For parents who are still reluctant in encouraging their children to participate daily in the SBP, the school breakfast can be marketed as a support program or second choice for parents on days when preparing breakfast at home is not an option. Parents whose children participate in the SBP have identified saving time in the morning and decreasing morning stress as reasons for participation in the SBP (Sampson, Meyers, Rogers, & Weitzman, 1991; Wahlstrom & Begalle, 1999).

In the Better Nutrition theme, SNDs and teachers agreed that students participating in the SBP received a more substantial meal than what they would receive at home. The statement such as “*...they have a balanced nutritional breakfast (at school) where at home they may not*” reflect their perceptions. Teachers primarily stated that the SBP provides better nutrition for students only if at home they are eating breakfast foods of low nutritional value or no breakfast at all. SNDs more specifically perceived the SBP as presenting better nutrition in terms of nutrients and variety of foods offered to students than they receive at home.

Schools participating in the SBP must serve breakfasts that conform to the applicable recommendations of the most recent Dietary Guidelines for Americans (USDA, 2005). In addition, breakfasts must provide, on average, a minimum of one-fourth the Daily Recommended Dietary Allowances for protein, iron, calcium, and vitamins A and C. Under the Traditional Food-Based Menu Planning Approach, schools must offer four food items from several food components (vegetables and/or fruits; milk; and two servings of meat/meat alternate, two servings of grains/breads OR one serving of each of these components). Minimum portion sizes have been established and are determined by age and grade groups (USDA, 2006c). It has been shown that students who eat school breakfast consume a more nutritionally sound breakfast than those who eat breakfast at home (Worobey & Worobey, 1999).

Under the Feeds Them theme, seven of the eight statements came from teachers. Statements such as, “*I think another advantage too, it’s better than nothing*” and “*It puts food in their stomachs*” were common. The last two themes were School Performance and Students’ Preferences. SNDs and teachers perceived improved academic performance and attendance as advantages of eating breakfast at school. Research on the benefits of improved academic performance and attendance from eating school breakfast has been well documented (Murphy et al., 1998; Rampersaud et al., 2005; Worobey, & Worobey, 1999). SNDs believed that students participating in the SBP preferred the types and variety of breakfast foods offered in the SBP when compared to what they received at home.

Table 2			
Advantages to School Breakfast Participation			
Theme	Statement count	Directors' total	Teachers' total
School Environment/social	28	14	14
Parent benefits	13	1	12
Better nutrition	12	5	7
Feeds them	7	1	6
School performance	7	4	3
Students' preference	6	5	1
Total	73	30	43
Note. Statement counts are listed in descending order.			

Question 2, “*What are the disadvantages to students for participating in the SBP?*” resulted in six themes and 48 statements (Table 3, below). The Time Issues/Conflicting Events theme included the largest number of statements (13). Disadvantages identified were: the early morning time schedule for the breakfast period, the limited amount of time allowed for students to eat, conflicting bus schedules, and students playing games before school do not allow students to participate in the SBP. Schools participating in this study scheduled breakfast before the school

day started. This required students participating in the SBP to arrive at school earlier than students who did not participate.

Attempts have been made at other schools to address these issues, with SNDs experimenting with non-traditional breakfast services such as in-classroom breakfast, “grab-n-go,” and Universal-Free School Breakfast (breakfast provided at no cost to all students) programs (Conklin & Bordi, 2003; Wahlstrom & Begalle, 1999). The “grab-n-go” service places breakfast food items in a paper bag and students just “grab” their breakfast on their way to class. For in-classroom breakfast service, breakfast foods are brought to the classroom by the nutrition staff. Research indicates that these services may reduce the social stigma and increase time for students to eat (Conklin & Bordi; FRAC, 2004).

Nine of the ten statements placed in the Low Nutritional Value theme came from teachers who considered the SBP foods to be high in sugar, carbohydrate, and fat, and have little nutritional substance. This perception among non-nutrition school staff is repeated in other studies regarding the SBP (Ragno, 1994). It may appear that teachers’ statements on the nutritional value of SBP as a disadvantage contradicts their statements on the nutritional value of the SBP as an advantage. However, teachers primarily regarded the SBP as providing a more nutritious breakfast for students who do not eat any breakfast.

