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Eating Inside: food service experiences in three Australian prisons

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Keywords
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Australian prisons
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Abstract
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- Complaints about food quality, lack of choice, and insufficient milk.
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Many complaints were related to factors outside the control of the food service management such as meal times, eating environment and lack of personal choice, but food and menu quality issues were also highlighted. Some of the inmate food handling practices may be posing unacceptable food safety risks.

Introduction

Food service providers in correctional facilities face major challenges in catering for both men and women of various ages, racial and religious groups, and health status. The aging prison population (LaVecchia, 1997), budget constraints (Stein, 2000) and security needs (Gater, 2003) must be considered, and in addition the food needs to be safe, nutritionally balanced and appealing. Meals become very important social occasions in prison as an escape from the boredom of daily routine, and the ability to prepare some home-made and culturally specific food is highly prized (Goddìris, 2006a). However, the attitude of inmates towards food is generally negative, with studies frequently demonstrating the prisoners reporting food as being ‘bad’ or ‘very bad’ (Smith, 2002).

In correctional facilities New South Wales (NSW) Australia, a 2001 Inmate Health Survey revealed diet and nutrition to be the most prevalent issues of concern among inmates: overall, dissatisfaction among men and women was 68% and 47% respectively. Common complaints were poor food preparation and unhealthy choices (Corrections Health Service, 2001). Similar issues have been identified in the UK, with more than 60%

A lack of understanding and confusion by staff about special diet requirements is another issue that has been reported by the inmates in the UK and the USA, particularly in regards to vegetarian diets (Smith, 2002; Strandberg, 2001). The 2001 survey indicated that 8-12% of NSW inmates receive a special diet. Amongst this population, 89% of females and 67% of males have encountered problems receiving their special diets (Corrections Health Service, 2001).

Quantitative results from survey data commonly record an abundance of negative responses about food, but the nature of this type research often misses the deeper meaning and extent of understanding that can be revealed through qualitative research (Patenaude, 2004). However, correctional facilities can be sensitive and unstable environments for social research (Kalinsky, 2004) and there have been few publications on the broader attitudes of inmates to food service provision.

This project sought to gain a deeper insight into the opinions of the inmates in NSW correctional centres regarding the food service. It aimed to identify areas of concern, and collect inmate views about topics such as food purchased in buy-ups, attitudes towards taste and quality, wastage, and suggestions for improvements.

**Methods**

The study took place at a major correctional complex in Sydney, NSW. This included three separate centres: (A) a remand centre for inmates waiting trial, which caters for around 900 males; (B) a minimum security gaol that accommodates close to 500 male inmates, some of whom work in a the central cook-chill kitchen, and (C) a maximum security centre with 160 female inmates. There were two parts to the study: a nutritional analysis of the menus and focus groups with inmates from the three centres.

A cook-chill food service system is primarily used for the hot evening meal, while the majority of the weekday lunches are fresh items such as sandwiches and salads. There are Summer and Winter non-selective four week cycle menus, that also incorporate vegetarian and religious-appropriate dishes if requested. Inmates are also able to purchase additional food from a canteen or ‘buy-up’ list if they can afford to do so. The most common items purchased by men are meat, noodles and eggs. In contrast, the women commonly purchase sweet items such as lollies, biscuits, cakes, chocolate and soft drinks (Corrections Health Service, 2001).

**1) Menu Analysis**

The four week Summer and Winter menus and all available recipes were obtained. Recipes were entered onto the FoodWorks™ nutrient analysis program (Version 3.02 Professional Edition, Xyris Software 2003) for nutrient analysis per serve for 21 nutrients: energy, protein, fat, saturated fat, cholesterol, carbohydrate, sugars, fibre, thiamin, riboflavin, sodium vitamins A and C, folate, niacin, calcium, phosphorous, magnesium, iron, zinc and potassium.

The menus and nutrient analyses were then compared to the following national standards:
- **Recommended Dietary Intakes** (National Health and Medical Research Council, 1996)
- **The Australian Guide to Healthy Eating**, which gives the recommended minimum number of serves of each food group for good health (Smith et al, 1998).
• A Food Variety Score which categorises food items botanically to examine the variety provided weekly, out of a maximum of 57. The ratings used were: <20 different categories of food/week, poor; 20-24, fair; 25-29, good; >30, very good (Savige et al, 1997).
• The Dietary Guidelines for Australian Adults (National Health and Medical Research Council, 2003).

