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Complementary and alternative medicine

Representation in popular magazines

Background

More than half the patients who use complementary and alternative medicine (CAM) in Australia do not discuss it with their doctors. Many consumers use popular media, especially women's magazines, to learn about CAM.

Aim

To explore representations of CAM in popular Australian women's magazines.

Method

Content analysis of three Australian magazines: Australian Women's Weekly, Dolly and New Idea published from January to June 2008.

Results

Of 220 references to CAM (4–17 references per issue), most were to biologically based practices, particularly 'functional foods', which enhance health. Most representations of CAM were positive (81.3% positive, 16.4% neutral, 2.3% negative). Explanations of modes of action of CAM tended to be biological but relatively superficial.

Discussion

Australian magazines cast CAM as safe therapy which enhances patient engagement in healthcare, and works in ways analogous to orthodox medical treatments. General practitioners can use discussions with their patients about CAM to encourage health promoting practices.

Keywords: complementary therapies; periodicals as a topic



Each year Australians spend over \$4 billion on complementary and alternative medicine (CAM) and visit CAM practitioners almost as frequently as they do medical practitioners.¹ However, less than half of consumers of CAM have discussed their use with medical practitioners,¹ indicating that doctors are not significant sources of consumer information about CAM.

The typical CAM user is a woman, 18–34 years of age, who is employed and well educated.² Evidence from other countries suggests that magazines are likely to be important sources of information about CAM.^{3,4} Print media, particularly magazines, are known to be a source of information on health and nutrition⁵ for Australian consumers,⁶ and Australians are among the world's largest consumers of magazines.⁷ This study aimed to explore the frequency and content of representations of CAM in Australian women's magazines.

Method

Definition

Complementary and alternative medicine is defined by the National Institutes of Health's National Center for Complementary and Alternative Medicine (NCCAM), which states that complementary medicine encompasses all nonorthodox practices used along with conventional medicine, while alternative medicine is used in place of orthodox medicine. Subcategories of CAM used in this study followed the NCCAM's categorisations⁸ (Table 1).

Sample selection

The authors chose the magazines with the highest circulation from the two major publishers of women's magazines in Australia:

- Dolly (D) – ACP Magazines; top selling Australian magazine for teenage girls; circulation: 125 169⁹
- The Australian Women's Weekly (AWW) – ACP Magazines; top selling Australian magazine for women; circulation: 493 055¹⁰
- New Idea (NI) – Pacific Magazines; circulation: 330 116 per month.¹¹

All magazines were sourced through the National Library of Australia.

Study period

The study period was from January to June 2008. This timeframe was chosen because a pilot study in which lead stories were scanned for 1 year showed that 6 months was sufficient to capture representative data. This period encompassed 27 issues of NI, six issues of D, and six issues of AWW.

Coding

All text with any mention of CAM was identified and coded. The coding framework incorporated the following:

- the type and nature of the text about CAM
- the use of biological explanations for CAM
- the positioning of CAM as positive, negative or neutral.

As a quality assurance exercise, two researchers independently coded the same magazine texts and achieved 100% category coding concordance.

Analysis

A concept analysis was performed.^{12,13} All coded text was analysed twice: first for meaning, sense and relation of the text on CAM to its context; and second in summary form comparing the magazines and the positioning of CAM as positive or negative by the different people

Table 1. Domains of complementary and alternative medicine⁸

Domain	Examples
Whole medical systems	<ul style="list-style-type: none"> • Homeopathic medicine • Naturopathic medicine • Traditional Chinese medicine • Ayurveda
Mind-body medicine	<ul style="list-style-type: none"> • Meditation • Prayer • Mental healing • Yoga
Biologically based practices	<ul style="list-style-type: none"> • Dietary supplements • Herbal products • Diet based therapies • Folk medicines
Manipulative and body based practices	<ul style="list-style-type: none"> • Massage • Chiropractic practices • Osteopathic practices • Pilates
Energy medicine	<ul style="list-style-type: none"> • Reiki • Therapeutic touch • QiGong • Magnetic fields

making the representation (eg. doctors and celebrities). Chi-square analysis was used to compare dichotomous variables.

Results

There were 220 references to CAM during the period of the study. The highest rate of coverage of CAM was in AWW, with an average of 16.6 references to CAM per issue, compared to four references per issue in D, and 3.6 references per issue in NI (Table 2). In all articles, CAM tended to be mentioned in passing, rather than being the main subject. In AWW, only one of 31 stories mentioning CAM had it as the main topic of the article. There were no advertisements of CAM in D. By contrast, two-thirds of the references to CAM in AWW, and one-third in NI, were in advertisements.

Of the five CAM domains, biologically based practices was the largest category of CAM represented (Figure 1). This was mainly due to the emphasis on the use of functional foods or 'superfoods' as a means to better one's health. There were very few references to alternative medical systems, such as Chinese medicine, or to energy based CAM, such as Reiki. The types of CAM mentioned most

frequently tended to be those that fitted readily with traditional female responsibilities such as supervising a family's nutritional intake. Many of the advertisements in AWW and NI were aimed at mothers, and asserted that the CAM product was necessary if the mother wanted to improve opportunities for her child to have 'stronger teeth and bones' (NI, 5 April 2008), 'the very best nutrition' (NI, 19 April 2008), or 'a greater life' (NI, 26 January 2008).

