



## Use of herbal medicines: Pilot survey of UK users' views

Rumana Zahn<sup>a</sup>, Nicolette Perry<sup>b</sup>, Elaine Perry<sup>b,c</sup>, Elizabeta B. Mukaetova-Ladinska<sup>d,e,\*</sup>

<sup>a</sup> *Clinic Naturae, Newcastle upon Tyne, NE1 1SG, United Kingdom*

<sup>b</sup> *Dilston Physic Garden, Corbridge NE45 5QZ, United Kingdom*

<sup>c</sup> *Institute of Neuroscience, Newcastle University, Newcastle NE4 5PL, United Kingdom*

<sup>d</sup> *Department of Neuroscience, Psychology and Behaviour, University of Leicester, Leicester LE1 7RH, United Kingdom*

<sup>e</sup> *The Evington Centre, Leicestershire Partnership Trust, Leicester General Hospital, Gwendolen Rd, Leicester LE5 4QG, United Kingdom*

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### ABSTRACT

Increasing sales of medicinal plants as supplements or health foods continue to indicate widespread self-medication. We conducted a survey on users' views on obtaining information on herbal medicines and their experiences and opinions about their use. Responses over one-year period (01.08.2015–31.07.2016) were analysed.

157 participants took part (87% aged 45–64y, and 13% > 65y). 80% participants used medicinal plants for multiple health benefits [i.e. health protection (74%), disease prevention (38%) and treatment (49%)]. 95% believed in the medicinal powers of plants. Information regarding use of medicinal plants was predominantly based on books (57%), the internet (53%), friends, colleagues or neighbours (51%) and health practitioners (42%). 51% of participants felt herbs were safe (51%) with less side effects (55%) than pharmaceutical medicines. 24% of medicinal plant users informed their medical doctor, with majority of informed medical professional (47%) accepting the use of medicinal plants.

This pilot survey provides new and valuable information for use in designing future more comprehensive surveys to provide essential information about the use of herbal medicines by the general population and health care providers' attitudes in the UK.

### 1. Introduction

Complementary and alternative medicine (CAM) is used worldwide either to enhance health or help with health-associated problems. Herbal medicine as a component of CAM includes the use of plant medicines and plant food-based diets, largely related to antioxidant and anti-inflammatory effects of phytochemicals present in fruit, vegetables, herbs and spices. The shortage of new and efficient pharmacological treatments to combat chronic illnesses such as dementia and cancer, or drug-resistant infections has refocused attention on medicinal plants, with pharmaceutical companies increasingly turning to traditional medicine sources as a potential source of novel drugs. Examples include: the anti-cancer drug paclitaxel, derived from the yew tree *Taxus*, and etoposide, from the mayapple (*Podophyllum*); artemisinin derivatives from wild wormwood (*Artemisia vulgaris*), now a standard treatment worldwide for *Plasmodium falciparum* malaria; metformin (linked to *Galega officinalis*, also known as goat's rue, a traditional rich in guanidine plant medicine in Europe), preferred first-line oral blood glucose-lowering agent to manage type 2 diabetes (reviewed

in<sup>1</sup> capsaicin from *Capsicum annum* (Cayenne) for pain<sup>2</sup> and galantamine from the snowdrop, *Galanthus nivalis*, used to modulate the cholinergic system and cognitive function in people with dementia, now one of the recommended anti-dementia treatments. In parallel to the use of isolated botanical drugs, whole plant extracts are also used. Some of these, now backed by substantial clinical (randomised controlled trials) evidence include *Ginkgo Biloba*<sup>3</sup> and extracts of *Salvia officinalis*, *Rosmarinus officinalis* and *Melissa officinalis*<sup>4</sup> for cognition, St John's wort (*Hypericum perforatum*) for depression, valerian (*Valeriana officinalis*) for insomnia,<sup>5</sup> arnica (*Arnica montana*) for pain and inflammation,<sup>6</sup> including wound treatment,<sup>7</sup> cinnamon (*Cinnamomum verum*) for lowering blood pressure<sup>8</sup> and, as a prescription drug in the UK, peppermint (*Mentha balsamea*) for irritable bowel syndrome.<sup>9</sup>

Among complementary and alternative medicines, plant medicines are high on the list of choices for people with particular medical conditions. In a 2013 survey of cancer patients, plant medicine was the most popular CAM.<sup>10</sup> In a recent UK survey, 127/375 (34%) cancer patients consumed herbal dietary supplements which included 101 different products<sup>11</sup> - this was the only type of CAM which involves the

\* Corresponding author at: Department of Neuroscience, Psychology and Behaviour, University of Leicester, Leicester LE1 7RH, United Kingdom.

