
Stakeholder support for school food policy expansions

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Abstract

The aim of this study was to assess the extent to which parents and school-based stakeholders (principals, teachers, canteen managers and Parents & Citizen Committee presidents) are supportive of potential expansions to a new school food policy. Eight additional policy components elicited in preliminary focus groups with parents and 19 additional policy components elicited from interviews with school stakeholders (including the eight also elicited from parents) were presented to 1200 parents and 607 school stakeholders, respectively. Each of the 8 potential policy components presented to parents was supported by more than two-thirds of parents, and 13 of the 19 policy components presented to school stakeholders received support from around two-thirds or more of the school stakeholder respondents. For all eight common policy components, parents exhibited significantly higher levels of support than school stakeholders. This information is of value to policy makers in their deliberations relating to the appropriate nature and timing of school food policy modifications.

Introduction

Policy makers can be reluctant to introduce new policies that require substantial change in behaviours among stakeholders because of an anticipated lack of acceptance and support [1, 2]. Evidence relating to the levels of support that can be expected from relevant stakeholders can provide policy

makers with the justification they require to introduce change and the information they need to develop communication programs to facilitate implementation and subsequent compliance [3, 4].

This article focuses on school food provision policies. It has been recommended that such policies be constantly assessed and improved to enhance their effectiveness over time and that this process should include consultation with a broad range of stakeholders [5, 6]. A 'Healthy Food and Drink Policy' (hereafter 'the policy') was introduced in 2007 to government (public) schools in Western Australia in an effort to address high rates of child obesity (25% of Australian children are overweight or obese [7]). The policy, administered by the Western Australian Department of Education, has multiple components, the basis of which is a traffic light food labelling system that categorizes foods as 'red' (foods high in fat, sugar and/or salt), 'green' (fruit, vegetables, lean meats, low-fat dairy products and wholegrain products) and 'amber' (all other foods) [8]. Schools are required to ensure the canteen (cafeteria) menu comprises at least 60% green items and no red items. Red foods cannot be used for school-organized fundraising or social activities, and all canteen managers are required to undergo training relating to the requirements of the new policy. The policy applied equally to all government schools, including both junior and senior schools.

The purpose of this study was to assess the extent to which parents and school-based stakeholders are supportive of expanding the policy by introducing additional components (e.g. requiring more intensive promotion of healthier menu items). Parents and four school-based stakeholder groups

(principals, teachers, canteen managers and Parents and Citizens [P&C] Committee presidents) were consulted to identify and measure support for possible areas of policy expansion. The results are intended to provide support for policy makers in their efforts to extend the reach of school food policies to have a greater potential effect on child obesity.

Materials and methods

The two-phase study received ethics clearance from a university ethics committee. In the first phase, six semi-structured focus groups were conducted with parents of children attending government schools and 48 interviews were conducted with principals, teachers, canteen managers and P&C presidents. The latter four groups are collectively termed 'school stakeholders'. P&C presidents were included in the study because the P&C Committee in each school is responsible for the implementation of the policy. They were classified as school stakeholders rather than parents because they were surveyed in the context of their roles as contributors to the running of the school. The focus groups and interviews occurred ~18 months after the policy had been introduced.

Random digit dialling was used to recruit participants for the six parent focus groups. To be eligible for participation, parents had to have a child who had attended a government school for at least 3 years to ensure they had experienced both the pre- and post-policy school environments. The focus groups were stratified according to school type (primary and secondary) and socioeconomic status (low, medium and high) as determined by suburb of residence. Five men and 27 women attended the focus groups, which were conducted at a university campus and ran for an average of just over an hour. The groups ranged in size from four to seven participants, with an average of five. The discussions commenced with the general topic of healthy eating at school. Once the policy had been spontaneously mentioned, which occurred in all groups, parents' knowledge of and attitudes to the policy were

probed. This occurred via open-ended questions such as 'What do you think the policy is about?' and 'How do you feel about the policy?'. Participants were then asked to nominate any potential additions to the policy that they would like to see implemented.

