Modifying the food supply at a community swimming pool: a case study

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Introduction

Environmental obesogenicity is defined as “the sum of influences that the surroundings, opportunities or conditions of life have on promoting obesity in individuals or populations.” Community swimming pools are one setting in which concern about harmful environmental influences on healthy weight may seem paradoxical. Most, however, have a kiosk that sells energy-dense, nutrient-poor (EDNP) snacks or, increasingly, a fully catered café selling a wide range of snacks, meals and beverages. Despite their relatively small contribution to daily energy intake, kiosks are a common source of EDNP snacks, especially for children and adolescents. Australian parents report that the most frequently bought foods at swimming pools are iced confections, chips, cakes and biscuits. Recreational settings have been identified as a priority for health promotion, but to date there is limited knowledge about how to work in them.

To extend the understanding of working in this setting, this paper reports a case study of a pilot project undertaken at a community swimming pool.

The analytic framework used in this project is the Analysis Grid for Environments Linked to Obesity (ANGELO). ANGELO is an environmental analysis tool for needs assessment and program planning developed by Swinburn and colleagues. Community recreational facilities represent a micro-environment in which “groups of people gather for specific purposes which typically involve food, physical activity, or, frequently, both.” ANGELO distinguishes four environmental types: physical (what is available), economic (the costs related to food and physical activity), political (the rules related to food and physical activity) and socio-cultural (attitudes, beliefs and values related to food and physical activity). Our project concentrated on the physical and socio-cultural environments. The primary goal was to modify the physical environment by full replacement of EDNP items at the kiosk with ‘healthy’ items. The project used the NSW Healthy School Canteens Strategy (See Box) to define a ‘100% healthy’ goal, i.e. the inclusion of food and beverage items defined as green or amber in the planning guide, and with a moratorium on red items for the duration of the pilot. The project also aimed to make explicit and consistent the contradictory nature of the availability of ‘unhealthy’ food at a recreational venue, thus aiming to change the social climate. With regard to the political environment, policy commitment for the project had been given in the local government area’s social plan. The economic environment was somewhat

Abstract

Issue addressed: We report on a process evaluation of a project that aimed to replace energy-dense, nutrient-poor (EDNP) items at a community swimming pool kiosk. The analytic framework was the Analysis Grid for Environments Linked to Obesity (ANGELO). To contribute to health promotion practice in recreational settings, the process evaluation sought to determine the extent to which project ‘controversies’ modified project objectives and strategies.

Methods: The case study method captured the project narrative. The primary data were interviews with key project participants, supplemented with project records and media articles. These were analysed thematically.

Results: The socio-cultural and political environments, particularly the capacity to exercise choice in relation to EDNP products, had considerable influence on the project. In the face of two controversies – “I thought everyone was signed up to it” and “We can’t deny the kiddies their ice-cream” – it was necessary for the project partners to modify the objectives and strategies and substantially change the target.

Conclusions: The setting is highly responsive to both the micro and macro socio-cultural and political aspects of the environment.

Key words: Food supply, recreational setting, obesogenic environment, process evaluation, case study

So what?

This setting is more complex than a first glance would suggest. A flexible approach and attention to the influence of the micro and macro environments are required when working in this setting.
Green category foods are described as ‘fill the menu’ foods which should be encouraged and promoted.7 Green foods are based on the five core food groups and the Australian Dietary Guidelines. Amber category foods are foods to select carefully by reducing their number on the menu and avoiding large serving sizes. Amber foods are mainly processed foods that have had some sugar, fat or salt added to them. Red category foods are ‘occasional foods’; the sale of which is limited to twice per term in school canteens. These foods lack adequate nutritional value and are high in saturated fat and/or sugar and/or salt.

sensitive, as it was considered inappropriate to discuss retailing costs with our business partner.

The local government community services division, health promotion public health nutrition and a local business person who leased the pool kiosk from the council agreed to co-design the new 100% healthy ‘menu’ to be piloted for one season (approximately October to March).

