Advice given by health food shops: is it clinically safe?

ABSTRACT
Objective: To determine whether health shop staff give specific therapeutic recommendations to someone who describes symptoms associated with serious pathology and to determine whether they refer this person to conventional medical care.

Design: Quantitative survey using participant observation.

Setting: Health food shops selling herbal, homoeopathic or nutritional remedies in inner London.

Method: A researcher visited 29 health food shops and claimed to be suffering from severe, daily headaches of recent onset. The researcher recorded on tape whether the health shop staff took diagnostic information; recommended any therapeutic intervention; asked about or recommended seeing a general practitioner (GP); asked about use of conventional drugs. Coding of the interactions was carried out independently by two researchers.

Results: Whereas all but two shops recommended a specific therapeutic intervention, less than one in four advised a GP consultation. Forty-two different interventions were recommended. There was little consistency in the advice given.

Conclusion: Health food shops need to review the circumstances in which they should venture to provide advice and the basis on which they make any therapeutic recommendations. Shops selling over-the-counter herbal, homoeopathic and health food products are a common feature of UK high streets. Such shops could be a useful source of health information and advice to their customers, but could also lead to harm, for example by delaying treatment of known benefit, if their recommendations were to be inaccurate or inappropriate.

Many health-shop customers seek remedies for mild, self-limiting conditions. Significant harm resulting from an inappropriate recommendation is therefore unlikely. However, what if a customer describes serious and/or persistent conditions: how would health store staff respond to a subject claiming symptoms which could well be associated with serious pathology? Previous studies have indicated that health shops freely give advice on AIDS1 and chronic constipation2. However, it is unclear whether these studies had used pre-planned methods of data collection and analysis, or had successfully avoided prompting shop workers to give particular answers. It is also unclear whether shop workers had had a reasonable opportunity to recommend or enquire about conventional care. The constellation study was conducted by a British consumer organisation and was originally reported in a lay magazine, with virtually no experimental details. In the AIDS study, a researcher visited health shops in Birmingham, Alabama, USA, and asked, 'What do you recommend for people with AIDS?' This is clearly an artificial situation. To our knowledge, no methodologically rigorous study has attempted to simulate, and thus examine, the real-life situation of a patient visiting a health shop.

The question posed in this study was whether health shop staff give specific therapeutic recommendations to a subject who describes symptoms associated with serious pathology. Furthermore, we wanted to know whether the subject would be referred to seek conventional medical care.

Methods

A researcher telephoned every health food shop listed in the inner London area to determine whether it was eligible for our study. To be included, the shop had to sell homoeopathic, herbal or nutritional remedies, but no conventional medications such as aspirin because we wanted to exclude shops who had access to a qualified pharmacist. We also excluded shops describing themselves as a Chinese herbal pharmacy; some Chinese herbal pharmacies are staffed by qualified herbal practitioners, so it is ambiguous whether they are shops or clinics.

We chose a sample of 30 to give a reasonable level of statistical error within resource constraints. Our sampling strategy was to identify all eligible shops in the London area and to conduct visits, starting with those closest to our researcher’s home, until 30 successful visits had been completed. The rationale for such a strategy, as opposed to random sampling, was that it was cost-effective and that we had no reason to believe that the location of a shop would make a difference to the type of information or advice given to customers.

A young, female researcher (AR) visited each store carrying a concealed tape recorder. A member of staff was approached and asked, 'I've been getting a lot of headaches recently and I was wondering what you'd advise?' The researcher then continued the enquiry according to a set of predetermined responses: if asked about the symptoms, the researcher described the headaches as starting three to four weeks previously, as being most severe in the morning and as occurring almost every day. In response to questions about conventional medical treatment, the researcher stated that she took two or three aspirins daily and had not consulted her GP. These symptoms were chosen because they could be associated with serious pathology, for example, a brain tumour or a variety of circulatory disorders. To all other questions, such as those about diet or lifestyle, the researcher told the truth. If the shop staff gave only general

A J VICKERS MA, Director of Research
R W REES MSc, Researcher
A ROBIN, Student Intern

Research Council for Complementary Medicine, London

426 Journal of the Royal College of Physicians of London Vol. 32 No. 5 September/October 1998
recommendations, the researcher asked for more specific advice on up to two occasions, but otherwise refrained from prompting responses.