The interviews with school stakeholders were conducted with representatives from 10 schools selected from the listing of state government schools. The listing was interrogated to identify schools representing a cross section of school types (primary and secondary), socioeconomic status (low, medium and high), sizes (student populations ranging from 100 to 1250), location (city and regional) and canteen operating days (ranging from 1 to 5 days per week). A short list of schools with these varying characteristics was constructed and the principals subsequently contacted to seek their permission for participation. All but one of the principals contacted agreed for their schools to be involved in this phase of the study. The principals then nominated teachers and provided access to the canteen managers and P&C presidents. Ten principals, 18 teachers, 10 canteen managers and 10 P&C presidents were interviewed. Interviewees discussed their knowledge of and attitudes towards the policy, any issues relating to compliance and suggestions for policy expansions. The school stakeholder interviews averaged 30 min in duration.

The first author conducted all the focus groups and interviews, with the second author present to provide assistance. The focus groups and interviews were digitally audio recorded and transcribed verbatim by the second author. NVivo 7 (QSR International Pty Ltd, Australia) was used by the first author to code and analyse the transcripts and develop an inductive interpretation [9]. High levels of acceptance of the policy were apparent, and all groups were able to nominate numerous policy expansions they would support. In combination with issues raised in the literature, the qualitative findings were used to develop five questionnaires for the different stakeholder groups. To suit the access characteristics of the different groups, the parents' questionnaire was constructed as a telephone survey and online versions were developed for the

school stakeholders. Although there were many items in common across the five instruments, there were some variations according to the particular issues relevant to the specific stakeholder group. The length of the instruments ranged from 22 questions in the parents' questionnaire to 29 questions in the school stakeholders' questionnaires. Items relating to the potential expansions had a five-point response scale in the school stakeholders' questionnaires (anchors 'strong disagree' and 'strongly agree'), and the equivalent items in the parents' questionnaire had three response options to better suit telephone administration ('good idea', 'bad idea' and 'no opinion either way'). The questionnaires also canvassed a number of other issues with respect to the policy, which are reported elsewhere (see [10,11]).

Quotas for parents of primary ($n = 600$) and secondary ($n = 600$) schoolchildren were set, along with metropolitan ($n = 600$) and regional ($n = 600$) participants. The parent questionnaire was administered by professional interviewers using random digit dialling to ensure adequate representation across different socioeconomic groups. Once again, only parents with a child who had attended a government school for at least 3 years were eligible to participate. The four school stakeholder online questionnaires were administered via the Department of Education's email notification system that is distributed to all Western Australian government schools ($n = 699$). The emails were addressed to the school principal, who was asked to distribute the survey link to members of the other stakeholder groups within the school.

The questionnaires were administered ~2 years after the initial introduction of the policy. Frequency analyses and chi-squared tests were performed using IBM SPSS statistics version 19 (SPSS Inc., USA).

Results

In total, 1200 parents participated in the telephone survey and 607 school stakeholders responded to the online surveys. Table I provides the sample details for the parent and school stakeholder groups. The

response rate among eligible parent respondents was 68%. Representing the 699 government schools in Western Australia, the school stakeholder respondents comprised 310 principals (44% response rate), 147 teachers, 86 canteen managers and 64 P&C presidents. It is not possible to determine the response rate for school stakeholders other than principals because it is not known how many principals forwarded the survey link and to whom.

To assess the extent to which stakeholders perceived there to be potential to expand the 'Healthy Food and Drink Policy', they were asked their agreement with the statement 'The policy does not go far enough to encourage healthy eating at school'. A quarter of parents (25%) agreed with the statement, with city-based parents being more likely to share this view than parents in regional locations (29 versus 22%, $P < 0.05$). Around a third of teachers agreed with the statement (31%), but school stakeholder agreement overall was lower at 16%. School stakeholders were therefore more likely than parents to view the current policy as adequately comprehensive ($P < 0.001$).