Almost all the advertisements were for functional foods. References to the capacity of particular foods, such as 'nature's supergrains' or yoghurt, to provide an added health bonus to everyday life were equally distributed across advertisements and articles. These claims

often combined appeals to 'naturalness' and 'physical improvement'. Antioxidants that, 'protect the body from free-radical damage and boost immunity' (NI, 31 May 2008) were cited as protective element of foods ranging from tea to fruit. The value of biological CAM was viewed as self evident, so much so that in one article on household budgeting, advice was provided on how to buy cheaper vitamins (NI, 19 April 2008).

In most cases, references to CAM were positive (81.3% positive, 16.4% neutral, 2.3% negative). Medical professionals were more likely to be presented as disapproving of CAM than were nonmedical professionals (4/17 representations of CAM by a medical professional were negative; 1/203 nonmedical professional references were negative [$p < 0.0001$]). The negative representations made by medical professionals were often 'myth busting', as in the following example:

'The miracle claims of using liquid colloidal silver to eliminate bacterial infections and boost the immune system don't have any sound medical basis. In fact, long-term use can have serious irreversible health consequences.' (NI, 7 Jun 2008)

In an article on vitamin B12 injections given to Britney Spears and Madonna 'to maintain healthy nerves and blood cells', a doctor was quoted (in an article generally supportive of CAM) as saying, 'A B12 shot is thought to give you an energy boost or an energy high. But if you have a balanced diet, you don't need a supplement. There's no evidence they do much good. This is a fad of the rich and famous.' (NI, 15 March 2008)

Negative experiences with mainstream medicine were captured in accounts of people who were 'frustrated' (D, February 2008) and consulted CAM practitioners, or turned away from

Table 2. CAM representation in three Australian magazines – January to June 2008

	Dolly	Australian Women's Weekly	New Idea	Total
Number of issues	6	6	27	39
Number of pages	900	1380	3105	5385
References to CAM (percentage of total pages)*	24 (2.7%)	100 (7.2%)	96 (3.1%)	220 (4.1%)
* $p < 0.0001$ between the different magazines				

drugs with side effects: ‘natural treatments such as yoga are getting a big tick.’ (NI, 7 June 2008)

Another important type of CAM representation is celebrity endorsement. In D and AWW, 12% of references to CAM were about celebrity use, while 25% in NI – a magazine that focuses on celebrities more than the other two – were about celebrity use ($p=0.029$). Reports of the use of yoga and pilates by celebrities accounted for the majority of representations of mind/body and manipulative CAM in this study.

Explanations for the mode of action of CAM were rarely given, with effectiveness of the therapy in most cases being assumed. The types of CAM that received the most discussion about mechanisms of action were those in the category of biologically based practices (Figure 1). This reflects the emphasis on ‘superfoods’, which are intuitively amenable to a biological explanation of their mechanism of action. ‘Natural’ was often the totemic adjective used to describe these foods: ‘the natural way to help manage’ (NI, 24 May 2008); ‘the natural way to help regulate’ (NI, 7 June 2008); ‘natural solutions’ (NI, 31 May 2008); ‘natural, simple, safe and convenient’ (NI, 28 June 2008); ‘natural relief’ (AWW, June 2008).

Explanations for efficacy often occurred through reference to vague biological concepts, such as boosting the immune system or improving circulation. In an article entitled ‘Beet-ing high blood pressure’, the author asserts that ‘nitrate-rich beetroot’ will help maintain a healthy cardiovascular system (NI, 22 March 2008).

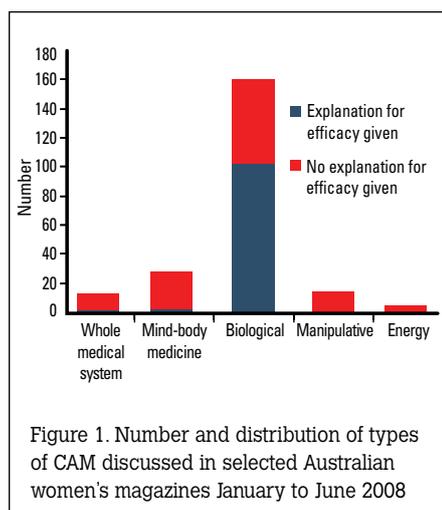


Figure 1. Number and distribution of types of CAM discussed in selected Australian women's magazines January to June 2008

The use of biological language tended to be used to lend medical authority, as did the appeal to evidence. The following text uses both biological concepts and the weight of evidence:

‘But wait, there’s more, studies have shown that laughter may boost your immune system, so you’ll be less likely to catch infections.’ (D, March 2008)

Discussion

Complementary and alternative medicine was presented very positively in the magazines reviewed in this study. This is in line with other studies that have found print media to offer a positive portrayal of CAM.⁴ The CAM category emphasised in the magazines we studied is the one with the most similarities to orthodox medicine, biologically based practices. There was very little coverage of types of CAM that use radically different notions of aetiology or illness, such as Ayurveda or GiQong.

