

## Short Communication

# Engaging Head Start Teachers on Wellness Policy Implementation to Improve the Nutrition and Physical Activity Environment in Head Start Classrooms: A Qualitative Study of the Children's Healthy Living Program (CHL) in Hawai'i

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## Keywords

- Childhood obesity prevention
- Preschool policy
- Qualitative
- Focus groups
- Community based participatory research

## Abstract

Child care center policies have the potential to contribute to childhood obesity prevention. Policies at these centers vary by state and funding agency and barriers to implementation decreases compliance. The objective of this study was to engage Head Start (HS) teachers to inform a preschool wellness policy intervention for childhood obesity prevention. Two focus groups on preschool wellness policy were composed of HS teachers from two previously randomized communities. Focus groups were facilitated by one researcher and took place in May 2014 in Hawai'i. Sixteen teachers participated in one of two focus groups (n=6 and n=10) and were asked to give recommendations for policies to support childhood obesity prevention in their classrooms. Audio recordings were transcribed verbatim. Three researchers identified themes following an inductive method. Teachers 1) valued being a positive influence on the development of children, 2) saw that policy supported a safe classroom environment and encouraged consistent role modeling, and 3) saw gaps in resources as a barrier to promoting health. Policies are needed that facilitate teachers being role models of health and teachers' efficacy in addressing nutrition with parents through training and technical assistance. The necessity of a Registered Dietitian Nutritionist was identified to support these efforts. Findings informed policy changes for an intervention study.

## ABBREVIATIONS

CCC: Childcare centers; HS: Head Start; CACFP: Child and Adult Care Food Program; PA: Physical Activity; NAPSACC: Nutrition and Physical Activity Self-Assessment for Child-Care; CBPR: Community based participatory research; CHL: Children's Healthy Living Program for remote underserved minority populations in the Pacific; WIC: Special Supplemental Nutrition Program for Women, Infants and Children; RDN: Registered Dietitian Nutritionist; BMI: Body Mass Index

## INTRODUCTION

Increases in the prevalence of obesity and associated diseases in the past decade have increased the need for innovative and multi-level interventions to prevent obesity at an early age [1].

Ages three to five years are a sensitive time when a child's eating preferences and risk for future obesity can be shaped. Childcare centers (CCC), where approximately 60% of US children in this age group spend 22.5 hours or more per week, are suggested to be an area where childhood obesity prevention efforts can focus [2].

Head Start (HS) is a US federally funded preschool program, serving low-income children ages three to five years that participates in the Child and Adult Care food Program (CACFP) [3]. In compliance with HS Performance Standards and CACFP regulations, children at these centers are provided meals and snacks that provide from one-half to two-thirds of their daily nutritional needs and centers must follow additional policies related to nutrition requirements for foods and beverages served,

the mealtime environment and staff behaviors at meal times [4]. An obesogenic environment is one that creates an energy imbalance that can contribute to obesity through policy, food availability, access to physical activity (PA), social and cultural norms, and knowledge about nutrition and PA [5]. Because many child PA and eating habits are developed during the preschool years, the obesogenic CCC environment can have lifelong implications for obesity risk as children receive the majority of their daily nutritional needs and spend the majority of their waking hours in these environments. Policies in CCCs that support a healthy energy balance, where access to healthy and nutritious foods and PA are promoted and sedentary behaviors are minimized have been found to vary greatly between states and by funding agencies. The Institute of Medicine and other bodies make policy level recommendations for obesity prevention in child care and Head Start settings which include supporting fruit and vegetable availability and intake, setting minimum levels of daily physical activity, limiting the marketing of unhealthy food, limiting screen time and sedentary behavior, promoting adequate sleep and monitoring child growth [6-7]. Policy interventions that include these components have shown positive effects on childhood obesity through improving the nutrition and PA environment at participating centers [8-12]. However, a lack of resources, child dislike for healthy foods, insufficient training and technical assistance for center staff, and staff beliefs are previously cited barriers to implementing policies that can prevent obesity and promote healthy environments in child care centers [13-17]. In particular, HS teachers' and CCC providers' beliefs and attitudes have been found to create barriers to obesity prevention efforts and influence obesity prevention practices in centers [14,16]. Thus, CCC providers and HS teachers have been recognized as potential facilitators for policy and environmental changes focused on childhood obesity prevention, though they may need additional support.