However, when prompted with specific potential policy expansions identified in the qualitative phase of the study, levels of support for changes to the policy were considerably higher. Table II shows the results for the eight additional components included in both the parent and school stakeholder questionnaires. Table III shows the results for the additional 11 potential policy components that were only included in the school stakeholders' questionnaires.

Table II shows that, with one exception, approximately two-thirds or more of parents and school stakeholders expressed agreement with the additional policy components included in both the parents' and school stakeholders' questionnaires. However, in all cases, parent agreement was very high (all but one item attracted >80% support and four attracted >90% support) and significantly and substantially higher than school stakeholder support.

There were no significant differences in parental support by school type (primary versus secondary). There was one significant variation in parental support by demographic differences, with younger

parents (<45 years) more likely than older parents to want healthy lunchbox workshops (79 versus 69%, $P < 0.001$).

Table III shows majority support for 9 of the additional 11 policy components included in the school stakeholder questionnaires, with 5 attracting around two-thirds or more support. From Tables II and III, the policy suggestions receiving highest levels of support (75% or greater) from the school stakeholders included providing canteens with advertising materials to promote green menu items, ensuring that foods sold in the canteen are consistent with the

health curriculum in the school, and wherever possible supplying foods without preservatives/additives. The least supported items were parents being able to email lunch orders to the canteen, canteens selling organic foods and involving students in food preparation in the canteen as part of the health curriculum. These proposed policy components received minority support across all four school stakeholder groups.

There were no significant differences in responses from stakeholders from primary versus secondary schools, but some differences were evident between

Table I. Characteristics of parent and school stakeholder samples

	Metro		Regional		Total ($N = 1200$) %
	Primary ($n = 300$) %	Secondary ($n = 300$) %	Primary ($n = 300$) %	Secondary ($n = 300$) %	
Parents					
Gender					
Male	16	20	14	18	17
Female	84	80	86	82	83
Age group					
18–39 years	33	11	50	18	28
40+ years	67	89	50	82	72
Refused	0	0	0	<1	<1
SES					
Low	8	7	26	29	17
Medium	29	32	56	55	43
High	63	61	15	13	38
Not available	<1	0	4	3	2
Gender of child ^a					
Male	51	50	54	49	51
Female	49	50	46	51	49
Age of child					
6–12 years	98	6	99	3	51
13–18 years	2	94	1	97	49
	Primary ($n = 277$) %	Secondary ($n = 66$) %	Primary ($n = 130$) %	Secondary ($n = 59$) %	Total ($N = 607$) ^b %
Stakeholders					
Principals ($n = 310$)	55	32	64	54	55
Teachers ($n = 147$)	22	34	17	24	22
Canteen managers ($n = 86$)	14	17	10	14	13
P&C presidents ($n = 64$)	9	17	9	8	10
<i>Total</i>	100	100	100	100	100

^aCharacteristics of child nominated by parents for reporting purposes.

^bExceeds aggregation of primary and secondary columns due to missing values for school type.

the four school stakeholder groups. Teachers expressed the strongest level of support for 13 of the 19 suggested components, often at levels similar to parents' responses. The policy elements that were especially popular among teachers and for which

they were significantly more supportive than other school stakeholders included the following: providing canteens with advertising materials to promote green menu items (85 versus 75% average across the other three school stakeholder groups, $P < 0.01$),

Table II. Comparisons of policy component support between parents and school stakeholders

