School Food Policies and Practices for Young Children in Primary Schools

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ABSTRACT

The objective of this paper was to assess the extent and nature of healthy eating policies and practices for preschool children in public schools before instituting an intervention to promote healthier eating. The research study was conducted in 47 public primary schools in Phrae Province, Thailand. A questionnaire designed to identify school-children eating practices and school policies were used to interview principals and preschool teachers. In addition, observed information about healthy eating policies in the schools were gathered during the interviews. Prevalence of specific policies and practices in the schools was examined by descriptive statistics. The healthy eating policies implemented by the schools were categorised into four groups: "fully in place", "partially in place", "currently under development" and "not in place". Concerning the school environment, "fully in place" healthy eating policy schools had the following issues implemented: offer sugarless milk to preschool children; provide students enough time to eat lunch in clean, safe and pleasant environment; have all teachers schedule time for students to wash their hands before meals and snacks; and a policy to establish links with nutritional counsellor. Regarding the curriculum, all schools had a policy to help students learn specific nutrition-related skills. All schools encouraged and involved staff, children family members and the community in supporting and reinforcing healthy eating policy. The results showed that although most schools were concerned about healthy eating policy, many policies had not been fully implemented. Therefore, a practical model for schools to implement healthy eating practices is still needed.

Key words: Healthy eating, Policies, Schools, Preschool children, Thailand

INTRODUCTION

Schools are an important educational, social and physical environment for children. Thus, changes in the school's environment can have an important impact on students' health. Food is very important for the health of young children. However, young children cannot easily select appropriate food by themselves. Health-related behaviours are significantly

determined by the social environment in which people live and work (Sheiham and Watt, 2000). Therefore, healthy eating practices during childhood will help children develop life-long habits.

Health promotion, based on the Ottawa Charter, proposes many actions to use to promote health (World Health Organization, 1986). One of those actions is building public health policy. Any public health policy influences people's health and quality of life (Jones, et al., 2002). Before using the 'Ottawa approach', the health promoter needs to understand and assess the existing policies and practices.

Most Thai students attend public schools. Thai public schools are divided into 8 classes: 2 preschool classes and 6 primary classes. Therefore, children spend most of the day in school and live and learn there. No data are available on the extent and nature of healthy eating policies and practices for preschool children in public schools. We aimed to evaluate a healthy eating policy for preschool children. It was necessary to assess the existing healthy eating policies and practices for preschool children as a basis for developing future policies in a subsequent phase of the research. This study was the first phase and concentrated only on data from the schools. The objective was to assess the extent and nature of healthy eating policies and practices for preschool children in public schools in Amphur Muaeng, Phrae Province, Northern Thailand.

MATERIALS AND METHODS

The study was conducted in 47 of the public primary schools in Amphur Muaeng, Phrae Province, Northern Thailand. The schools were selected because they met the following inclusion criteria: preschool children aged 4-5 years old attending school; schools located in villages with easy access to other communities; schools with similar community lifestyles; and, schools with staff willing and able to participate completely throughout the action part of the research.

A questionnaire was developed by using the health-promoting school concept and information from the literature and information elicited from previous studies and guidelines (World Health Organization, 1997, 2002; Department of Health, 1998, 2002; Technical Assistance & Training Center, Undated). The questionnaire included topics grouped in three dimensions relating to healthy eating activities: (a) policy and environment, (b) curriculum and instruction and (c) staff, family and community involvement. The questionnaire was reviewed for its content validity by two professors from the dental school and one educational supervisor and was piloted in 8 schools which had the same characteristics as the sample schools. The respondents in the pilot schools were encouraged to discuss issues related to the features of the questionnaire, its complexity and understanding. The revised questionnaire was used in this study. For reliability of observers, kappa statistic of the inter-observer was 0.70 and kappa of the intra-observers were 0.62, 0.68 (K.W and V.K, respectively).

Forty-seven preschool teachers and 47 principals were interviewed by two researchers using the questionnaire. In addition, general information regarding healthy eating policy implementations, (e.g. guidelines, physical environment, curriculum and community's involvement in the school) was collected by means of observation during the interview period at each school. All of this information was used to assure validity of the subjects' responses to

the questionnaire.