2) Focus Groups/semi-structured interviews

Seven groups of inmates (n=35) were selected to participate from the three centres. Participants were recruited through selection by the custodial staff or by the research team selecting inmates from a nominal roll which was provided by the manager on duty. The selected groups were designed to represent a range of inmates, and also to include groups that have differing needs or expectations in relation to food (Table 1). The inclusion criteria for the participants were that they must speak English and have been in custody at the current location for at least 2 months. Exclusion criteria included inmates deemed to be a risk to the researchers, those working in the kitchens, and no more than one participant from the same cell.

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>Sample (n=)</th>
<th>Gender</th>
<th>Age (yrs)</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>5</td>
<td>Male</td>
<td>30-55</td>
<td>Working</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>6</td>
<td>Male</td>
<td>25-45</td>
<td>Not working</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>6</td>
<td>Male</td>
<td>20-40</td>
<td>Asian: Chinese-Vietnamese</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>4</td>
<td>Male</td>
<td>30-65</td>
<td>General</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>6</td>
<td>Male</td>
<td>25-65</td>
<td>Majority on remand</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>7</td>
<td>Female</td>
<td>20-40</td>
<td>1 Long-term; 1 Vietnamese</td>
</tr>
<tr>
<td>7</td>
<td>C</td>
<td>2</td>
<td>Female</td>
<td>25-40</td>
<td></td>
</tr>
</tbody>
</table>

The groups were conducted in October and November 2005. At the beginning of each session an introduction was given, including the purpose of the research and assurance of confidentiality. All sessions ran for approximately one hour and were facilitated by one researcher, with another acting as an observer and recorder. All sessions were digitally recorded and transcribed verbatim. Participants were asked open-ended questions about the food service they were currently receiving, and asked to freely comment on these issues. Qualitative analysis software, Nvivo 2.0 (QSR International Pty Ltd, 2002), was used for data management and coding of the transcripts. From the transcripts, 16 key themes were identified. Coding decisions were agreed by at least two of the researchers.

**Results**

**Menus Analysis**

The majority of nutritional requirements were adequately provided by the average provisions from the Winter and Summer menus for all nutrients with the exceptions of saturated fat, cholesterol, folate, zinc and sodium (Table 2).

Like the finding of a recent survey of food in British prisons, the sodium content of the menus was significantly above recommendations, but was not dissimilar to current
intakes nationally. The fibre content (average 31g/d) was much better than that reported in the UK study (<13g) (National Audit Office, 2006). The menus also compared favourably to the dietary guidelines of adults and the recommended serves of food groups, and including a good selection of wholemeal, salad and low fat choices. The only exception was fruit, which at 1.5 serves/day was less than the target of 2 serves. The Food Variety Score of 32 different food categories per week gave the menus a variety rating of Very Good.

Table 2. Daily nutrients from male menus not meeting national nutrition targets

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Target or RDI</th>
<th>Provision Above</th>
<th>Provision Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat (%E)</td>
<td>&lt;30</td>
<td>36.6</td>
<td></td>
</tr>
<tr>
<td>Saturated Fat (%E)</td>
<td>&lt;10</td>
<td>14.1</td>
<td></td>
</tr>
<tr>
<td>Cholesterol (mg)</td>
<td>&lt;300</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>Folate (µg)</td>
<td>400</td>
<td></td>
<td>316</td>
</tr>
<tr>
<td>Zinc (mg)</td>
<td>14</td>
<td></td>
<td>13.6</td>
</tr>
<tr>
<td>Sodium (mg)</td>
<td>900</td>
<td>4770</td>
<td></td>
</tr>
</tbody>
</table>

Focus Groups

Figure 1 shows the number of comments made about each of the 16 key themes discussed by the inmates.

The following summaries explain some of the key inmate concerns and provide exemplar quotes for each.