Potential policy component	Sample	% Support	χ^2	P
Students to undertake projects to find new healthy menu items	Parents	93	199.536 ^a	<0.001
	Principals	60		
	Teachers	66	4.435 ^b	<0.5
	Canteen managers	65		
	P&C presidents	76		
Healthy menu options to be promoted more to children at school	Parents	90	135.277 ^a	<0.001
	Principals	61		
	Teachers	80	10.218 ^b	<0.01
	Canteen managers	66		
	P&C presidents	58		
Canteens to be provided with advertising to promote green menu items	Parents	88	24.898 ^a	<0.001
	Principals	75		
	Teachers	85	4.158 ^b	<0.5
	Canteen managers	78		
	P&C presidents	75		
Parents to be involved in suggesting healthy items to be included on the canteen menu	Parents	87	82.280 ^a	<0.001
	Principals	63		
	Teachers	79	8.519 ^b	<0.05
	Canteen managers	61		
	P&C presidents	67		
Parents to be given information about how to apply the traffic light system at home	Parents	84	16.927 ^a	<0.001
	Principals	77		
	Teachers	84	17.888 ^b	<0.001
	Canteen managers	55		
	P&C presidents	73		
More cooperation between canteen managers and teachers to educate students on healthy eating	Parents	81	61.143 ^a	<0.001
	Principals	60		
	Teachers	69	2.408 ^b	<0.5
	Canteen managers	60		
	P&C presidents	62		
Healthy lunchbox workshops for parents	Parent	75	11.488 ^a	<0.001
	Principals	71		
	Teachers	76	24.297 ^b	<0.001
	Canteen managers	42		
	P&C presidents	60		
Students to be involved in food preparation in the canteen as part of the health curriculum	Parents	69	110.381 ^a	<0.001
	Principals	36		
	Teachers	43	1.713 ^b	<0.5
	Canteen managers	45		
	P&C presidents	42		

^aComparison between parents and all other stakeholder groups combined (principals, teachers, canteen managers and P&C presidents).

^bComparison among school stakeholder groups (principals, teachers, canteen managers and P&C presidents).

parents being given information about how to apply the traffic light system at home (84 versus 72%, $P < 0.05$), canteens selling foods without preservatives/additives (84 versus 73%, $P < 0.05$), providing

parents with information about how the traffic light system applies to the school canteen (82 versus 71%, $P < 0.05$), asking parents to suggest healthy items to be included on the canteen menu

Table III. School stakeholder support for additional potential policy components

Potential policy component	Sample	% Support	χ^2	P
Foods sold in the canteen to be consistent with the health curriculum taught in schools	Principals	77	6.582	<0.5
	Teachers	79		
	Canteen managers	74		
	P&C presidents	63		
Canteen to sell foods that do not have preservatives/additives wherever possible	Principals	75	7.051	<0.1
	Teachers	84		
	Canteen managers	73		
	P&C presidents	64		
Providing parents with more information about how the traffic light system applies to the school canteen	Principals	72	4.141	<0.5
	Teachers	82		
	Canteen managers	71		
	P&C presidents	69		
Encouraging students to undertake projects to promote healthy menu items	Principals	60	4.435	<0.5
	Teachers	66		
	Canteen managers	64		
	P&C presidents	76		
Foods to be priced according to their healthiness, with the healthiest foods being the most affordable	Principals	67	11.935	<0.01
	Teachers	72		
	Canteen managers	47		
	P&C presidents	67		
Canteen to sell local produce/products wherever possible	Principals	57	11.264	<0.01
	Teachers	77		
	Canteen managers	62		
	P&C presidents	58		
Seating areas available to children for eating	Principals	59	3.123	<0.5
	Teachers	57		
	Canteen managers	50		
	P&C presidents	65		
Recipes for the most popular menu items provided to parents	Principals	62	24.903	<0.001
	Teachers	61		
	Canteen managers	29		
	P&C presidents	50		
More information about healthy eating provided in the school newsletter	Principals	50	5.655	<0.5
	Teachers	62		
	Canteen managers	47		
	P&C presidents	45		
Canteen to sell organic foods wherever possible	Principals	32	8.286	<0.05
	Teachers	40		
	Canteen managers	24		
	P&C presidents	20		
Parents to be able to email lunch orders to the canteen	Principals	29	13.371	<0.05
	Teachers	24		
	Canteen managers	8		
	P&C presidents	26		

(79 versus 63%, $P < 0.01$), healthy menu options being promoted more to heavily to children (80 versus 62%, $P < 0.01$) and canteens selling local produce (77 versus 59%, $P < 0.001$).

