Consumer perceptions and intakes of garlic as a cardio-protective food

Aston-Morgan, M and Wickett, H
Centre of Nutrition and Dietetics, Cardiff, Metropolitan University Cardiff, CF5 2YB
Contact: Wickett, H. hwickett@cardiffmet.ac.uk

Background
Cardiovascular disease (CVD) is a major public health concern as it is the leading cause of death worldwide (Rolfes et al, 2015). Garlic has been suggested to have potential preventive effect on CVD risk factors. Nevertheless, there is not sufficiently strong evidence to be in NICE CVD guidelines alongside fruit and vegetables, oily fish and unsalted nuts (NICE, 2010). The optimum dosage and form of garlic for the treatment of hypertension and preventing CVD has yet to be established (Wilburn et al, 2004). However, the dosage of garlic supplements in most studies that have been conducted was 600mg-900mg (Ried et al, 2014) equivalent to 2-3 garlic cloves.

Previous research has shown garlic intake in the UK is lower than the suggested amount to help reduce cholesterol and BP (Shouk et al, 2014). This may be due to a lack of consumer awareness of garlic intake and CVD prevention compared to other cardio-protective foods as well as barriers to consumption. However, there is currently a lack of evidence exploring barriers to consumption, consumer perceptions, and intakes of garlic as a cardio-protective food.

Therefore, the aim of this study is to explore consumer perceptions and intakes of garlic as a cardio-protective food.

Methods
A cross-sectional study of 45 adults aged 18-60 years was undertaken using a self-administrated questionnaire to explore participant’s current intakes and perceptions of garlic as a cardio-protective food.

Results
The participants were predominantly female 67% (n=30) and aged between 18-60 years of which 27% (n=12) had health problems. 82% of participants liked garlic, however only 47% consume garlic. Younger participants (18-39 years) are more likely to like and consume garlic compared to older participants, however this was not statistically significant (p=0.446). The study established that pre-chopped and garlic-powder was most commonly consumed forms of garlic. The main barriers to garlic consumption is that participants are unsure how to cook 29% (n=7) and unsure what to add garlic to 29% (n=7). Only 17% (n=4) of participants stated that bad odour was a barrier to the consumption of garlic.

Figure 1 showed consumers perceived fruit and vegetables to be the most effective cardio-protective food, followed by oily fish, then soya, then unsalted nuts, with garlic the least effective.

Figure 1 showed consumers perceived fruit and vegetables to be the most effective cardio-protective food, followed by oily fish, then soya, then unsalted nuts, with garlic the least effective.

<table>
<thead>
<tr>
<th>Least effective</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Most effective</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit and vegetables</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>29% (n=13)</td>
<td>71% (n=32)</td>
<td></td>
</tr>
<tr>
<td>Garlic</td>
<td>89% (n=40)</td>
<td>4% (n=2)</td>
<td>7% (n=3)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Unsalted nuts</td>
<td>0</td>
<td>84% (n=38)</td>
<td>13% (n=6)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Soya products</td>
<td>9% (n=4)</td>
<td>9% (n=4)</td>
<td>82% (n=37)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Oily fish</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>73% (n=33)</td>
<td>27% (n=12)</td>
<td></td>
</tr>
</tbody>
</table>

In conclusion, this study has highlighted a greater need for consumer awareness of garlic and its health benefits as a cardio-protective food. Regular garlic intake is likely to provide benefits to preventing CVD in addition to other cardio-protective foods in the diet to help prevent CVD due to its lipid and BP lowering effects, low risk and toxicity. However, due to the strength of evidence its role as a main therapeutic agent cannot be recommended and it is suggested that further research is needed, particularly to establish an optimum dose and form of garlic.

References