Statistical analysis

Descriptive statistics were used to examine the prevalence of specific policies and practices.

RESULTS

The dimensions of healthy eating activities were presented in three categories: schools' food policy and environment, curriculum and instruction regarding nutrition and food, and involvement of staff, family and community.

Schools' food policy and environment

Table 1 shows the existing healthy eating policies implemented by the schools. The existing policies were grouped as: (1) "fully in place", (2) "partially in place", (3) "currently under development" and (4) "not in place". Of the total of 47 schools, 27 (57.4%) were in the "fully in place" category. They had written school health policies which provided a comprehensive programme of health education designed to promote healthy eating, made food without added sugar, available wherever food was served inside and outside the canteen, and established collaborations among parents, teachers and school board members.

Concerning the environment, existing implemented healthy eating policies which all schools (100%) in the "fully in place" category had implemented were: a policy to offer sugarless milk for preschool children; a policy to allow all students to have enough time to eat lunch in a clean, safe and pleasant environment; a policy to have all teachers schedule time for students to wash their hands before meals and snacks; and a policy to establish links with professionals who can provide counselling on nutritional problems. Furthermore, most schools offered healthy drinks and discouraged the availability of carbonated drinks (85.1%). They also offered healthy snacks and discouraged snacks with added sugar for school meals or break meals (83.0%). However, a few schools (17.0%) had guidelines for healthy eating. Only 6.4 percent of the schools stated that the school cooks had guidelines for healthy eating.

Table 1. The existing school food policies implemented in public schools in Amphur Muaeng, Phrae Province, Thailand.

Topics	% of schools (n)			
	Fully in place	Partially in place	Currently under development	Not in place
Policy and Environment				
1. School has written school healthy eating policies.	57.4 927)	36.2 (17)	6.4 (3)	0
2. School offers healthy food and discourages food added sugar.	17.0 (8)	78.8 (37)	2.1 (1)	2.1 (1)
3. School offers healthy drink.	85.1 (40)	12.8 (6)	0	2.1 (1)
4. School offers healthy snack.	83.0 (39)	12.8 (6)	0	4.2 (2)
5. School offers sugarless milk.	100 (47)	0	0	0

Topics	% of schools (n)			
	Fully in place	Partially in place	Currently under development	Not in place
6. School has guideline for healthy eating in preschool children.	17.0 (8)	8.5 (4)	0	74.5 (35)
7. School cooks have guideline for healthy eating in preschool children.	6.4 (3)	0	0	93.6 (44)
8. School provides and promotes healthy eating choices through the services of school canteen or tuck shop.	53.2 (25)	44.7 (21)	0	2.1 (1)
9. All students have time to eat lunch in clean, safe and pleasant environment.	100 (47)	0	0	0
10. All teachers schedule time for students to wash their hands before meals and snacks.	100 (47)	0	0	0
11. School has established links with professionals who can provide counselling for nutritional problems.	100 (47)	0	0	0

Curriculum and instruction regarding nutrition and food for preschool children

All schools (100%) helped students learn specific nutrition-related skills, such as how to recognise healthy meals (Table 2). Moreover, 66.0% of schools provided a nutrition education activity that was fun, participatory, developmentally appropriate and culturally relevant. Only 44.7% of schools emphasised the positive aspects of healthy eating and the harmful effects of unhealthy eating.

Table 2. The existing school food and nutrition curricula for preschool children.

Topics	% of schools (n)			
	Fully in place	Partially in place	Currently under development	Not in place
1. School helps students learn specific nutrition-related skills.	100 (47)	0	0	0
2. School provides nutrition education activities that are fun, participatory, developmentally-appropriate and culturally-relevant.	66.0 (31)	34.0 (16)	0	0
3. School emphasises the positive, appealing aspects of healthy eating rather than the harmful effects of unhealthy eating.	44.7 (21)	55.3 (26)	0	0

Staff, family and community involvement

All schools (100%) encouraged and involved family members and the community in supporting and reinforcing a healthy eating policy (Table 3). Less than 60% of schools involved family members or the community in supporting and reinforcing nutrition education (55.3% and 51.1% respectively).