Canteen managers were particularly averse to offering parents the option of emailing lunch orders to the canteen (8 versus 28%, $P < 0.001$), providing parents with recipes for the most popular menu items (29 versus 60%, $P < 0.001$) and pricing foods according to their healthiness (47 versus 68%, $P < 0.001$). P&C presidents were significantly less supportive of foods sold in the canteen being consistent with the health curriculum (63 versus 78%, $P < 0.05$).

Discussion

The results show very high levels of support for specific additional policy components among parents and strong support for the same plus several other potential additional policy components among school stakeholders. The most popular suggestions related to three areas: embedding information about school food provision into the curriculum ('Students to undertake projects to find new healthy menu items', 'More cooperation between canteen managers and teachers to educate students on healthy eating'), greater involvement of parents ('Parents to be involved in suggesting healthy items to be included on the canteen menu', 'Parents to be given information about how to apply the traffic light system at home') and increasing the promotion of healthy foods ('Healthy menu options to be promoted more to children at school', 'Canteens to be provided with advertising to promote green menu items').

These components of a school food provision policy have support in the literature and hence have relevance in the broader international context. There have been numerous calls for greater consistency between nutrition information included in the health curriculum and the foods provided on school premises [12–15], and for increased promotion of healthy foods at school to counteract the ubiquitous advertising for unhealthy foods to which children

are exposed in other contexts [16–18]. Although there does not appear to be discussion of parents being actively involved in menu determination, the importance of consulting with parents during intervention development and implementation has been recognized [19].

Of note were the relatively few significant differences in responses according to demographics within the parent sample. For example, one study conducted prior to the introduction of the policy found that lower socioeconomic Western Australian parents were less likely to agree that school canteens should only sell healthy foods than were other parents [20]. However, this study found that in the post-policy environment there were similar levels of support for the various additional policy components among parents regardless of socioeconomic status. Previous research has also suggested significant variations by parent age and gender, with older parents and women found to be more supportive of healthy school food policies [21]. Although this study identified some policy components that were more supported by women, the age differences, where present, were in the opposite direction, with younger parents being more supportive than older parents.

Teachers have been described as being a possible 'sticking point' in school nutrition interventions due to a possible lack of interest and relevant skills [22, 23]. Contrary to this view, the results of this study indicate that teachers are likely to be at least as supportive of the nominated policy components as other school stakeholders, and in many cases they may be more supportive. Teachers may thus constitute an important asset in achieving broader dissemination of the policy throughout the school environment and hence could benefit from particular attention in the form of policy communication and training [24–26].

The study has several limitations. In the first instance, parents and school stakeholders with a particular interest in child nutrition are more likely to have participated in the study than their less-engaged counterparts. It is also possible that the responses reflect a degree of social desirability bias given that child obesity has been widely discussed in the Australian media in recent years.

The inclusion of multiple staff from the same schools in the qualitative phase of the study may have introduced a nesting effect whereby the same issues were repeatedly raised because they happened to be more salient at those particular schools. However, the use of quantitative surveys to assess the relevance of the issues over a large number of schools should have largely addressed this problem.

To conclude, little research to date has investigated the extent of support for specific potential school food policy components. The results of this study demonstrate that important stakeholders may be highly supportive of substantial expansions to existing school food policies. This information is encouraging for policy makers in their efforts to continually enhance policies and programs that have the potential to prevent and address child obesity. Future research in other countries could assess the extent to which the potential policy expansions identified in this study would be considered appropriate by stakeholders elsewhere.

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Conflict of interest statement

None declared.

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