

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.

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?

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.

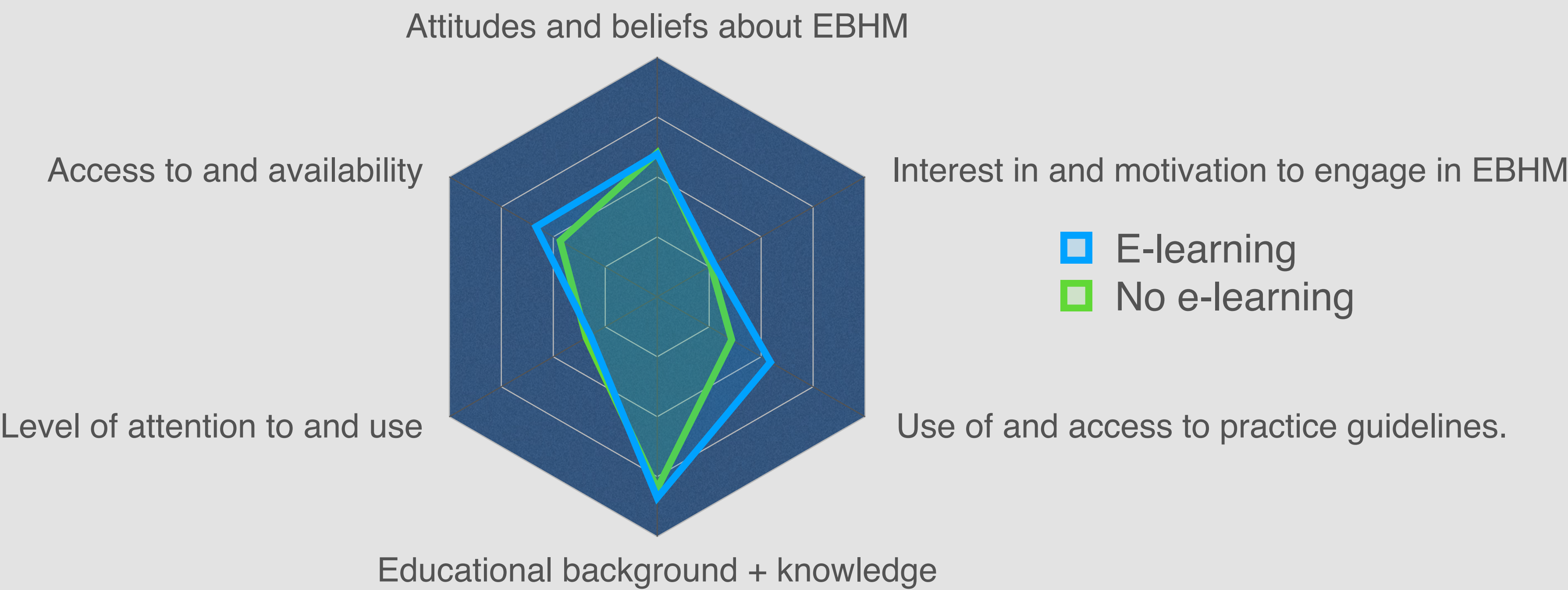
Two groups were contrived: one with the participants who completed the e-learning, and the other with the participants who did not complete the e-learning. A score was calculated based on the answers of the respondents and analysed using a Mann-Whitney U Test.

Results

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

		E-Learning group (n=14)		No E-Learning group (n=20)		Total	
		Number	%	Number	%	Number	%
Gender	Female	10	71.4 %	13	65.0 %	23	67.6 %
	Male	4	28.6 %	7	35.0 %	11	32.4 %
Age	20-29 y	8	57.1 %	15	75.0 %	23	67.6 %
	30-39 y	4	28.6 %	3	15.0 %	7	20.6 %
	40-49 y	2	14.3 %	2	10.0 %	4	11.8 %
	≥50 y	0	0.0 %	0	0.0 %	0	0.0 %
Highest degree	Masters	14	100.0 %	19	95.0 %	33	97.1 %
	PhD	0	0.0 %	1	5.0 %	1	2.9 %
Working hours / week	≤20h	7	50.0 %	6	30.0 %	13	38.2 %
	20-30h	5	35.7 %	7	35.0 %	12	35.3 %
	31-40h	1	7.1 %	6	30.0 %	7	20.6 %
	≥40h	1	7.1 %	1	5.0 %	2	5.9 %
Patients/ day	≤5	7	50.0 %	7	35.0 %	14	41.2 %
	5-10	6	42.9 %	11	55.0 %	17	50.0 %
	11-15	0	0.0 %	2	10.0 %	2	5.9 %
	≥15	1	7.1 %	0	0.0 %	1	2.9 %
Setting	Rural	3	21.4 %	4	20.0 %	7	20.6 %
	Urban	6	42.9 %	7	35.0 %	13	38.2 %
	Suburban	4	28.6 %	8	40.0 %	12	35.3 %
Participati on to headaches clinic	No	4	28.6 %	10	50.0 %	14	41.2 %
	1 to 3 times	4	28.6 %	7	35.0 %	11	32.4 %
	more than 3 times	6	42.9 %	4	20.0 %	10	29.4 %

Table 1: Sample demographics



Categories:

Attitudes and beliefs about EBHM

Interest in and motivation to engage in EBHM

Educational background and knowledge and skills related to accessing and interpreting information

Level of attention to and use of the literature

Access to and availability of information to promote EBHM

Use of and access to practice guidelines.

Figure 2: Mean scores for each category

Participants who completed the e-learning had significantly better scores onto two categories of the questionnaire: ‘access to and availability of information to promote EBHM’, and ‘use and access to practice guidelines’.

This was highlighted by two questions in particular which showed a significant difference between the two groups: being aware that headaches-related guidelines were available online ($p=0.046$) and being aware that practice guidelines were available for headache-related management ($p=0.005$).

Discussion

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

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.

This e-learning is a first step towards adherence to clinical guidelines, according to the awareness-to-adherence model (Pathman et al. 1996).

Further qualitative research is needed to understand the perceptions and attitudes of osteopaths towards EBHM.

Conclusion

Completing this e-learning is associated with a tendency towards an increased awareness of EBHM and guidelines with regards to headache management, it is a first step towards behavioural change and improved uptake of guidelines.

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