Immediately upon leaving the store the researcher coded the interaction using a predetermined coding frame. The outcomes recorded were whether shop staff asked for diagnostic information, suggested a cause for the headache, recommended any therapeutic intervention, asked about or recommended seeing a general practitioner (GP) or asked about use of conventional drugs. Diagnostic information was defined as any questions about the location, quality, chronicity, frequency, duration or variation of the symptoms. A therapeutic recommendation was defined as any mention of a specific therapy, product or behaviour in the absence of qualifying remarks. Interventions were defined as products sold over the counter by the shop; complementary therapies such as acupuncture; books sold by the shop; diet or lifestyle changes or changes in drug intake. The specific nature of the recommended interventions, exchange of diagnostic information and discussion of the possible cause of headache were also described in narrative form.

Audio tapes of each visit were blindly reviewed by the study organiser (AV) to assess adherence to the study protocol. At the same time, the interactions were coded for a second time, without reference to the initial coding.

A number of ethical issues arose during the design of the study. The research team needed to produce valid results while respecting, where possible, the individual rights of shop staff. Since we needed to observe spontaneous and natural behaviour, no consent was sought from shop staff before the study. Moreover, subjects were not debriefed following the study interview. Such an approach is appropriate only when the potential for harm to study participants is negligible. We consider this to have been the case: study subjects were not asked to undertake any activity outside their normal, public, duties; their involvement in the study lasted no more than a minute or two; our methods make it impossible to trace either specific interview responses or participation in the study in general to individual members of staff.

After completion of the study, the manager of each shop was contacted by phone. They were informed that we were undertaking a survey of advice given in health shops and asked if they would be interested in participating. Those who agreed were first asked whether the shop employed a pharmacist. They were then asked whether they offered training to staff on the remedies sold by the shop and if so, the type of training given. Finally, they were asked whether the shop had a policy, either written or unwritten, on giving health advice to customers; if so, they were asked to give details.

Results

Twenty-nine successful visits were completed in the time available to us. Full data were recorded for each visit

| Action                                      | Number (%) | 95% Confidence interval |
|---------------------------------------------|------------|-------------------------|
| Took diagnostic information                 | 21 (72%)   | 53–87%                  |
| Suggested a cause of the headache           | 18 (62%)   | 42–79%                  |
| Suggested seeing a GP                       | 7 (24%)    | 10–44%                  |
| Gave any form of specific advice            | 27 (93%)   | 77–99%                  |
| Asked about conventional drugs              | 2 (7%)     | 1–23%                   |

(Table 1). Inter-rater reliability was over 99% with only one disagreement on one outcome for one visit.

All but two health shops offered some form of specific therapeutic recommendation, yet less than one in four advised a GP consultation. Given that the presenting symptoms were specifically chosen as those sometimes associated with serious pathology, it is notable that only one shop took what might be considered the ideal course of action, which was to ask more about the symptoms and then immediately recommend an appointment with a doctor. Forty-two different health practices were recommended (Tables 2 and 3). Many different types of diagnostic information were sought (Table 4) and an unusual variety of possible causes suggested (Table 5). There was little consistency between shops in diagnosis, cause or treatment.

| Recommended intervention                     | Number (%) | 95% Confidence interval |
|---------------------------------------------|------------|-------------------------|
| Specific product                             | 25 (86%)   | 68–96%                  |
| Specific therapy                             | 3 (10%)    | 2–27%                   |
| Specific book                                | 1 (3%)     | 0–18%                   |
| Specific diet or lifestyle change            | 7 (24%)    | 10–44%                  |
| Specific change in drugs                     | 0 (0%)     | 0–12%                   |

Table 3. Examples of recommended interventions.