Figure 1. Frequency of comments made about the 16 key themes
Food quality

- It’s unappealing, unappetising, quite bland
- There’s nothing you like, you never look forward to a gaol meal, never
- Tastes like plastic
- It’s always a sloppy meal
- Half the time it comes across it’s cold

At the beginning of each focus group participants were asked for general comments about the food services. The majority replied with negative responses, including ‘rubbish’, ‘disgusting’ and ‘no good’. The quality of the food itself was a major issue for many of the inmates, with the taste, texture and appearance being regarded as unsatisfactory. The majority of the dishes provided were said to be disliked, however exceptions were the yoghurt, dried and fresh fruit, salad packs, roast dinners, and meat pies. Although fruit was liked, the quality was seen as poor, often reportedly being bruised, discoloured or not ripe.

The texture of some meals were described as either ‘soggy’, particularly the pre-made sandwiches, or ‘dry’, such as the carrots in salads. Presentation of the evening meal in a foil tray was thought to be ‘terrible’; it appeared the contents were always mixed together, not allowing inmates to distinguish what was included.

Buy-ups

- We rely heavily on the buy-ups
- Give us a bit more, more variety [on the regular buy-up] so we can cook our own [Asian] food
- I just can buy some vegetable and Asian food. I cook my own food so I’m okay
- Sixty dollars isn’t nothing in the buy-ups, like you buy a few vitamins, hair gel and it’s all gone, you can buy five cans of tuna and it’s finished
- Majority of the inmates can’t afford it. The battlers are the ones that suffer, that don’t have no one outside that sends money for buy-ups and they gotta eat the food

Inmates reported heavily relying on weekly buy-up purchases to supplement their meals. Those who could afford to buy additional foods preferred to prepare their own meals and eat this rather than what was provided. Tuna, eggs, milk, rice, pasta, sardines and salmon were the most common items bought. There were criticisms about a lack of variety (especially meat), healthy options and fresh produce on the buy-up list.

The price of many items on the buy-up list was thought to be ‘very expensive’. Inmates can spend up to $60 per week on buy-ups, which includes food, toiletries and tobacco. All inmates felt that this amount was inadequate, however increasing the limit might serve to increase discontent between those who did and those who did not have money for buy-ups. For Asian inmates, the allowance was more than enough; they reported buying a lot of rice which is one of the cheaper items. Nonetheless they requested more Asian foods be available for purchase ‘such as the Chinese sausages, pork buns, spring rolls, pork cubes’.

Health

- Some of the food worries you cause it’s reheated and that, it’s not healthy you know? You know it’s not healthy, but sometimes you eat it cause otherwise you’re gunna starve

Many of the inmates questioned the quality and nutritional value of the food. Some participants claimed to have experienced problems with their health, including constipation, diarrhoea and weight loss that they felt was food-related. Both male and female inmates also acknowledged that they were often in a poor mental state of mind, and that food would have a positive impact on this if it were enjoyed. Many said they were
health conscious and wanted low fat nutritious foods, including a wider selection of salads and fruit. Many of the males regularly participated in resistance training and wanted their diets to complement their training in an effort to stay healthy and in good physical condition.

**Food service system**
- It’s strange, it’s new, it’s foreign to them, having to eat out of a tin tray
- It’s been cooked and reheated so many times, that’s the biggest trouble with it

There seemed to be general misconceptions about the food service system, how the food was being prepared and the location of food preparation. There were some negative attitudes expressed towards the ‘cook-chill’ system and how it affects the acceptability of the food. The majority of the inmates would prefer freshly made meals, and suggested that raw produce should be provided to them (to cook) rather than a pre-made meal.

There were also negative attitudes towards the inmates being involved in making the food, particularly among the females:
- A lot of the time your imagination won’t let you eat the meals too, because they do come from the men’s gaol……I’ve heard some disgusting stories about what they’ve done to the meals

**Facilities**
Access to adequate facilities for cold storage was limited. Some of the inmates felt that the refrigerators in their common areas were not operating at a low enough temperature to keep items cold, and that there was insufficient capacity to accommodate all of the inmates’ food. Stealing was also a concern with the use of communal refrigerators; this led to inmates storing food in their cells, often inadequately, such as wrapping hot food in towels or keeping milk cool in a sink full of water.

