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# Explaining use of complementary and alternative medicine in Irritable Bowel Syndrome: a common-sense model approach.

Lee Usher<sup>1</sup>, Pauline Fox<sup>1</sup> and Kathryn Mitchell<sup>2</sup>.

<sup>1</sup>University of West London.

<sup>2</sup>University of Derby.

Correspondence to: Lee.Usher@uwl.ac.uk

## BACKGROUND

Irritable Bowel Syndrome (IBS) is a chronic functional gastrointestinal disorder that has substantial impact on quality of life.

Up to 50% of those affected use complementary and alternative medicine (CAM) (Kong et al., 2005) despite the fact any benefits of CAM have yet to be fully demonstrated by primary research data. Conversely there is evidence to show psychological intervention is beneficial in terms of improved quality of life (Jarret et al., 2009).

In the absence of established aetiology illness perceptions have been implicated in the maintenance of symptoms and healthcare seeking (van Dulmen, Fennis & Blijenberg, 1998).

In general populations, illness and treatment (including CAM) perceptions have been shown to influence CAM use (Bishop, Lewith & Yardley, 2006).

Establishing distinct elements of illness and treatment perceptions which are influential in CAM use, using the common-sense model of illness representations (CSM, Leventhal, Brissette & Leventhal, 2003), may indicate where psychological intervention could be directed to potentially help relieve troublesome symptoms. CSM based interventions have resulted in positive outcomes (e.g. Broadbent et al., 2009).

## AIMS

Using an 'extended' CSM framework (e.g. Bishop et al., 2006) the aims of the study were: 1) examine prevalence of CAM use in those affected by IBS; 2) to examine differences between CAM-users and non-users on measures of illness and treatment perceptions; 3) to examine which demographic, illness and treatment perceptions predicted CAM use.

**Table 1: Descriptive statistics and t-tests for differences on CSM scale variables between CAM-users and non-users with IBS (significant effects in bold)**

Variable	CAM use y/n	Mean	SD	t-value
Age	No (n=260)	37.33	13.52	.21
	Yes (n=350)	37.11	12.63	
<b>Identity</b>	No	<b>5.60</b>	2.76	<b>-3.54***</b>
	Yes	<b>6.40</b>	2.76	
Timeline Chronic	No	24.65	3.75	-1.03
	Yes	24.96	3.81	
<b>Timeline Cyclical</b>	No	<b>14.76</b>	2.89	<b>-2.56*</b>
	Yes	<b>15.34</b>	2.71	
<b>Consequences</b>	No	<b>20.90</b>	4.63	<b>-4.08***</b>
	Yes	<b>22.39</b>	4.28	
Personal control	No	19.41	4.36	-.60
	Yes	19.65	4.65	
Treatment control	No	14.22	3.81	-.56
	Yes	14.40	3.93	
Illness coherence	No	13.92	4.76	-.60
	Yes	14.17	5.42	
<b>Emotional representations</b>	No	<b>21.54</b>	5.31	<b>-3.21**</b>
	Yes	<b>22.87</b>	4.92	
Internal cause	No	21.16	5.78	-1.31
	Yes	21.82	6.35	
External cause	No	14.84	4.02	.08
	Yes	14.86	3.84	
Cause - risk factors	No	9.80	3.10	1.50
	Yes	9.41	3.14	
<b>BMQ Harm</b>	No	<b>11.91</b>	3.14	<b>-4.18***</b>
	Yes	<b>13.00</b>	3.18	
BMQ Overuse	No	9.80	2.87	-1.43
	Yes	10.13	2.87	
<b>CAMBI Natural treatments</b>	No	<b>21.40</b>	3.28	<b>-2.49*</b>
	Yes	<b>22.08</b>	3.43	
<b>CAMBI treatment participation</b>	No	<b>19.02</b>	2.73	<b>-2.89**</b>
	Yes	<b>19.66</b>	2.67	
<b>CAMBI holistic health</b>	No	<b>21.25</b>	3.64	<b>-2.81**</b>
	Yes	<b>22.07</b>	3.48	

