Potential public health importance of the oven ready chip

D Rowland, I Roberts

Background: Chip pan fires are responsible for 25% of fire related injury in the UK, despite government strategies to encourage safer frying. To establish the feasibility of promoting oven ready chips (fries), the residents in a materially deprived ward of London were surveyed.

Sample frame: 1073 of 2145 households participating in a randomised controlled trial.

Results: Approximately half of those surveyed deep fry, mostly chips, fish, and meat. Ownership of ovens and microwaves was high (99% and 80% respectively). Reasons for deep frying included taste (50%), speed (32%), and tradition (25%).

Conclusions: Improving the quality of oven baked alternatives may encourage consumers to change to safer and healthier cooking methods, with potentially important repercussions for public health.

<table>
<thead>
<tr>
<th>Deep fried foods*</th>
<th>No (%)</th>
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<tbody>
<tr>
<td>Chips</td>
<td>465 (89)</td>
</tr>
<tr>
<td>Meat/fish</td>
<td>350 (67)</td>
</tr>
<tr>
<td>Bhaji</td>
<td>111 (21)</td>
</tr>
<tr>
<td>Vegetables</td>
<td>4 (1)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (1)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasons for frying*</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taste</td>
<td>263 (50)</td>
</tr>
<tr>
<td>Quick and easy</td>
<td>166 (32)</td>
</tr>
<tr>
<td>Traditional</td>
<td>128 (25)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>9 (2)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (1)</td>
</tr>
</tbody>
</table>

*Not mutually exclusive.

In the year 2000, there were an estimated 447 fire related deaths, and 14 400 fire related injuries within dwellings in the UK, with chip pan fires accounting for 25% of non-fatal injuries. Despite a general long term fall in the numbers of fire related deaths and injuries over the last three decades, there remains a steep social class gradient. A child in social class V is 16 times more likely to die in a fire than a child in social class I.

Government campaigns such as the recent “Fire safety in the home” strategy have focused on the promotion of safer deep fat frying. An alternative strategy could be the promotion of oven ready, or microwave, chips (french fries). These chips do not need hot oil for cooking and are therefore likely to be safer in relation to domestic fire risk. Oven ready chips also contain less fat than the home fried chip (4.2 g v 6.7 g per 100 g on average) and could be promoted as the healthier alternative.

To establish the feasibility of promoting oven ready chips as a fire prevention strategy, we conducted a survey of frying behaviour and attitudes of tenants in low income, multiethnic households.

PARTICIPANTS, METHODS, AND RESULTS

The sampling frame for the survey was the 2145 households participating in a randomised controlled trial of a smoke alarm installation programme (reported elsewhere) within a materially deprived, ethnically mixed, ward of the London Borough of Camden. In this trial, 95% of households were successfully followed up, of whom the first 50% were asked to participate in the semistructured questionnaire. The questionnaire aimed to elicit information on tenants’ frying behaviour, attitudes to deep frying food, and the ownership of kitchen appliances that may influence tenants’ choice of cooking method—for example, freezer compartments for the storage of oven ready chips, oven or microwave in which to cook them.

Of 1073 households visited, 1072 (>99%) agreed to participate. Of these, 521 (49%) deep fried food, of whom 7% deep fried daily, 69% deep fried weekly, and 23% deep fried on a monthly or more basis. Foods most often deep fried, and reasons given for deep frying, are given in table 1. Of the frying households, 89% stated they deep fried chips, with 67% deep frying fish and meat. Reasons stated by tenants for frying included taste of the food (50%), the ease and speed of deep frying (32%), and because it was a traditional method of cooking (23%).

Tenant ownership of kitchen appliances was high, with over 99% of deep frying households owning refrigerators, freezers, and ovens. Microwave ownership was slightly lower at 80%, with 31% owning deep fat fryers. Frying related accidents were experienced by 11 (2%) of the frying households, of whom seven had pan fires and the remainder split hot oil.

COMMENT

Almost half of the surveyed households deep fried, some on a daily basis, with the majority frying chips. Taste and ease of cooking were the most commonly cited reasons for deep frying. It would appear that the choice was not governed by a lack of access to kitchen appliances such as freezers, ovens, and microwaves.

In disadvantaged communities such as the one surveyed, occupants are at high risk of domestic fires. Despite high pro- file government campaigns, chip pan fires continue to be the single largest cause of casualties in house fires. Changing cooking behaviour in low income households may be feasible if the alternatives provide the same quality and convenience as home fried food and at an acceptable price. Food manufacturers should be encouraged to produce tasty, easy to cook versions of current products on the market, while keeping the costs to consumers at a minimum. With coronary heart disease a leading cause of death within the UK, promoting a lower fat alternative to the deep fried chip has added health benefits. A potential decrease in the numbers choosing to deep fry, alongside alternative fire prevention strategies (for example, pan design, labelling of flammable oils) may have important repercussions for public health in the UK.
ACKNOWLEDGEMENTS
The authors wish to thank Charlotte Seirberg for her contribution to implementing the survey and the tenants of Camden’s Regent's Park Estate and Somers Town Estate for their support by participating in the survey. We acknowledge the assistance of Camden Housing Department for their support throughout the study.

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REFERENCES

“Warning: life is dangerous”

Councilor George Newhouse suggests a sign in place of lifeguards, after Australia’s Supreme Court ordered a city council to pay $2m ($US1.1m) to a swimmer who was paralysed in a diving accident in a patrolled area of Bondi Beach, Sydney (Far Eastern Economic Review, May 2002).

Fines on ability to pay?
It has long been a concern that road related fines have a disproportionate affect on low income individuals and little effect on high income individuals. The following report presents a story from Finland where fines are scaled according to ability to pay, leading to cases where individuals have been fined US$50 000 for speeding.

At 46 miles an hour, he didn’t set any land speed records. But Nokia executive Anssa Vanjoki could set the record for the costliest ever speeding ticket—a $103 000 fine. He was fined for speeding on a motorcycle in a 31 mph zone on an island near Helsinki last October, chief police inspector Olli Yliskoski said.

In Finland, traffic fines are not just based on the seriousness of the infringement, they’re also tied to the offender’s income, and there’s no limit. Worse for Vanjoki, his fine was based on his net income in 1999, when he reportedly made $5.2 million because of option sales. He has appealed for the fine to be based on his lower year 2000 income.

In a similar incident last year, a Helsinki court slashed a traffic fine levied against internet millionaire Jaakko Rytso for switching lanes too often. It was cut from $45 000 to $119 after his income showed a dramatic drop. Earlier, Rytsola paid a $74 600 traffic fine, reportedly the highest ever in Finland.

Yliskoski said Finnish authorities are considering changing the way incomes are used in determining the fines. “They should be proportioned to the danger afflicted”, he said. “If you fine somebody on the grounds of incomes peaking a certain year it can grow unreasonable” (based on www.newsjournalonline.com/2002/Jan/16/NOTE1.htm; Daytona Beach News Journal, January 2002).