The other theme regarding the SBP foods offered was the Meal Quality theme that included statements from teachers on breakfast meals having no variety, limited food choices, and foods the students would not eat. Teachers also believed that ‘cheap, no brand name’ foods were being purchased which are of poor quality. SNDs believed that breakfast menus may lack variety, but not nutritious foods. According to the SNDs, limited/inadequate kitchen facilities, kitchen equipment, and food budgets contributed to limited variety in breakfast menus.

The Social Stigma theme focused on perceptions that the SBP is primarily for low-income children. SNDs were concerned that these perceptions may be responsible for some students not participating in the SBP.

In the Parent Concerns theme, SNDs and teachers perceived parents to be concerned with the types of foods being served in the SBP and that those parents believe they can feed their children a more nutritious meal at home. The last theme, School Environment/Social, included statements such as “*their friends don’t eat school breakfast so they would have no one to talk to*” which may reflect that students who do not participate in the SBP prefer to associate with other students who do not participate.

Table 3			
Disadvantages of School Breakfast Participation			
Theme	Statement Count	Directors' Total	Teachers' Total
Time Issues/Conflicting Events	13	6	7
Low Nutritional Value	10	1	9
Poor Social Stigma	8	5	3
Meal Quality	7	3	4
Parent Concerns	6	3	3
School Environment/Social	4	1	3
Total	48	19	29
Note. Statement counts are listed in descending order.			

Question 3, “What are the barriers to students participating in the SBP?” resulted in six themes and 51 statements (Table 4, below). All statements (n = 12) in the School Staff Support theme came from SNDs. The SNDs identified challenges in implementing and operating a SBP particularly opposition from school principals, administration, teachers, and custodians. Typical statements were, “Until the mandate came, there was no way I was going to push a breakfast program without the cooperation from the principal and the staff,” and “I would say an active discouragement (to participate in the SBP).” Support on various levels has come from federal and state agencies in the form of program mandates and policy changes (FRAC, 2005). Changes such as passage of the Child Nutrition and WIC Reauthorization Act (2004) has brought to the forefront the importance of the school nutrition environment, especially school meals, in supporting the health, well-being, and education of students.

The Time Issues/Conflicting Events theme identified inadequate time for students to eat during the meal period; inability to arrive at school during the scheduled breakfast period; and busses scheduled to bring students to school only minutes before the school day began. The Parent

Influence theme included statements regarding parents not knowing about the SBP, wanting their children to eat breakfast at home so they know what he/she eats, and believing that their children were not allowed to participate. Additionally, it was expressed that some parents oppose the SBP because they believe it is their role and responsibility to provide breakfast at home.

Seven of the eight statements in the Social Stigma theme came from teachers who provided various reasons why “social stigma” was a barrier to participation in the SBP. Teachers stated, *“The association with the misconception that it’s only for low income,”* and *“Some kids are just embarrassed to say that they didn’t have breakfast at home.”* The Students’ Preferences theme contained statements of students preferring to sleep later in the morning instead of arriving early to eat school breakfast, not caring for the food items offered, and their friends not participating in the SBP. The theme, Financial, included three statements regarding the financial situation of families and that the qualifying income for free and reduced-price meals was too restrictive.

Table 4			
Barriers to School Breakfast Participation			
Theme	Statement Count	Directors' Total	Teachers' Total
School Staff Support	12	12	0
Time Issues/ Conflicting Events	11	7	4
Parent Influence	9	3	6
Stigma	8	1	7
Students' Preferences	8	5	3
Financial	3	2	1
Total	51	30	21
Note. Statement counts are listed in descending order.			

CONCLUSIONS

Focus group discussions were used to identify the perceptions of SNDs and elementary teachers towards students participating in the SBP. Overall, directors and teachers perceived advantages of the SBP to students to be a nutritious meal that they like, a safe and social environment in which to eat, and a meal that contributes to their academic performance. However, teachers provided more in-depth statements than directors on the advantages to parents when their children participate in the SBP. Teachers could be a strong advocate in supporting and providing parent information on the SBP.