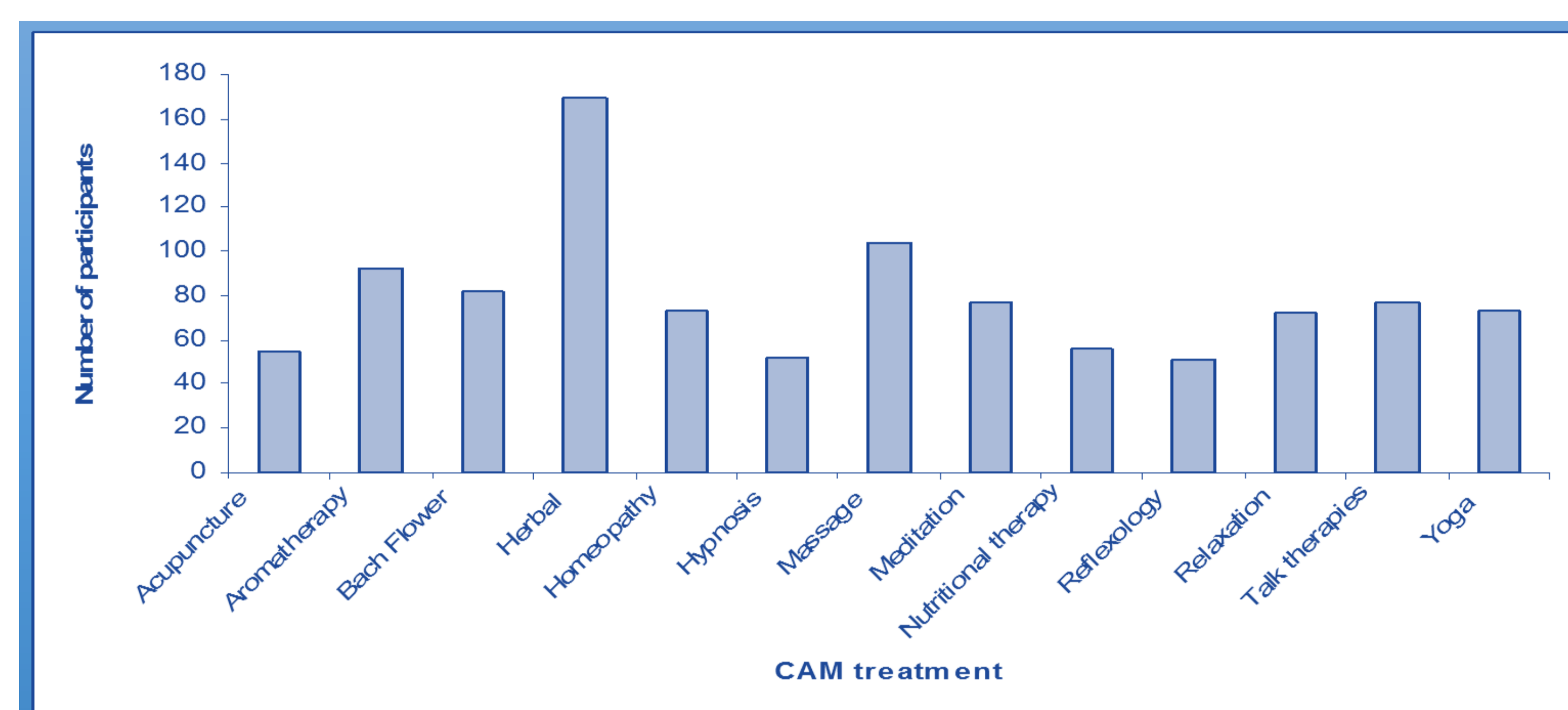
\*p<.05 \*\*p<.01 \*\*\*p<.001

## METHOD

653 participants with IBS completed an online survey, of which 546 (83.6%) were female. 93.7% indicated they had been diagnosed with IBS.

Participants completed the Revised Illness Perception Questionnaire (IPQ-R) (Moss-Morris et al., 2002), the Beliefs about Medicines Questionnaire (BMQ-General) (Horne, Weinman & Hankins, 1999), the Complementary and Alternative Medicines Beliefs Inventory (CAMBI) (Bishop, Yardley & Lewith, 2005) and questions regarding CAM use.

Unrelated t-tests compared illness and treatment perceptions of CAM-users compared to those not using CAM. A binary logistic regression examined which factors predicted CAM use.