A collaborative approach may help to bridge the gap between CCC policy and classroom practice to improve effectiveness of interventions. Positive, dose-dependent results on child outcomes such as television viewing and fruit and vegetable consumption have resulted from past parent-researcher intervention collaborations [18]. Child care provider participation in intervention planning has been tested in a policy intervention with some success and teacher engagement in the research process has improved teacher efficacy and facilitated teacher empowerment to promote healthy eating behaviors [19-21]. Interventions following a community based participatory research (CBPR) model, including teacher-researcher collaboration, may also empower teachers and, thus, improve compliance with policy interventions, but more evidence is needed.

The purpose of this qualitative study was to engage HS teachers to answer the following research questions: 1) what are HS teachers' recommendations for policy change to improve nutrition and physical activity promotion in the HS classrooms? and 2) what are HS teacher strategies for implementing new and improving compliance with existing policies for promoting nutrition and physical activity in the HS classrooms?

## MATERIALS AND METHODS

### Participants and recruitment

HS teachers from two communities that were selected for the Children's Healthy Living in Remote Underserved Minority populations of the Pacific (CHL) randomized controlled trial were the target population for this qualitative study [22]. Approximately 60 HS teachers from 29 classrooms in these two communities in Hawai'i were invited to participate in a focus group held at a school within their respective geographic cluster. Teachers were invited to one of the two focus groups in various ways including via email from the researcher and/or area manager, announcements at their monthly meetings, by telephone contact from the researcher, and/or in-person from the researcher.

HS teachers provided informed consent prior to the focus groups. Snacks and a \$10 gift card were provided to participants. The project was approved by the University of Hawai'i Institute Review Board Human Studies Program.

### Procedures

Focus groups were held in HS preschool classrooms and were moderated by one researcher with only HS teachers present, at times and locations convenient to participating teachers. HS teachers were encouraged to share their thoughts and opinions freely, managers and other superiors were not present at the focus group. Audio recordings were taken of each focus group. Each session was between 60 and 90 minutes long. Questions were aimed at identifying teachers' strategies for policy change to improve nutrition, physical activity and health promotion within HS, as well as their perceived role in promoting nutrition and physical activity in the classroom and among HS children (See Table 1).

### Data Analysis

Audio recordings were transcribed verbatim by one researcher. Focus group transcripts were given to three independent researchers with varying experience in focus group analysis (none to expert). Researchers were asked to review both focus group transcripts and identify themes present in both, following an inductive method where preconceived codes were not provided [23]. Some criteria for identifying themes were provided to researchers, including the frequency of statements or comments, specificity of responses, emotion noted from respondents, and extensiveness or the number of times different participants made a similar comment [23]. Researcher's themes were synthesized by one researcher and transcripts were then coded for each theme to identify specific quotations and underlying ideas within each theme.

## RESULTS AND DISCUSSION

Of the 60 teachers invited, 16 HS teachers in Hawai'i participated in two focus groups between April and May 2013. Three main themes emerged from the focus groups and are described below.

**Table 1:** Focus Group Questions/Guide for Head Start (HS) teachers on preschool wellness policy to improve the nutrition and physical activity environment in HS classrooms in Hawai'i.

1. What is your favorite thing about being a preschool teacher?
2. As a preschool teacher, describe how you help keiki (children) to develop healthy eating and physical activity habits?
3. What is a "policy" to you?
4. What are helpful policies that you can think of?
5. If you were going to make one policy change to your classroom that would help promote nutrition, healthy eating or physical activity what would it be?
a. What would stop you from making this change?
b. What steps do you envision would be necessary to make these changes?
6. Proposed wellness policies include changing the types of foods served, how food is served, parent trainings and teacher trainings on healthy eating, proper child feeding and overall personal wellness.
a. How hard or easy do you think these changes would be?
b. What could make them easier?
c. What specific suggestions do you have for these?