The emphasis on ‘the added health boost’ of functional foods is similar to orthodox medicine’s discussion of the need for good nutrition and exercise. In his study of shiatsu users, Long¹⁴ argues that users developed critical health literacy, increasing their engagement in their own healthcare, exercise and good nutrition. In this study, the magazines under review focused strongly on characteristics of CAM which would promote a similar type of health literacy. Importantly, however, this study found that explanations for the efficacy and mode of action of CAM tended to be quite simplistic. Antioxidants were represented as health enhancing because they helped combat free radicals, but how free radicals operate was never explained.

It has been argued that CAM may undermine the willingness of users to engage in orthodox medical treatments, eg. consumers of CAM have been found to have more negative views of mental health interventions – from pharmaceutical to counselling.¹⁵

Overall, there were few stories where orthodox medicine and CAM were pitted against one another. Nevertheless, the representation in the magazines of doctors being distrustful or disrespectful of CAM may result in patients excluding doctors from discussions about merging CAM and orthodox treatments, a

tendency also noted in an Australian study of newspaper representations of CAM for cancer.¹⁶

It is important for medical professionals to discuss CAM with their patients, and inform them of what is known about its efficacy and safety, both the positive and the negative. The high rates of representation of biologically based practices provides an avenue for doctors to discuss current understanding of the biological modes of action of CAM. Such conversations about health promoting practices by patients can only benefit the patient-doctor relationship.

Study limitations

This study would have been more robust if two people had extracted and coded all the data independently. In addition, the study would have benefited if it had been extended to have a longer timeframe and incorporated a broader range of magazines.

Summary of main points

- Australians make almost as many visits to practitioners of CAM as they do to orthodox medical practitioners.
- Australian consumers often learn about CAM from popular media.
- Little is known of the ways in which CAM is represented to the public through the popular media.
- The Australian women’s magazines studied are highly positive about CAM.
- Biologically based foods are the most commonly mentioned type of CAM; they are presented as health enhancers.
- Biologically based CAM has some similarities to orthodox medicine in its representation.
- General practitioners should discuss CAM with their patients, including likely modes of action and efficacy.

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References

1. Xue CCL, Zhang AL, Lin V, et al. Complementary and alternative medicine use in Australia: a national population-based survey. *J Altern Complement Med* 2007;13:643–50.
2. MacLennan AH, Myers SP, Taylor AW. The continuing use of complementary and alternative medicine in South Australia: costs and beliefs in 2004. *Med J Aust* 2006;184:27–31.
3. Weeks L, Verhoef M, Scott C. Presenting the alternative: cancer and complementary and alternative medicine in the Canadian print media. *Support Care Cancer* 2007;15:931–38.
4. Weeks LC, Strudsholm T. A scoping review of research on complementary and alternative medicine (CAM) and the mass media: looking back, moving forward. *BMC Complement Altern Med* 2008;8:43–51.
5. Jones SC, Andrews KL, Tapsell L, et al. The extent and nature of 'health messages' in food advertising in Australia. *Asia Pac J Clin Nutr* 2008;17:317–24.
6. Edwards J, Chapman S. Using magazines for adolescent females as a vehicle for health promotion. *Health Promot J Austr* 2000;10:206–12.
7. Research and Markets. *Worldwide Media Representatives Industry Report, 2009*. Available at www.researchandmarkets.com/research/640ca2/2009_worldwide_med [Accessed 13 September 2009].
8. National Institutes of Health. National Center for Complementary and Alternative Medicine. CAM basics. 'What is CAM?' Available at <http://nccam.nih.gov/health/whatiscam/D347.pdf> [Accessed 10 March 2009].
9. ACP Magazines. Dolly. Available at www.acp.com.au/dolly.htm [Accessed 10 March 2009].
10. ACP Magazines. The Australian Women's Weekly. Available at www.acp.com.au/the_australian_womens_weekly.htm [Accessed 10 March 2009].
11. Pacific Magazines. New Idea. Available at www.pacificmagazines.com.au [Accessed 12 July 2010].
12. McTavish DG, Pirro E. Contextual content analysis. *Qual Quant* 1990;24:245–65.
13. Carley K. Content analysis. In: Asher RE, editor. *The encyclopedia of language and linguistics*. Edinburgh: Pergamon Press, 1990.
14. Long AF. The potential of complementary and alternative medicine in promoting well-being and critical health literacy: a prospective observational study of shiatsu. *BMC Complement Altern Med* 2009;9:19.
15. Jorm AF, Angermeyer M, Katschnig H. Public knowledge of and attitudes to mental disorders: a limiting factor in the optimal use of treatment services. In: Andrews G, Henderson S, editors. *Unmet needs in psychiatry: problems, resources, responses*. London: Cambridge University Press, 2000;399–416.
16. Mercurio R, Elliott JA. Trick or treat? Australian newspaper portrayal of complementary and alternative medicine for the treatment of cancer. *Support Care Cancer* 2009;DOI:10.1007/s00520-009-0790-4.

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