E-mail address: [eml12@le.ac.uk](mailto:eml12@le.ac.uk) (E.B. Mukaetova-Ladinska).

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ingestion of substances which may interfere with the efficacy and safety of conventional medicines. In a secondary analysis of data from the US including UK co-authors, Zhang et al<sup>12</sup> reported that the second most frequently used CAM among headache/migraine sufferers (n = 6558), after manipulative therapy (22.0%), was herbal supplementation (21.7%), followed by mind-body therapy (17.9%). In an UK survey of (over) post-menopausal women, 70.4% of 5060 women who had discontinued hormone therapy used plant remedies, with evening primrose oil (48.6%) and black cohosh (30.3%) being most commonly used.<sup>13</sup>

NHS UK states that herbal medicine should be used with the same care and respect as conventional medicines, and users should inform their doctors and/or pharmacist about the herbal medicine they are using when having a medical consultation (<https://www.nhs.uk/conditions/herbal-medicines>). The list of herbal medicines currently holding a traditional herbal registration (THR) granted by the Medicines and Healthcare products Regulatory Agency (MHRA) totals 354 products that are licensed for medicinal use in the UK (<https://www.gov.uk/government/publications/herbal-medicines-granted-a-traditional-herbal-registration-thr/herbal-medicines-granted-a-traditional-herbal-registration>), and are intended for conditions that can be self-medicated and do not require medical supervision. How these principles are delivered in practice remains unknown. To obtain a better understanding regarding knowledge about plant medicine, ways of obtaining the information for its use in health conditions and disclosing the use of plant medicine to their medical doctors, we conducted a survey among inhabitants in England, UK. We surveyed the use of medicinal plants being used for multiple health benefits, including health protection, disease prevention and treatment, aiming to identify the source of information about medicinal plant benefits (books, internet, friends/colleagues or health practitioners). We sought to determine disclosure of use of medicinal plants conjointly with prescription drugs as a key safety issues for medical health professionals in seeking information about the use of plant medicine in the treatment of medical conditions. As far as we know this is the first survey in the UK about the general use of plant medicines in the community.

## 2. Materials and methods

### 2.1. Questionnaire

A questionnaire was devised based on a van Anandel and Carvalho<sup>14</sup> study of the population of Suriname in South America where traditional remedies including plant medicines are popular. The questionnaire, pretested and semi structured, was based on a multivariate model of human health care-seeking behaviour and designed to survey the awareness and use of plant medicine. It explores demographic information about participants, including their age, gender, occupation and marital status, as well as information about their health, occurrence of a recent illness, actions taken to overcome it (Appendix A). Participants were also asked for their opinion on the quality of both conventional and traditional health treatments, selection of herbal treatments and their openness in discussing the use of plant medicine with medical professionals. At the end, we provided a list of most commonly used plants for medicinal purposes and asked the participants about their familiarity with them (Appendix A). The list of plants used in van Anandel and Carvalho<sup>14</sup> study was modified, adding an additional list of plants to reflect the cultural background of our UK participants and their familiarity with both UK and world herbal traditional remedies. Herbs were selected according to their popularity, usage and availability. These included herbs freely available and commonly known for example Chamomile as a tea is also freely available at supermarkets, to those recognised and used in certain conditions such as Ginkgo for cognition but only available from specialist herbal shops.

### 2.2. Sample size

The questionnaire was distributed online, with further information made available via the following channels and their respective networks via Newcastle University, Newcastle Tyne and Wear Foundation Trust web page, The Hexham Cancer Support group, Botanic gardens (Alnwick Garden, Northumberland, the Royal Botanic garden, Kew, Dilston Physic garden, Northumberland), Gateshead City Council and local libraries. Information was collected over one-year period (1 August 2015 until 31 July 2016). Over this period, we received 157 electronic responses. This sample size provides a confidence level of 95% and margin of error 8%.

### 2.3. Ethical approval

Although there are some guidelines for online research, there is little consensus about good ethical practice. Even with vast amount of formal ethical guidance, doing online research ethically remains challenging.<sup>15</sup> Our study does not use any National Health Service sites and is purely observational (non-invasive and non-interactive). The questionnaire does not include personal, recognisable, sensitive and/or confidential data. As per the HRA decision tool kit (<http://www.hra-decisiontools.org.uk/ethics/EngresultN1.html>) the study does not require NHS ethical approval. In regards to the convention that all research participants should give full and free consent to participating in online research, the latest research by Sugiura et al<sup>15</sup> reports that the latter is neither possible nor necessary.