**Process evaluation**

Traditionally process evaluation has been viewed as a vehicle for ensuring “that the program you planned has really been set up and run the way you intended.”6 Problems encountered may be identified as the result of poor implementation or the poor capacity of the partners to run the program as designed.7,8 The inconsistent responses of target individuals and groups may even be regarded as ‘subversive’.7 Reports may conclude with recommendations for steps to remediate such problems. In this approach to process evaluation, projects are regarded as relatively static entities that are ‘added in’ to the environment, ‘subversive’ reports may conclude with recommendations for steps to remediate such problems. In this approach to process evaluation, projects are regarded as relatively static entities that are ‘added in’ to the environment in order to modify health behaviour or some component of the environment.9,10 An alternative and more contemporary approach views projects as open systems9 or ‘events in systems’11 that interact with their environment. Viewing projects in this way encourages health promotion practitioners to consider how a project itself is modified by the environment as it progresses.9 Evaluation is construed as ‘a feedback system between a (project) and its environment’, allowing evaluators to consider how implementation difficulties might help generate more effective responses to environmental conditions to enhance the project. Instead of viewing implementation difficulties as the result of careless or inappropriate implementation, they may be viewed as ‘controversies’, i.e. ‘obstacle[s] or conflict[s] which force the network of actors to reorient or expand’10 their thinking about the problem. Controversies become opportunities to modify the goals, objectives and strategies to more effectively respond to the project environment.10 This approach to process evaluation is consistent with the ANGELO framework, in that it provides opportunities to further explore the four environmental types and their influence on the project. With that in mind, we posed three questions:

1. How did the project team respond to project-environment interactions (controversies) to modify the project objectives and strategies?
2. What did the project team learn about the project environment – physical, socio-cultural, economic and political?
3. What are the implications for health promotion practice in this setting?

**Method**

This process evaluation used the case study method. Case studies focus on a specific example of an event or phenomenon of interest12 to draw conclusions inductively. They are ideal for illuminating the role of context on an event’s progression.13 Case studies use multiple data sources and methods.14 We chose to capture the project narrative and interpret stories of the intervention to provide a more extensive understanding of the project. Riley and Hawe15 remind us of the usefulness of narrative research to (in the words of community psychologist Edison Trickett) uncover the “compromises, choice points and backroom conversations”16 that take place as a project unfolds. Our primary data were interviews with each of the three key project participants and their manager were possible. The list of key project personnel and the abbreviations used in this paper are shown in Table 1. Interviews included questions about project involvement and role, significant events (both planned and unexpected) and project modifications. Other data sources were project records and meeting minutes summarised by the second author, along with media articles. Two opportunistically sampled surveys were undertaken by HP and LG:

1. A food and drink preferences survey, using a visual aid,17 of five to 12-year-old children (n=102) at a local vacation care centre.
2. A ‘taster survey’ of facility patrons (n=47) which asked about the new items and attitudes about restriction of sale of energy-dense, nutrient-poor products to children and adults.

NVivo 718 was used to manage and code the data and support thematic analysis. Themes are “general propositions that emerge from the diverse and detail-rich experiences of participants and provide recurrent and unifying ideas regarding the subject of inquiry”.19 A coding scheme was developed from multiple readings of the interviews by the authors and refined as coding proceeded. To elaborate themes, initial memos were made by the first author and were then further refined by both authors to address the research questions. The other data sources were used to supplement and corroborate the themes.

Ethics approval for the evaluation was obtained from Northern Sydney Central Coast Area Health Service’s Human Research Ethics Committee.

**Table 1: Project’s key players.**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Position</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Promotion</td>
<td>Public health nutritionist</td>
<td>HP</td>
</tr>
<tr>
<td>Health Promotion</td>
<td>Director</td>
<td>HPD</td>
</tr>
<tr>
<td>Local government</td>
<td>Social planner</td>
<td>LG</td>
</tr>
<tr>
<td>Local government</td>
<td>Community services manager</td>
<td>LGM</td>
</tr>
<tr>
<td>Community pool kiosk</td>
<td>Business person</td>
<td>BP</td>
</tr>
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</table>
Findings

For evaluation question one, two controversies that occurred as the project unfolded were examined. Evaluation question two was addressed with respect to the environmental types in the ANGEO framework. Finally, evaluation question three addressed the implications for health promotion practice in this setting. Some final comments and recommendations are made in the Conclusions section that follows.

How did the project team respond to project-environment interactions (controversies) to modify the project objectives and strategies?

Controversy 1: “I thought everyone was signed up to it.”