### Theme 1: Teachers value being a positive influence and enjoy witnessing growth and development of children

Fifteen of the 16 teachers stated that being a positive influence on the growth and development of children was their favorite thing about being a preschool teacher and most enjoyed witnessing how children grew confident and independent over the course of the program year.

Roughly two-thirds of teachers also identified themselves as role models for promoting the growth and development of children. Most teachers voiced pride in their ability to role model healthy eating at meal times by eating and drinking the same foods served to the children as well as by drinking water throughout the day and recognized the value of their participation in physical activity to role model and encourage child participation.

### Theme 2: Teachers saw policies as guidelines that could support a safe classroom environment and encourage role modeling of consistent messages to children and families in the program

Teachers shared that particularly helpful policies were ones that supported a safe classroom environment. One specific nutrition policy that many teachers appreciated was the restriction of outside foods in their classrooms. Teachers shared that despite their personal feelings about restricting outside foods in the classroom, they all had to follow the same policy and that it empowered them to restrict unhealthy foods in their classrooms.

With regard to policies on foods and beverages served in the classroom, most teachers recognized that HS policies encourage the expansion of children's food preferences that may positively impact their willingness to try different foods. The teachers recognized that children in their classrooms come from low-income families with sometimes limited access to foods, thus, the HS policy facilitated children having the experience of trying these foods.

### Theme 3: Teachers identified gaps in resources and professional support as barriers to strengthening the program's impact on eating and physical activity habits of children and their families

Most teachers mentioned a lack of resources and professional support as barriers to increasing their impact on healthy eating and physical activity habits of children and their families. While teachers were encouraged by their programs to implement a curriculum for promoting health and gross motor movement development these activities required more support to obtain program funds for purchasing supplies. The use of personal funds was often practiced for nutrition activities and food demonstrations but this limited the frequency of such activities.

A lack of professional support in the form of a dietitian, such as a Registered Dietitian Nutritionist (RDN), was also reported as a barrier in sharing child growth assessments or body mass index (BMI) with parents. In one focus group all teachers shared frustration with having to address childhood overweight and obesity concerns with parents of children with an elevated Body Mass Index (BMI) in the previous program year. Teachers expressed that they were not comfortable with, trained, or skilled in assessing a child's BMI, sharing BMI information with a parent or guardian, or counseling a parent on how to improve their child's BMI. Teachers also identified other ways that an RDN could support the program, including educating parents on healthy eating with trainings and newsletters, and providing teachers with support in planning and delivering classroom nutrition activities.

Literature suggests a collaborative approach to intervention planning can yield improved outcomes [18-21]. The involvement of HS teachers in intervention planning through these focus groups was done for two main reasons 1) to draw upon the specialized experience and expertise that HS teachers hold with regards to classroom policy and practice and 2) to increase teacher buy-in during intervention.

Data from these focus groups demonstrated that teachers place a high value on how they can role model healthy eating and PA habits to children and families. Previous qualitative studies have shown similar results, where HS teachers feel empowered to mold the eating habits of children and be responsible for promoting healthy eating for young children [21,24]. The findings from these focus groups underscore the motivation and the joy that teachers feel for facilitating the development of healthy eating habits, as well as their recognition of the benefits of policies in supporting their role in this process. Further, teacher role modeling has demonstrated an effect on child dietary intake [25]. Together the themes from this study support the inclusion of preschool teachers in policy level intervention planning, as an opportunity for empowerment, ownership and possibly facilitating greater compliance with policy changes.

HS teachers voiced the need for support from a nutrition professional, such as an RDN, for addressing healthy eating, weight and nutrition. This is in-line with the Academy of Nutrition and Dietetics' position on the role of RDNs in health promotion, where RDNs are recognized as leaders in providing preventive health services in community nutrition [26]. In another qualitative study on the barriers and supports to implementing changes in nutrition practices, child care directors found that training and technical assistance from an RDN was invaluable in improving these practices in their centers [25]. In other areas of CCC policy and practices, research on health and safety in centers has found that CCCs with access to health consultations, up to 20 visits per center per year, had improved compliance with health and safety policies and practices [28]. Together the previous and the current findings support the benefit and necessity of subject matter professionals to support implementing new policies and practices in CCCs.

