A Survey on Knowledge, Attitudes and Usage of Complementary and Alternative Medicine in Singapore
by Hwee-Ling Koh, Hui-Ling Ng & Hsiao-Huei Teo

Introduction

Complementary and Alternative Medicine (CAM) is a group of diverse medical and healthcare systems, therapies and products that are not presently considered to be an integral part of conventional medicine.1,2 A therapy is generally considered to be “complementary” when it is used in addition to conventional treatments; it is considered “alternative” when it is used instead of conventional treatment. Conventional treatments are defined as those that are widely accepted and practised by the mainstream medical community. The prevalence and usage of CAM has been reported in various countries, including the United States,2-6 United Kingdom7-9 and Japan.10 A landmark survey conducted in 19936 and followed up in 19975 documented an increase in the usage of CAM by the American population from 33.8% to 42.1%. Recently, based on data from the 2002 National Health Interview Survey conducted by the Centers for Disease Control and Prevention’s (CDC) National Center for Health Statistics, it was reported2 that 62% of adults in the US used some form of CAM therapy during the past 12 months when the use of prayer specifically for health reasons was included.

In Singapore, a survey conducted in 199411 found that 45% of Singaporeans had consulted a Traditional Chinese Medicine (TCM) practitioner in the past while 19% consulted such a practitioner in the past one year. A survey on the prevalence of usage, knowledge and attitudes of pharmacists towards CAM was carried out in Singapore in 2001.12 Similar surveys on the general public in Singapore have not been previously reported. This paper reports the prevalence of usage, knowledge and attitudes of members of the public towards CAM.

Materials and Method

Design

A survey was designed to collect information on the public’s patterns of use, attitude towards, and knowledge of CAM. It consisted of three parts, namely, demographic and other background data; questions on personal use of CAM, reasons for use and degree of satisfaction; and finally, attitudes towards CAM and perceived knowledge. The attitude was assessed by asking the public to rate their views of various aspects of CAM on a Likert scale, with 5 = strongly agree to 1 = strongly disagree.

Data collection

The self-explanatory survey forms were distributed to the public at various locations. Locations include public health screenings conducted by the Ministry of Health, the National University of Singapore and at SingHealth and National Health Group polyclinics. The survey forms were also distributed at the Federation Internationale Pharmaceutique (FIP) Congress 2001 and the TCM symposium 2001 held in Singapore as the study was conducted at the same time as another survey12 which focused on the usage, knowledge and attitudes of pharmacists towards CAM. The survey was also translated into Chinese. This is especially important for the older generation whom did not receive any education in English.
Selection criteria

The inclusion criteria include the ability to understand English, Chinese or Cantonese, with no cognitive disability. The exclusion criteria include incompletion of the survey forms and if the respondents indicated his or her occupation as “pharmacists.”

Results and Discussions

Eight hundred and fourteen members of the public (excluding pharmacists) participated in the survey. Six hundred and thirty-three respondents (77.8%) were Singaporeans while 102 respondents (12.5%) were Malaysians. The majority (93.2%) listed Singapore as the country of residence for the past six months.

Usage

Eighty-six point five percent (704) of the respondents reported use of some form of CAM in their lifetime while 80% out of these 704 respondents had used CAM in the past 12 months (Fig. 1). The most frequently used CAM was herbal medicine (73.4%) for lifetime use and Traditional Chinese Medicine, i.e. TCM (63%) for use in the past 12 months. Table 1 showed the reasons given by respondents for using and for not using CAM. Of the 110 respondents that did not use CAM, 51% of these cited “being satisfied with conventional medicine” as the reason for not using CAM. The reasons for using CAM included recommendation by friends and family (70.6%), for maintenance of general health (59.5%) and to treat medical conditions (56.8%). The most common medical conditions that required CAM usage were strains and sprains (59.3%), headaches (41.8%), back problems (34.8%), and others (42%) like the common cold, cough and fever.

Amount spent and willing to spend on CAM

The amounts that respondents spent and were willing to spend on CAM were shown in Fig. 2. Thirty-three point eight percent eight percent of the respondents spent less than S$10 (US$5.90) a month on CAM. Only 4.7% actually spent more than S$100 per month (US$59) but 5.5% were willing to spend more than S$100 per month on CAM. Most respondents (25.4%) were willing to spend S$10 to S$29 (US$5.90 to US$17) per month.