Early in the implementation there was disagreement about the extent to which green and amber items should replace the EDNP foods. LG remained convinced that the proposed change was consistent with the purpose of the recreational setting and was ready to implement the project as planned. However, BP, even with substantial social motivation to contribute to reducing childhood overweight and obesity, expressed concern about the feasibility of a 100% healthy menu. Over the recent summer season, customers had indicated opposition to the removal of some items from the kiosk, particularly hot chips. BP also expressed concern about the implications of replacing the EDNP foods on the operation of his business (e.g., additional space needed for storage and display, and increased food wastage).

To maintain project momentum in the face of BP’s reticence, HP and LG adopted two strategies: First they worked to maintain BP’s engagement in the project by focusing on core business, i.e. the food and drink items. Over seven months, BP was engaged by keeping the activity relevant to the business of food retailing and reducing the number of meetings BP’s staff were required to attend. Second, they prepared a business case after investigating other similar projects. Later BP reported that this did not provide evidence for or against the project, but it was apparent to HP and LG that it did maintain his interest at the time.

BP was also concerned that children’s preference for red items would prevent them selecting green and amber alternatives. The children’s survey showed their intention to try wraps, soup, muesli bars, sushi and yogurt. Water ranked close behind soft drinks as their second preference beverage for snacks and meals. This was presented to BP in support of adopting alternative items.

Controversy 2: “We can’t deny the kiddies their ice-cream.”

Conflicts in the political and educational sectors were reported in the mass media mid-year. First, at the NSW Parents and Citizens Federation (P&C) annual meeting a motion to extend the Fresh Tastes school canteen policy to other activities, including school fetes, fundraising and sports days, was defeated. Concurrently, it was reported that the then Federal Health Minister had informed the Australian Health Ministers’ Advisory Council that the then Prime Minister had “shut down any possibility of further regulating the marketing food to children, saying obesity was the responsibility of the individual.” Coupled with feedback from customers, this apparently pro-food choice stance may have had implications for this project. HP was informed by the council that a program of ‘food choice’ was now the preferred approach, ruling out the proposed moratorium on foods meeting Fresh Tastes’ red criteria. A shift in strategy was now required to keep the project viable. The compromise approach agreed by LG and HP was to:

- remove some red items in the first instance and aim for a staged approach to the introduction of a significant proportion of green and amber foods (at least 50%);
- preferentially display green and amber items; and
- progressively increase the proportion of green and amber items.

There was, however, a proviso that some items would be continued, particularly hot chips and ice-creams. Healthier (amber) iced confections would also be stocked. LGM put these suggestions to BP and a display guideline was prepared to meet the revised conditions.

What did the project team learn about the project environment – physical, socio-cultural, economic and political?

The socio-cultural and political environments

The socio-cultural environment interacted strongly with the political. The local or micro ‘rules’ in action and the social values reflected the policies, regulations and value systems of macro organisations, both government and non-government, which had eroded on the side of consumer choice. Our simple belief that making consistent a contradiction between a healthy behaviour (swimming) and an unhealthy behaviour (consuming EDNP items) would attract support was not borne out. At the council, however, there was general support for the project, though some uncertainty about the role of local government in dietary regulation.

These concerns reflect the values of consumers: the capacity to exercise consumer sovereignty in relation to EDNP products was an important theme throughout the project. Some EDNP foods – ice-creams and, particularly, hot chips – were highly symbolic and contentious. Strong claims were made by various parties about the autonomous right of customers to choose such items. The project became controversial due to its apparent potential to erode autonomous decision making. This was reflected in the ‘taster survey’. Despite a general preference for new menu items over the old, respondents highly valued their freedom to choose EDNP items. Most felt, however, that some restriction on the sale of EDNP items to children was appropriate. The importance of consumer choice was echoed in BP’s comment that the market (i.e. consumers) drives change. Retrospectively, he observed that a 100% healthy (i.e. green and amber) menu was not possible for an existing venue, although it might be feasible at a new site.

The physical and economic environments

BP’s comment brings us to the physical and economic aspects of the environment, which also intersected. The kiosk is a site of activity in which food is ordered, promoted and sold. Patrons make purchasing decisions and, if privately operated, it requires a profit margin. The economic aspects of the environment were reserved for BP and, on
occasion, local council – at various times HP was required to stand back while business-related issues were resolved.

