Vegetarian Weaning: A content analysis of the Accuracy and Quality of advice available on the Internet.

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Background

It is widely recognised that a healthy diet and lifestyle can enhance quality and longevity of life (Heidemann et al., 2008; NHS, 2017). Some individuals may choose to follow alternative diets such as vegetarianism to enhance their health (Patience, 2013). The number of UK vegetarians is rising (Thane & Bates, 2000 & Clarys et al, 2014) therefore information regarding vegetarian weaning is needed to support the critical growth and developmental periods of infancy (Genova & Gudy, 2007 & Ferrara et al, 2017).

The Internet is often identified as a primary source of data for individuals seeking health information (Leiflers et al., 2014 & Kennedy et al., 2016) particularly in relation to infants (Bensley et al., 2014). Whilst accurate information on vegetarian weaning is available in health publications and on the WHO, DoH and NHS websites, the quality and accuracy of nutritional advice relating to vegetarian weaning found on the Internet is largely unknown therefore, the aim of this study was therefore to analyse the accuracy and quality of advice regarding L, VW, available to UK parents online.

Methods

A Cross-Sectional analysis of n=20 systematically sampled webpages. Two research tools assessing the overall accuracy and quality on webpage information were devised based on validated online health information quality instruments and nutritional guidelines from the UK leading advisory bodies; WHO, NICE, BDA & NHS.

To obtain an authentic example of websites available to UK parents, the first 20 webpages of results from three keyword searches were used. “Vegetarian Weaning”, “Vegetarian Infants” and “Weaning onto a Vegetarian Diet”. Webpages ranged across 4 categories; HCW, HCJ, VW, and PW. 60% of webpages were from UK origin compared to 40% overseas webpages.

Results

The combined overall score for accuracy and quality was health care professionals 70%, non-health care professionals 51%. Information provided by health care professionals, scored 80% for accuracy and 62% Quality. Non health care professionals scored 52% for accuracy and 50% for quality.

Overall scores varied between the four categories, whilst HCW/HCJ had higher overall scores, the likelihood of parents accessing, understanding and obtaining sufficient information was low due to complex information and unobtainable FRE reading scores on 80% of webpages.

Statistical analysis tests for the overall quality were not significant.

In conclusion, although webpages tended to cover protein, iron and planning, they did not reflect the recommendations of the authoritative bodies; DoH (1988), WHO (2004 & 2005), NICE (2014), BDA (2016) & SACN (2017). Improvements could be made to develop specific standards/quality control methods, to improve overall accuracy and quality of online information in relation to L, VW.

Table 1: Comparison between the Overall Accuracy of HC and NHCP Webpages

<table>
<thead>
<tr>
<th>Category</th>
<th>(HC) HCW/HCI %</th>
<th>(NHCP) PW/VW %</th>
<th>Significance</th>
<th>Null Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>98</td>
<td>47</td>
<td>P=0.0001</td>
<td>Reject</td>
</tr>
<tr>
<td>Evidence Base</td>
<td>85</td>
<td>67</td>
<td>P=0.0671</td>
<td>Retain</td>
</tr>
<tr>
<td>Reliability</td>
<td>67</td>
<td>37</td>
<td>P=0.0101</td>
<td>Reject</td>
</tr>
<tr>
<td>Validity</td>
<td>64</td>
<td>25</td>
<td>P=0.0061</td>
<td>Reject</td>
</tr>
<tr>
<td>Readability</td>
<td>57</td>
<td>56</td>
<td>P=1.0000</td>
<td>Retain</td>
</tr>
<tr>
<td>Overall Total</td>
<td>80</td>
<td>52</td>
<td>P=0.0020</td>
<td>Reject</td>
</tr>
</tbody>
</table>

The average accuracy score was 67%, significant differences of webpages were observed between health care professional sites (HCP) and those from non health care professional sites (NHCP). The average scores were 80% and 52 respectively. FRE scores showed only 20% of webpages met the ONS (2017) website reading ease recommendation.

Discussion and Conclusion

The combined overall score for accuracy and quality was 70% for HCP and 51% NHCP. The HCP webpages were of higher accuracy and quality than NHCP webpages.

Overall scores varied between the four categories, whilst HCW/HCJ had higher overall scores, the likelihood of parents accessing, understanding and obtaining sufficient information was low due to complex information and unobtainable FRE reading scores on 80% of webpages.

References


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