SNDs identified disadvantages and barriers of the SBP to be an inadequate amount of time allowed for the breakfast meal period, school events and bus schedules conflicting with the SBP, and lack of support and discouragement by various school staff members in offering the SBP. In the face of these challenges, directors find themselves in a difficult position in addressing disadvantages and barriers identified in order to increase SBP participation.

Teachers perceived disadvantages and barriers to participation in the SBP differently than directors. They viewed the SBP as offering low nutritional value and poor quality foods; incurring a social stigma when participating, and contributing to tardiness in first period class.

Many of the advantages, disadvantages, and barriers to SBP participation identified in this study have been manifested over the last decade (Dixit et al., 1999; McDonnell et al., 2004; Ragno, 1994). Federal, state, and local efforts to increase participation of low-income students in the SBP have shown some success with an 8.7% increase in participation over the last two years (FRAC, 2006). However, even with the increase in SBP participation, there are still less than half of free and reduced-price eligible students participating (FRAC, 2006). Therefore, many low-income children are missing the benefits the SBP offers them. Additionally, it seems that perceptions regarding the advantages, disadvantages, and barriers to SBP participation have not significantly changed. This indicates that new approaches to increasing SBP participation must be investigated and tested.

Changes that are most promising in addressing various aspects of SBP participation are the Universal-Free Breakfast, in-classroom breakfast, and "grab-n-go" programs. Participation in the SBP has shown to improve when students eat breakfast in the classroom (Conklin & Bordi, 2003) or are provided Universal-Free Breakfast service (Wahlstrom & Begalle, 1999). Additionally, the stigma associated with these breakfast services is decreased. When interviewed, teachers have supported the in-classroom breakfast programs. It was shown that class time allowed for students to eat breakfast did not interfere with instructional time. This also provides an opportunity for teachers to discuss different breakfast and nutritional topics. There may be an additional benefit in securing teachers' support for the type of SBP implemented. Higher student participation in school meals has been observed in classes where teachers have a positive view of the school meal program (Perkins, Roach, & Vaden, 1980).

Today's school environment has provided an opening SNDs need to gain support from the school community to improve the SBP service and assure access to all students. Efforts should

be made among school administration, SNDs and their nutrition staff, teachers, and parents to collaborate and develop a SBP that facilitates participation by reducing disadvantages and removing barriers identified in this research. SNDs need to stress to school administrators the insufficiency of kitchens and kitchen equipment in facilitating a high quality SBP. SNDs cannot rely on school administration to finance all capital equipment improvements to their kitchens. They should seek outside financial support and assistance from food and equipment companies in updating their kitchen facilities and equipment.

Finally, teachers' perception that foods of low nutritional value and poor quality are being served in the SBP need to be addressed. Some strategies might consist of:

1. selecting teacher representatives to act as liaisons between teachers and school foodservice staff to improve communication between the two groups,
2. involving teacher representatives in some aspects of meal planning to serve as an avenue in educating teachers on the nutritional and funding requirements for school meals,
3. including teachers in a new or already existing school nutrition advisory council,
4. pursuing creative marketing strategies designed to improve teachers' awareness of foods offered in the SBP and the meal's nutritional content,
5. establishing a strong relationship with each school's Parent/Teacher Association in efforts to educate and gain support with regards to the SBP and,
6. bringing in food distributors/marketers for taste test with school staff/students.

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BIOGRAPHY

Lambert is assistant professor for The University of Mississippi, Family and Consumer Sciences Department in University, MS. **Raidl** is Extension Nutrition Education Specialist at the University of Idaho in Boise, ID. **Carr** is director of NFSMI, Applied Research Division, at the University of Southern Mississippi in Hattiesburg, MS. **Safaii** is with the Center for Health Professions at Boise State University in Boise, ID. **Tidwell** is associate professor for Mississippi State University, Food Science, Nutrition, and Health Promotion Department in Mississippi State, MS.