It was also necessary to consider the different perspectives of the business partner, in that failure could mean loss of income. Provision of green and amber foods requires extra effort, with implications for profit margins. Clear guidelines about what constitutes such items and their availability were absent: HP observed that BP found the Fresh Tastes information about green and amber items difficult to interpret and use. The availability of ready-made green and amber substitutes for packaged snack foods, e.g. crisps and iced confections, was investigated. Various products were trialled for sale, but with limited success. For example, air-popped corn, a popular choice in school canteens, did not sell well, and it was difficult to replace iced confections with appealing options.

What are the implications for health promotion practice in this setting?

The setting is more complex than first impressions suggested and it presented considerable challenges for health promotion activity.22-26 We believe our study provides three primary lessons for health promotion practitioners:

Project objectives and implementation.

In health promotion, there exist demands to explicitly define project objectives and strategies in the planning stages. Our project shows that the definition of explicit goals and objectives based on established health promotion planning approaches may need reconsideration for this setting. This project progressed because we were able to agree to substantially modify its objectives and strategies in response to project controversies. Without a mandate to do so, the project may have stalled and would have been regarded as a failure.

The readiness of the market for change should be assessed carefully before the project begins and again throughout. Finding a comfortable position between the goals of health promotion to increase the availability of healthy foods and to change the food environment and the readiness of the market to accept change is a tension that requires consideration and reflection if working together with business and other partners is to be successful.

Working with partners

In health promotion, the engagement of partners in project planning and implementation is considered important. Our approach to the partnership was to work with the BP to establish the goal and strategies, including the design of new items for the kiosk. While acknowledging the value of collaborative work, our approach to collaboration25 may not be appropriate when working with small private sector operators. It required time and resources that were costly to BP. First, he did not consider a series of meetings to be necessary and, second, felt that involvement with the development of the new menu was highly resource-intensive. He suggested that a template of menu items, and a demonstration that ‘it works’ (i.e. does not reduce profit in the longer term) would make such a project appealing to private sector operators. Thus an alternative approach might be to introduce a fully developed set of items with requirements for space, staffing, display and so on.

Problem framing

Different stakeholders will view a problem in different ways depending on their professional background, organisational goals and personal values.21 Body weight and food buying may be framed as individual responsibilities or considered issues relating to context and environment (see Henderson et al.27 for an example of framing the regulation of fast food advertising). We framed the issue as one in which there was a contradiction between a ‘healthy’ behaviour and an ‘unhealthy’ one, and believed that providing consistency would be apprehended as a positive move. However, our framing of the problem was ‘not bought’ by all stakeholders, as the community may not agree about the health risks associated with the consumption of EDNP foods or the need to ‘regulate’. In the end, a balance between personal choice and regulation was sought, quite literally in fact when one considers the agreement to a revised 50% goal for amber and green items at the kiosk.

Conclusions

The purpose of a case study is the generation of indepth understanding. While a case is not sampled representatively, it does enable researchers to draw conclusions to apply to other similar situations.28 To recap our particular circumstances: a local government swimming pool that included a kiosk leased by a business owner. In all, our case study demonstrates the complex nature of working in this apparently simple setting, providing information about the challenges, processes and controversies that health promotion is likely to encounter. It reminds us that settings are dynamic, diverse and exist as a broader system20-22 in which a new project may be a feature subject to change. As a framework for analysis of the setting, the social and physical environments identified in the ANGELO model1 proved useful in the design phase of the project, as we settled on project objectives. All four environmental types distinguished by the model provided a framework for analysing the project and its environment in this case study. As a model for project planning, ANGELO could have been extended to include more qualitative research into the needs assessment phase beyond the limited stakeholder analysis we were able to undertake. ANGELO also served as a tool for reviewing key project events as the project proceeded.

In conclusion, we make three recommendations to health promotion practitioners working in this setting:

1. Be prepared to be flexible with objectives and strategies by setting general goals and allowing the project to be modified as it interacts with the environment.
2. Develop an understanding of your setting, including the socio-cultural and political aspects of the environment before the project, and review throughout.
3. Be mindful that partner commitment to healthy weight or reducing childhood obesity is made in the context of the constraints imposed by the physical and economic aspects of the setting.
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References


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