HS teachers felt uncomfortable communicating BMI and nutrition-related information to parents of overweight and obese children. Implementation of employee worksite wellness initiatives to address barriers related to staff perceptions about obesity have been shown to improve staff ability to serve as role models of healthy behaviors [24]. Specifically, one study showed that by improving the eating and PA habits of HS teachers there was an increased the teachers' comfort with addressing similar topics with parents of HS children [29].

Limitations from the current study include a low recruitment rate, limited generalizability to HS classrooms, and unlikely saturation of themes. While only 16 of the 60 (6 of 30 in one community and 10 of 30 in another) HS teachers participated in the focus groups, it is possible that these teachers were particularly motivated or held strong beliefs regarding policy, nutrition, and/or obesity prevention. Secondly, generalization of these findings could be limited to only HS classrooms in the participating HS agencies. Lastly, with only two focus groups it is unlikely that saturation of themes was met. Continued input should be sought for further development and assessment of policy needs. The strengths of this study do outweigh its limitations. The implications of these findings may support the inclusion of HS teachers in future policy planning for optimized implementation. This study is one of the first to qualitatively identify HS teachers' beliefs surrounding their role in obesity prevention efforts with the intention of informing a future policy intervention. The knowledge gained from this study will help to overcome barriers to implementing policies that are meant to promote healthy eating and PA that minimize the obesogenicity of the CCC environment.

## CONCLUSION

The findings from this qualitative study helped to form a

**Table 2:** Potential Policy Intervention Areas as Related to the Three Focus Group Themes Identified from Engaging Head Start (HS) Teachers on Wellness Policy Implementation to Improve the Nutrition and Physical Activity (PA) Environment in HS Classrooms in Hawai'i.

Policy Intervention Area	Intervention Activities	Focus Group Theme
Integration of Nutrition Promotion	Incorporate nutrition and PA promotion at regular monthly HS meetings Examples: 1) Provide nutrition & PA related materials for classroom activities, family newsletters, & employee wellness activities 2) Provide HS staff and teachers with trainings on nutrition & health topics	Theme 1: Supports teachers' ability to be positive influence on child Theme 2: Support teacher role modeling Theme 3: Provide classroom resources
Employee Wellness	Deliver employee wellness activities that coincide with HS classroom nutrition & PA activities at monthly meetings	Theme 1: Supports teachers' ability to be positive influence on child Theme 2: Support teacher role modeling
Foods and Beverages Served	Create nutrition standards above Child and Adult Care Food Program (CACFP) to improve the dietary quality of foods and beverages served Examples: 1) Limit the frequency of offering 100% fruit juice to increase availability of fruit 2) Limit high energy, low nutrient menu items, such as fried noodles and potatoes	Theme 1: Supports program's positive influence on child by offering fruit and other nutrient dense foods. Theme 2: Support teacher role modeling as teachers consume the same foods and beverages as children.
Community Partnerships	Actively pursue partnerships to ensure sustainability of monthly activities Examples: 1) Local farmers for vegetables for employee taste testing 2) Local health centers/professionals to provide information about PA 3) Meal vendors provide nutrition training and education	Theme 3: Addressing gaps in resources to nutrition and health promotion

HS policy intervention study that aimed at reducing childhood obesity [30]. The intervention included integration of nutrition promotion, employee wellness, foods and beverages served, and community partnerships to develop an intervention. Implications from these focus group findings are listed below as they relate to future intervention development and policy changes. Table (2) outlines the policy intervention areas as they relate to the three focus group themes that emerged.

The implemented study built upon these focus group findings and targeted HS teachers as the facilitators of positive change in the CCC settings. Teachers' desire to be positive role models was leveraged through employee wellness activities that mirrored classroom activities related to promoting fruit and vegetable intake and PA [30]. The policy implementation intervention was significantly more successful at promoting PA in classrooms where teachers were also making positive changes to their own PA levels [31]. The collaborative approach to intervention planning and implementation which began with this qualitative study, led to a successful policy intervention. These findings demonstrate the key role that HS teachers play in obesity prevention in classroom settings and support their inclusion in informing policy change and facilitating policy compliance.

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