Impact of an evidence based e-learning on osteopaths’ attitudes, knowledge and beliefs towards evidence-based headache management.

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Keywords
Attitudes, knowledge, beliefs, computer-assisted instruction, evidence-based practice, osteopathic medicine, headaches.

Methods
Participants included were volunteers of the European School of Osteopathy (ESO) fourth year cohort of the 2019-2020 academic year. They were all offered to complete the e-learning over the year, on a voluntary basis, prior to this study. They were sent a version of Jette et al.’s (2003) questionnaire, modified for the osteopathic profession and headaches.

Two groups were contrived: one with the participants who completed the e-learning, and the other with the participants who did not complete the e-learning.

A score was calculated based on the answers of the respondents and analysed using a Mann-Whitney U Test.

Results
Questionnaires were sent to 65 people and returned by 34 respondents (response rate: 52.3%).

<table>
<thead>
<tr>
<th>Gender</th>
<th>E-learning group (n=34)</th>
<th>No E-learning group (n=31)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>22 (64.7%)</td>
<td>12 (38.7%)</td>
<td>34</td>
</tr>
<tr>
<td>Male</td>
<td>12 (35.3%)</td>
<td>20 (61.3%)</td>
<td>32</td>
</tr>
</tbody>
</table>

A notable limitation of this study is that the questionnaire could not be sent before the e-learning and used as an independent measure. This is an observational study, therefore no cause and effect can be established. The results can only be interpreted as a tendency. Furthermore, the cohort had not been randomised.

One could also argue that the intervention group was predominantly composed of subjects inherently interested in EBHM - given that the e-learning was on a voluntary basis - which would constitute a selection bias.

Design
This study was conducted as a cross-sectional survey.

Background
Headaches are ubiquitous, they can reach a lifetime prevalence of more than 90% depending on the studied population (Steiner et al. 2004). Although they have no impact on mortality, they cause more Disability-Adjusted Life Years (DALYs) worldwide than all other neurological disorders combined (GBD 2015).

High-quality studies and guidelines for headaches management exist (NICE 2012; Steiner et al. 2019; BASH 2019), but awareness of them is suboptimal within the osteopathic profession (Mahtani 2019).

Moreover, guidelines are perceived unequally among osteopaths (Weber & Rajendran 2018), with many osteopaths choosing to follow expert opinions rather than best evidence available (Figg-Latham & Rajendran, 2017). Furthermore, as in physical therapy (Dale et al., 2019), there is a need for further education, training activities, and profession-specific guidelines in the osteopathic profession (Mahtani 2019).

The implementation of an e-learning on evidence-based headaches management (EBHM) could possibly bring about a change in osteopaths’ attitudes, knowledge and beliefs towards evidence-based headache management. An e-learning was developed and put at European School of Osteopathy (ESO) students’ disposal to this effect.

Research question
Does the completion of an e-learning bring about a change in osteopaths’ attitudes, knowledge and beliefs towards EBHM?

Discussion
This is the first study describing the impact of this e-learning on osteopaths’ attitudes, knowledge, and beliefs about EBHM.

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