### 2.4. Statistical analysis

The analysis of categorical data included percentages of frequency and 95% confidence intervals (95% CIs). The analysis was performed using the SPSS v.24.0 (IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp. 2016).

## 3. Results

### 3.1. Participants

Most participants were women (n = 129; 82%), with 44% between the age of 45–64 years (Table 1). 67% of participants were in relationship (either married or living with partner), whereas 33% were single (30%), divorced or separated (3%) (Table 1).

Participants varied from a wide range of professional backgrounds, with at least secondary education, including: administrators, medical professionals, herbalists, librarians, artists, accountants and students. 22 participants were retired (14%) and 8 (5%) unemployed; amongst

**Table 1**  
Demographic characteristics of participants.

Variables		N=100%	Frequency	%	95% CI
Sex	Male	157	28	17.83	11.84–23.82
	Female		129	82.17	76.18–88.16
Age	18–24	157	22	14.01	8.58–19.43
	25–34		21	13.38	7.74–18.26
	35–44		25	15.92	10.27–21.73
	45–54		31	19.75	12.90–27.10
	55–64		37	23.57	17.32–30.68
	65–74		19	12.10	6.92–17.08
	> 75		2	1.27	0.00–2.52
Marital status	Single	156	47	30.13	22.81–37.19
	Married		75	48.08	40.16–55.84
	Divorced/ separated		5	3.21	0.32–5.68
	Living with partner		29	18.59	12.84–25.16

**Table 2**  
Information and attitudes towards medicinal plants.

Variables		N = 100%	Frequency	%	95% CI
Believing in healing power of plants	Yes	98	90	91.84	86.65–97.03
	No		8	8.16	2.26–13.35
Drinking tea as medicine	Yes	99	75	75.76	67.32–84.20
	No		24	24.24	15.80–32.68
Use of medicinal plants for:	Health promotion	99	71	71.72	62.85–80.59
	Disease prevention		35	35.35	25.93–44.77
	Cure		47	47.47	37.62–57.31
	Other use (i.e. hormonal imbalance, massage/pleasure)		2	2.02	0.00–4.79
	Never used		16	16.16	8.91–23.41
Use of medicinal plants over last 12 months	Daily	100	22	22.00	13.88–30.12
	Often		22	22.00	13.88–30.12
	Sometimes		25	25.00	16.51–33.49
	When unwell		13	13.00	6.41–19.59
	Never		18	18.00	10.47–25.52
Decision on medicinal plants use and length of use	Followed label instructions	94	30	31.91	22.49–41.33
	Practitioner instructions		7	7.45	2.24–12.86
	Decided themselves		36	38.30	28.47–48.13
	Others (i.e. books, internet, family and friends)		21	22.43	14.00–30.86
Information about medicinal plants	Family	92	34	36.96	27.10–46.82
	Friends/colleagues/neighbours		49	53.26	43.06–63.46
	Health practitioners		36	39.13	29.16–49.10
	Books		46	50.00	39.78–60.22
	TV/radio		15	16.30	8.75–23.85
	The web		46	50.00	39.78–60.22
	Workshop/courses		14	15.22	7.88–22.56
	Other (newspapers, herbal practitioners/researchers etc.)		13	14.13	7.01–21.25

them, only one declared being on long term sick leave.

### 3.2. Attitudes towards medicinal plants

95% of participants believed in the curative powers of plants and 77% recognised herbal teas as having medicinal properties (Table 2). The information regarding use of medicinal plants largely came from books (57%), followed by information from the web (53%) and friends, colleagues and neighbours (51%) health practitioners (42%) and family (33%), whereas less relied on workshop and courses (22%) and TV/radio (17%) (Table 2).

Most participants (up to 80%) declared using medicinal plants for multiple health benefits, including health protections (74%), disease prevention (38%) and treatment (49%), and only one participant declared using medicinal plants solely for pleasure i.e. massage oils. Only 12% of participants never used medicinal plants for health benefits, which is double the number participants who declared that they do not believe in the healing powers of plants (n = 8; 5%) (Table 2).

### 3.3. Subjective perception of using plant medicine

Most of our participants were well accustomed to using herbs (63%) and felt herbs were safe (51%) and had less side effects (55%) than pharmaceutical medicines (data not shown). Furthermore, for those not entitled to free prescriptions, they were cheaper (29%) and easier to access (38%). In addition, 20% declared that medicinal plants were better than pharmaceutical drugs and 15% had firm beliefs that doctors, or pharmaceutical drugs will not cure their illnesses. Despite these highlighted benefits, a large portion of participants remained undecided whether plants work better than drugs (50%), and this also had an impact on their attitudes regarding the usefulness of traditional medicine in disease treatment, with 40% not being able to make up their mind, and a slightly lower portion (33%) not knowing about the economic costs and differences between plant and conventional medicine.