- Camomile and eucalyptus essential oils; Bioforce remedies; Bach flower remedies
- Feverfew
- Multivitamins; spirulina and blue-green algae as diet supplements; cleansing diet; detoxification
- Bitter foods to help digestion; modify diet, cut back on grain
- Ginkgo-kola complex
- Niacin; vitamin B complex; magnesium
- Feverfew; rosemary, lavender and eucalyptus essential oils; consult a practitioner of herbalism, homeopathy or acupuncture
Table 4. Examples of diagnostic information taken.

| Question                              | Response |
|---------------------------------------|----------|
| Migrainous?                           |          |
| Exacerbated by stress?                |          |
| Frequency                             |          |
| Exacerbated by exercise?              |          |
| Related to reading?                   |          |
| Related to bowel function?            |          |
| Time of day of eating                 |          |

Table 5. Examples of causes given for headache.

| Cause                                |          |
|--------------------------------------|----------|
| Tension or nerves                    |          |
| Cold or 'flu                         |          |
| Dehydration                          |          |
| Body run down, detoxification taking place, weakened immune system, toxins circulating in blood |          |
| Using the brain too much             |          |
| Blood sugar levels, blocked liver, blocked colon |          |
| The weather                          |          |

Managers said that they provided training for their staff in the products sold by the shop. This training was primarily (12 shops) in the form of seminars given by remedy and vitamin companies.

Six managers claimed to have a written policy on giving health information and advice to customers; 11 said that they had an unwritten policy. However, the policies of some shops, as described by the managers, were inconsistent with the visiting researcher's experience at that shop. For example, one manager described an unwritten policy that staff should ask whether the customer has seen a doctor but should avoid giving diagnoses or recommending particular products. When the researcher had visited that shop during the study, she had not been advised to consult a doctor but had been recommended to use a variety of vitamin and mineral supplements. A manager at another shop said that staff are told not to give advice, for example, 'If someone comes in with a headache we wouldn't just tell them to take feverfew'. In this shop, staff had attributed the researcher's headaches to blood sugar levels and blockages in the liver and colon, and advised her to take feverfew leaf along with a herbal product containing feverfew.

Discussion

We found that health shops readily make therapeutic recommendations to a subject reporting symptoms associated with serious pathology. Only a minority asked whether a GP had been consulted. Few of the recommendations given are supported by good scientific evidence of benefit in headache. Even where such evidence is available, in the case of feverfew in migraine for example, the value of the recommendation is limited in the absence of a firm diagnosis.

We aimed to improve the methodology of previous studies on health shop advice by simulating a real-life customer-staff interaction, avoiding leading questions and pre-specifying a method of data collection and analysis. A possible weakness of the study concerns the representativeness of the sample. Our sample is restricted to health shops in the London area. However, we have no reason to believe that the type of advice and information given by health shops varies geographically in any significant manner.

There is little information about the degree to which health shops are consulted by the public or about the perceived reliability of health shop recommendations. The only relevant study we have been able to identify is that of Worsley, who mailed a questionnaire to 1000 adults in metropolitan Adelaide, Australia. Subjects were asked whether they had made use of a number of different sources of health advice in the previous three months. They were also asked to assess the reliability of each source on a seven point scale. Use and perceived reliability of health shop information were moderate: 7% of the sample had obtained information from health shops in the previous three months; 22% of the sample believed such information to be reliable. However, there were some interesting differences between demographic subgroups: those under 30 consulted health shops at three times the rate of the over 50s (10% vs 3%); young people also rated the reliability of health shops more highly. Thus, a small but significant section of the public consults health shops and follows advice from their staff.

Health food shops should therefore re-evaluate their practices with respect to customer advice, paying particular attention to issues of staff competence and referral to conventional care and to assess the circumstances in which advice should be given and the basis on which therapeutic recommendations are made.

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Address for correspondence: Mr A J Vickers, Research Council for Complementary Medicine, 60 Great Ormond Street, London WC1N 3JJ.