**Figure 1: Reported use of different CAM modalities in CAM-users with IBS (n=373)**

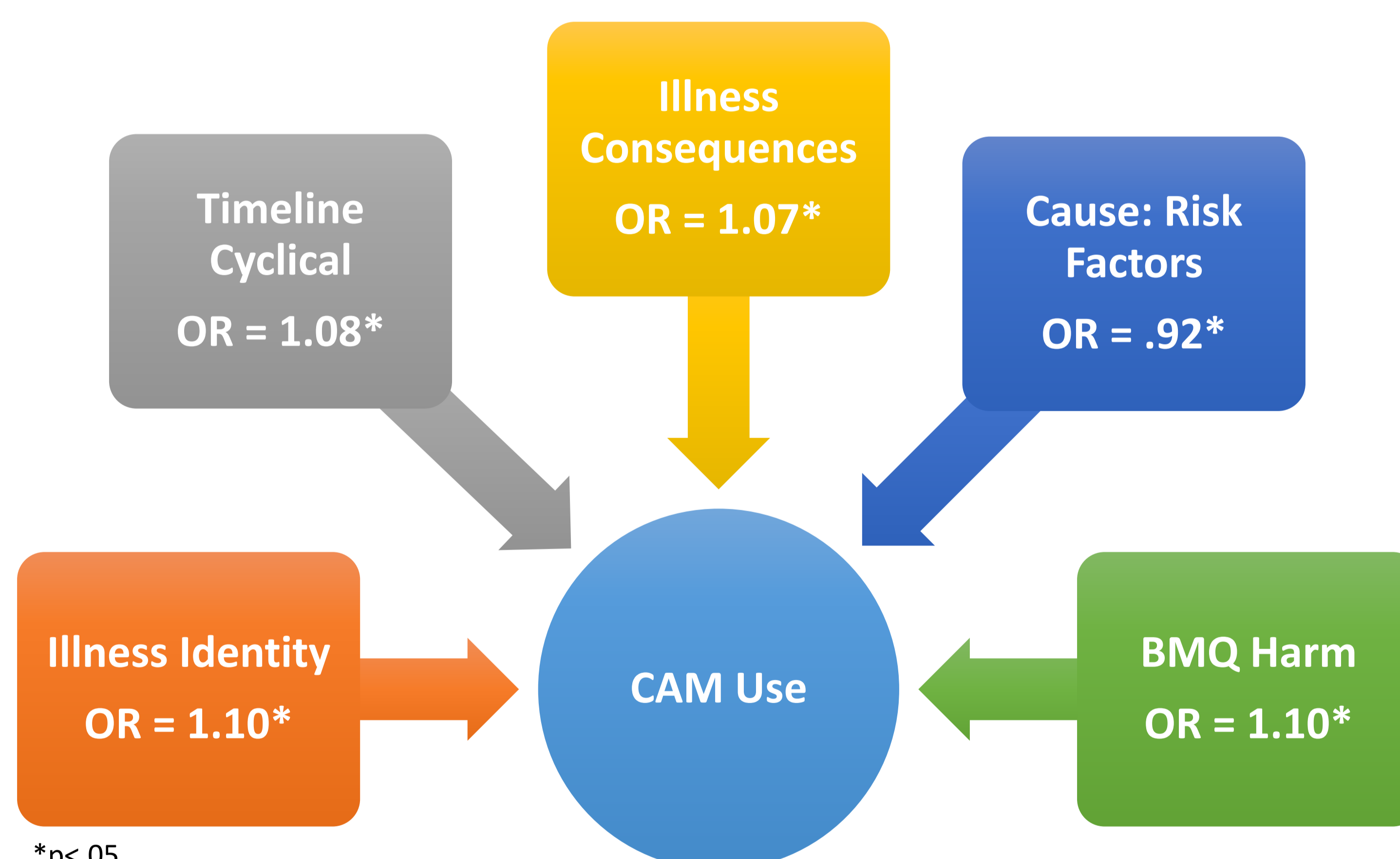
## FINDINGS

57% of participants reported using at least one form of CAM to relieve IBS symptoms. The most popular CAM treatment was Herbal treatments (Figure 1).

CAM-users reported significantly stronger illness identity, illness consequences, medication harm beliefs and stronger emotional representations. CAM-users also had more positive beliefs about CAM (Table 1).

Binary logistic regression analysis revealed 3-4 years (Odds ratio = 3.62) or over 5 years (3.19) since diagnosis (compared to past 12 months diagnosis), having A' levels (1.89) or postgraduate qualifications (2.34) (compared to GCSEs) predicted CAM use (all p<.05).

Stronger illness identity (1.10), consequences (1.07), cyclical timeline beliefs (1.08) and medication harm beliefs (1.10) predicted CAM use. Stronger perceptions of risk factors (e.g. smoking) resulted in a reduced likelihood of CAM use (Figure 2).



**Figure 2: Odds Ratios (OR) for illness and treatment perceptions that significantly predicted CAM use.**

## CONCLUSIONS

Health psychology interventions which address components implicated in influencing CAM use may have potential to improve IBS symptom management and support patient's informed decision making regarding treatment.

Intervention could be targeted at perceptions of consequences and emotional response in those affected by IBS. It is possible CAM-users may gain the greatest benefit from such intervention.

In consideration of some of the CAM used (Figure 1), CAM-users may be attempting to treat a perceived cause e.g. stress. Findings also offer some statistical support for supposition of the CSM in terms illness and treatment perceptions influencing a specific coping procedure in CAM use.

Future studies could investigate participant 'subgroups' (e.g. newly diagnosed with IBS), IBS subtypes, users of different CAM modalities and influences on CAM beliefs.

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