Facilities for food preparation and cooking were a major concern for the inmates as there were a high proportion of them who cook their own meals. Rice cookers were extensively used for reheating and cooking of meals. There was anxiety expressed among the groups in relation to rumours of rice cookers being completely removed from the prison setting:
- I think we have a fear.........that there is going to become a time that perhaps we won’t even have access to rice cookers.
- It would be impossible without one

**Serving size**
- They expect me to work six hours a day and yet they feed me one little cereal with 300mL of milk
- I’m round chasing up off other people to try and get their rations so I can stop myself from starving
- Nowhere near [enough milk].... you gotta either drink coffee or have your cereal

Although the menu analysis indicated that adequate energy was provided in the food given to inmates, the serving sizes of the meals and snacks were generally regarded as small, particularly by the male inmates. Basic staples such as milk, bread, and tea and coffee were considered insufficient for the day, as well as the single serving of fruit, small cereal packs, and main meals. The quantity of meat in the hot evening meal was also a major issue of complaint.

**Variety**
- Even if it was good food you’d get sick of it after eating the same food every night
• Whether we like it or not because we had it already last week and the week before we know what it tastes like

There were many comments about lack of variety on the four-week cycle menus. However, it was also acknowledged that the menus were improving, and that addition of items such as the dried fruit and yoghurt pack and a hot and spicy chicken burger were welcome.

In prison, food choices are restricted and this aspect of control is taken away from inmates. Many did express frustration about not having any personal choice when it came to the actual meals provided, but generally accepted that this was not going to change.

**Waste**

• Probably eat one or two meals a week, the rest is just rubbish
• I think ninety five percent of the inmates here waste the food
• The only meals that I ever see eaten consistently within this centre are the salads

High levels of food wastage were reported and inmates suggested that for some meals, particularly the hot evening meal, up to 90% of them were thrown away. The fish and seafood dishes were thought to be the meals that were most commonly wasted. This concurs with results from a 2005 Food Preferences Survey which found that over 50% of the inmates disliked the crumbed fish and ocean stir fry, and alternatively that nearly 70% liked the yoghurt.

Most groups showed concern about the amount of waste and were keen to try and find ways to help reduce this. As this study was qualitative, there was no objective measure of waste, and the amounts reported could be exaggerated. Therefore, further studies measuring actual amounts of waste are warranted.

**Cooking and Food Safety**

• I’m one of 90% of the people in this wing with a rice cooker, so you can just reheat it when you feel like eating
• I’ll just pick the meat out of this and I might buy-up and buy some noodles and I’ll put this in with the noodles and make it taste a bit more to our liking
• You can’t store it...just keep the cockroaches off it
• Leaving chicken out for hours until we get the actual food. Yeah its not hygienic at all.

The majority of the long-term inmates had purchased a rice cooker to use in their cell. It was commonly reported that inmates take out components of a meal such as the meat, chicken, potatoes or corn, and wash them to be re-cooked in a rice cooker with other ingredients purchased on buy-ups. However, this poses a large potential food safety problem, particularly at the remand centre where inmates are locked into their cells at 3:00pm with their hot evening meal. Often this meal can sit in the cell unrefrigerated for up to five hours, and then parts of it will later be re-used when inmates cook for themselves.

Women inmates addressed the importance of maintaining their living skills whilst in the correctional centre:

• the fact that we as women, as the sole carers more often than not of our families, we are losing living skills by not being able to cook for ourselves........over a long period of time this is certainly not leading towards rehabilitation
• I think something very important is for women to be able to maintain a household, to be able to cook, to be able to budget within that cooking process, and we are losing that
This issue was addressed in the South Australian Well Women Project, which extensively involved female inmates in food services and focused on individual responsibility for their own health. The success of that initiative was demonstrated through outcomes such as improved nutritional status of women, increased inmate knowledge and skills, and improved food services (Nikolas, 2000).

**Meal times**
- You get fed at three thirty in the afternoon, you’re not really wanting to eat your dinner at three thirty in the afternoon but you have to because it’s hot and you’re locked in your cell

In centres A and C the last two meals are served at approximately 12:00noon and 3:00pm. The timing of the final meal was not well accepted by the inmates, although they were aware of the restrictions and the fact that they do not have the luxury of choosing when it is served. The lack of control over meals by inmates can be seen as part of the process of reinforcing their lack of power and identity within the institution (Godderis, 2006b).