Table 3. The involvement of staff, family and community in nutrition education and food policies in schools

Topics	% of schools (n)			
	Fully in place	Partially in place	Currently under development	Not in place
Staff, Family and Community Involvement				
1. School encourages and involves family members in supporting and reinforcing nutrition education.	55.3 (19)	4.3 (2)	0	40.4 (19)
2. School encourages and involves the community in supporting and reinforcing nutrition education.	51.0 (24)	0	0	49.0 (23)
3. School encourages and involves family members in supporting and reinforcing healthy eating policy.	100 (47)	0	0	0
4. School encourages and involves the community in supporting and reinforcing healthy eating policy.	100 (47)	0	0	0

DISCUSSION

Children spend most of the day living and learning in school. In addition, preschool children are ready to learn, change and try new things when they are together (Robertson, 2003). Thus, good food policies are important to the overall well-being and development of children. In this study, almost all schools implemented policies regarding healthy eating practices. However, only one-tenth of the schools had guidelines on healthy eating for preschool children. Very young children are not able to select appropriate food by themselves but adequate nutrition and food is necessary to maintain overall health and growth. Food or nutritional guidelines for good health have been established to achieve good health (Robertson, 2003). Therefore, healthy eating guidelines are needed in schools. Every school in Thailand has to follow the government regulations. All of the schools in our study did offer sugarless milk for children. This policy complies with the government policy which has advocated sugarless instead of flavoured milk or milk with sugar added (Ungchusak, 2004).

In addition, Thai professionals such as dentists, paediatricians and nutritionists have established "Advocacy Network Targeting Sweet Tooth Habits Kids" network since 2002 to discourage children from eating sweetened foods and snacks (Anon, Undated). In this study, only half of the schools were concerned about school meals with added sugar. The reason given for this by school cooks was their belief that sweetness of foods made children eat more. The finding that there were guidelines for healthy eating school cooks in only 6.4 percent of the schools is worrying, as they devise the recipes. Unless they are convinced about the health aspects of their menus, they will perpetuate incorrect practices. The sugar consumption in Thai people has increased threefold in the last ten years. Thus, it is essential for teachers and school cooks to realise that eating sweetened foods might lead to habituation in later years. Without excessive exposure to sugars in the early years of life, increasing consumption as they grow up may not occur (Trahms, 1997). It is apparent that education of school staffs is needed and nutritional and food guidelines should be established to help plan adequate nutrition in menu selection (Robertson, 2003).

School practices, such as providing and advertising healthy eating choices through the services of the school canteen or tuck shops, were found in more than half of the schools assessed (53.2%). This finding was much higher than the 20.2% of secondary school cafeterias in Minnesota (French, et al., 2002). The Thai government has had many health promotion projects and usually use posters as a tool to promote health. However, preschool children cannot read or understand language well. Therefore, a more appropriate curriculum for preschool children is desirable.

One-third of schools with curricula "partially in place" provided nutritional activities that were fun, participatory, developmentally-appropriate and culturally-relevant. Activities that are enjoyable allows children to try new food and empower them with the knowledge (Robertson, 2003). It is also essential for teachers to emphasize the positive aspects of healthy eating because establishing positive environments allows children to develop good behaviours and positive attitudes to foods (Robertson, 2003).

Fewer than 60 per cent of schools involved the families and communities in supporting nutrition education. This issue is of concern because parent and community involvement is a necessary component of a school health programme (Davis and Allensworth, 1994; Daley, 1999). Such involvement is important in developing healthy eating habits in young children (Trahms, 1997). If families and community participate in nutrition education, they can monitor students' progress at school as well as at home.

The results revealed that most of the schools did have some aspects of a healthy eating policy. However, these policies have not been fully implemented. Therefore, there is a need to develop a health-promotion model to encourage all schools to take more action on healthy eating issue at the policy level.

This study concentrated only on data from the schools. Further descriptive research is needed to study how parents and the community can be involved in school healthy food policies.

CONCLUSION

This study was set out to assess the extent and nature of healthy eating policies and practices for preschool children in public schools in Amphur Muaeng, Phrae Province in Northern Thailand. Whereas many schools were concerned and had implemented some aspects of health food policies, there were a fair number that had not. A proper food policy for preschool children needs to be designed and implemented because it is important for children's overall well-being and development.

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