Table 1. Reasons given by respondents for not using and for using CAM

<table>
<thead>
<tr>
<th>Reasons for not using CAM</th>
<th>Frequency N = 110</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of evidence of effectiveness</td>
<td>30</td>
<td>27.2</td>
</tr>
<tr>
<td>Satisfied with conventional medication</td>
<td>56</td>
<td>51.0</td>
</tr>
<tr>
<td>More expensive than conventional medicine</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>Longer time to see effect</td>
<td>10</td>
<td>9.1</td>
</tr>
<tr>
<td>Others</td>
<td>18</td>
<td>16.4</td>
</tr>
<tr>
<td>Reasons for using CAM</td>
<td>Frequency N = 704</td>
<td>Percentage* (%)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Recommended by friends or family</td>
<td>497</td>
<td>70.6</td>
</tr>
<tr>
<td>Recommended by medical practitioner or pharmacist</td>
<td>70</td>
<td>9.9</td>
</tr>
<tr>
<td>Dissatisfaction with conventional medicine</td>
<td>97</td>
<td>13.8</td>
</tr>
<tr>
<td>To treat health problems</td>
<td>400</td>
<td>56.8</td>
</tr>
<tr>
<td>For maintenance of general health</td>
<td>419</td>
<td>59.5</td>
</tr>
<tr>
<td>Holistic orientation towards health</td>
<td>85</td>
<td>12.1</td>
</tr>
<tr>
<td>To relieve stress</td>
<td>212</td>
<td>30.1</td>
</tr>
<tr>
<td>Natural and therefore safer</td>
<td>124</td>
<td>17.6</td>
</tr>
<tr>
<td>Greater control over healthcare decisions</td>
<td>104</td>
<td>14.8</td>
</tr>
<tr>
<td>Others</td>
<td>16</td>
<td>2.3</td>
</tr>
</tbody>
</table>

*Percentages are calculated based on no. of responses/no. of respondents.

**Table 1.**

**Figure 1:** Types of CAM used in entire lifetime (N=704) and past 12 months (N=562)

**Figure 2:** Amount of money spent and willing to spend per month (N=704)
Attitudes

Forty-eight point two percent reported using CAM with conventional medicine and 69.6% did not consult a doctor while 74.6% did not consult a pharmacist. The reason given for not doing so was that 71.1% felt they did not require advice from a health professional. Eighteen point four percent reported being extremely satisfied and 77.6% reported being moderately satisfied; 94.2% indicated that they would recommend CAM to their friends and family. A majority (90.9%) agreed that a basic understanding of CAM was required before using CAM and only 0.3% of the respondents strongly disagreed with this statement. A great majority (53.3%) however disagreed with the statement that herbal medicine is unsafe and ineffective and 27.6% strongly disagreed with this statement; 60.9% agreed that self-care and interest in own health is one reason why people are drawn towards CAM; 50.7% and 47.1% felt that it was the pharmacist’s and doctor’s professional responsibility respectively to provide information on herbal medicine; 39.9% of the respondents agreed that it was important to consult a health professional before using CAM.

Perceived and actual knowledge

Sixty point seven percent reported that they did not know much about CAM and 11.4% reported having no knowledge at all. On the 10-item knowledge test, the mean score obtained by the public was a dismal 3.4 out of 10. The two questions that respondents most frequently answered wrongly was on safety and efficacy of herbal medicine (32.4%) and usage of ginseng in a patient with high blood pressure (25.4%). Only one out of ten respondents knew that St John’s Wort has been proven to cause herb-drug interactions.

In this study, 86.5% (704) of the respondents reported use of some form of CAM in their lifetime and 80% reported the use of CAM in the last 12 months. This percentage (80%) is higher than some other figures previously reported, e.g. 28.3% of UK adults7 and more recently, 10% in UK,8 62% of US adults2 but is closer to the 76.0% of Japanese adults.10 Although the use of CAM is prevalent in many countries, direct comparison of prevalence estimates within and between countries is difficult due to differences in study design and methodology.4 Herbal medicine was found in this study to be the most frequently used CAM, closely followed by TCM, massage and aromatherapy. Modalities like chiropractic and homeopathy which may be more commonly used in other countries, were infrequently used by the respondents in this survey. This could be due to the fact that about 78% of the respondents are Singaporeans and about 91% of the respondents are Chinese. TCM and some herbal remedies are an integral part of Chinese heritage. There is also a higher usage of aromatherapy by the younger respondents, compared to the older respondents.

Interest in and need for training

The public also indicated interest in attending talks and seminars on CAM, notably on TCM and herbal medicine. This showed that respondents were interested in their own healthcare and this may pose a great challenge for the healthcare professionals as patients become more informed of their healthcare options. The public had opined that providing information should be part of doctors’ and pharmacists’ professional responsibility. Therefore it is imperative that more education on CAM be introduced into the medical and pharmacy curriculum. In addition to educating healthcare professionals, there is also an urgent need to provide reliable information to the public and to educate them to source for reliable information themselves.

In the present study, the public’s knowledge of CAM was found to be severely lacking considering that 60.7% of the respondents admitting not knowing much and 11.4% not knowing
at all. This is alarming as almost half of the respondents use CAM concurrently with conventional medicine and more than 70% did not consult a doctor or pharmacist. The mean score in the knowledge test of 3.4 compares poorly to a previously reported score of 7.2 for pharmacists. Furthermore, the greatest source of knowledge came from friends and family, a potential source of misinformation. The mass media such as television, radio and newspapers was also cited as one source of knowledge scoring higher than that of the healthcare professionals.

Conclusions

Usage of CAM was found to be prevalent in members of the public in the current survey. More education on CAM is needed to educate both the public and health professionals to ensure safe use of CAM. This becomes increasingly important as CAM becomes increasingly popular.

Acknowledgments

The kind assistance, from the organizers of FIP 2001 and the TCM symposium 2001 and staff of the Singapore General Hospital and NHG polyclinics, is acknowledged. We would also like to thank Cerebos Pacific Ltd for providing free samples. The company was not involved in the survey in any other way.

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