**Culture**
- They can’t cater for Muslims anymore, you’re classified automatically as vegetarian
- Even if you give us Asian food on a tray it won’t be eaten cause we prefer to cook our own

Cultural buy-ups were available every six months for Asian inmates and once a year for Muslim inmates. Both groups reported they relied heavily on these and would like them to be more frequent. Asians reported that even if the meals included dishes they would traditionally consume, the European way of preparing them was different and they would not eat it anyway. Instead they use foodstuffs obtained through the buy-up to cook a meal. There was some discontent from other groups who felt that it was unfair that Asians Muslims received additional opportunities to purchase special foods when they did not.

**Discussion**

The analysis of the menus showed that the inmates were provided with a well varied selection of foods which met the majority of nutritional requirements. This finding is similar to those of a recent survey in British prisons (National Audit Office, 2006). An additional of half serving of fruit per day on the menu would be needed in order to meet current Australian guidelines of 2 serves. This would be well accepted by the inmates who also requested more fruit each day in the focus group discussions. However there are policy limitations on the amount types of fruit (and other fermentable foods like sugar) allowed to be provided, in order to prevent their use by inmates as a base for the production of alcoholic beverages.

However the nutritional analysis assumed that all of the food provided was eaten by the prisoners, whereas many of the focus group participants suggested that a lot of the food was not eaten or is supplemented with food prepared from buy-ups. Furthermore, the nutritional profile of the food may be less than was assumed, due to delays between food production and service, long holding times, and subsequent re-heating, or re-use in cooking. Given the significant degree of reported food wastage, a quantitative analysis on food wastage is needed to assess these issues more completely.

The constraints of a prison setting and its security requirements set significant limits on the results from the focus groups. Correctional staff selected the majority of the participants, so there is a potential bias toward those who would be the most cooperative
or vocal. Furthermore, the dynamics of the group could also have an impact, with overwhelming personalities sometimes dominating the direction and opinion of a group. In future work, one-on-one interviews with inmates might provide more accurate results about their views.

The personal expectations of particular meals or food items, as well as comparisons made with what and how food is eaten and prepared outside of the correctional centre, are likely to have a significant impact on the inmates’ generally negative attitude towards the food. Furthermore, as in many other institutional settings - such as schools or hospitals - complaints about food can become normally expected behaviour, and may reflect general frustrations with lack of control over surroundings, rather than being an accurate reflection on the quality of the food service provided. In a UK study conducted with women prisoners, the majority commented that they were dissatisfied with the food service, but acknowledged that the food was not that unpalatable (Smith, 2002).

The results are important in highlighting possible issues of food safety related to the early times at which inmates are locked down in the evening. How the inmates are storing food items and meals, and many of their current practices could be posing unacceptable risks. A review is required to assess the adequacy of food storage and refrigeration facilities.

Conclusions

It was not possible from this study to evaluate whether all the issues raised in the focus groups were factually based, or represent generalised complaints that are unlikely to be able to be addressed. Complaints are likely to be influenced by factors that are not under the control of the food service managers, such as meal times, limitations of foods allowed, and the eating environment. As in many institutions, criticism of food becomes normally expected behaviour and cannot be the sole method of evaluation of the quality of the service. However a number of issues warrant further investigation and some possible changes to service were suggested.

The key findings were that inmates are generally critical of how the food is prepared, meal quality (taste, appearance, texture and temperature) and the timing of the meals, reporting high levels of waste. There is an extensive use of rice cookers to prepare food that is removed from meals and food that is purchased on buy-ups. Buy-ups are an important issue for the inmates which they feel needs improvement. There is also frustration towards the lack of variety and choice on the menu.

Food safety matters relating to the storage of food are highlighted as a major area of concern, stressing the need for a risk assessment and review on the adequacy of refrigeration, storage and cooking facilities. It was recommended that inmate food preferences continue to be taken into account in future menu reviews, and that the inmates are involved in commenting on the food and provided with feedback on how their views are addressed.

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