### 3.4. Frequency of use of medicinal plants

Half of the participants declared frequent use of medicinal plants. Thus, 26% used medicinal plants daily and additional 24% several times per week. Occasional use of medicinal plants was reported by further 26%, whereas a minority (11%) were using only when unwell. Only a small portion (14% of participants) reported that they have not used medicinal plants over the last 12 months (Table 2).

### 3.5. Plant medicine: use and medical information

Although many participants (52%) made the decision themselves to use medicinal plants either for health promotion, health cure, without seeking medical advice, 24% informed their medical doctor, who were amenable to the medicinal plant used, and even wanted to know more about it. Thus, 47% of medical doctors accepted the use of medicinal plants and an additional 16% asked further questions. However, more than one half were undecided, with 31% remaining doubtful (24%) or disregarding (7%) the use of medicinal plants for therapeutic purposes (Table 3).

Since most participants initiated herbal treatments themselves, they decided on the dose and length of medicinal treatment, either by following label instructions (34%) or their own accord (34%). In contrast, specialised herbal practitioners were infrequently consulted (10%) (Table 4).

### 3.6. Participants wellbeing

81% of our respondents reported being unwell over the last 12 months: 55% have been unwell for a few days, 22% for several months and 23% declared chronic illness. The most frequent chronic illnesses reported were: arthritis and joint pains (32%), stomach/intestinal problems (32%), headaches and migraines (28%), mental health (23%) and sleep problems (24%). Interestingly, hypertension and cancer were under represented (6.8% and 2% respectively) (Table 4).

Whilst unwell, a larger portion of our participants consulted medical doctors (57%) but a significant portion did not consult anyone (42%) (Table 3), with 12% seeking help from herbal practitioners alone.

**Table 3**  
Informing medical doctors about the use of medicinal plants.

Variables		N = 100%	Frequency	%	95% CI
Have you informed your medical doctor?	Yes	98	21	21.43	13.31–29.55
	No		50	51.02	41.03–60.01
	Not applicable		27	27.55	18.70–36.40
What was your medical doctor reaction:	Accepted medicinal plants	33	15	53.57	36.55–70.59
	Asked questions		3	10.71	0.16–21.26
	Was doubtful		5	17.86	4.79–30.93
	Not accepted		1	3.57	0.00–9.90
	Do not know		9	32.14	16.21–48.07

Interestingly 14% of participants had a wider range of practitioners who they seek support from i.e. chiropractors, physiotherapists, acupuncturists, pharmacists and even online doctors.

### 3.7. What participants did when unwell?

On average each participant made use of at least two forms of treatment. Out of the many options offered most participants favoured rest (55%) and diet (44%) followed by plant medicine (36%) and combined use of herbal and prescription medicine (35%). Only 29% used prescription medicine alone, whereas engaging with religious and spiritual healing was under represented (5%) (Table 4).

Participants who used combined herbal medicine and prescription medicine appeared to be relatively aware of safety issues around their use (36%). However, 41% of participants failed to comment on this suggesting that they may have been unaware of their interactions.

## 4. Discussion

### 4.1. New findings

The findings of our survey contribute to understanding awareness about the use and benefits of medicinal plants in our western society. However, the response was limited [157 compared to 270 in the Van Andel and Carvalheiro<sup>14</sup> study] and restricted to England (UK), reflecting the contrast between surveying populations who do and do not routinely use plant medicines. A lack of interest of many of the UK organisations contacted (e.g. academia or health Trusts in general) and

the likelihood that participants with interest in plant medicine were over-represented call for caution in the interpretation of the results. Having said that, a previous larger survey,<sup>16</sup> found that only 0.8% (n = 15) of participants used plant medicine, thus making the current study much more relevant for the use of medicinal plants in the UK. Our findings, therefore, provide valuable new data which, although not sufficient to provide a full and objective picture about the general attitudes towards plant medicine and its current use for health benefits, add important insights into how plant medicine is used. A further larger study should include additional information not addressed in the current survey, i.e. participants' occupation, income, life style, diet, health status (duration and ongoing medical treatments of systemic diseases and/or acute illnesses, such as cancer, mental health, etc.) and accessibility to medical treatments that may also influence the use of plant medicine in the population. Nevertheless our pilot study suggests that the necessary sample size to generalise our findings and achieve confidence level of 95% with a margin error of 5% is 377–385 people.

In contrast to the USA medicinal plant consumers, who appear to be in their 70s and suffering predominantly from chronic diseases, including stroke, cancer, obesity, arthritis, and breathing problems,<sup>17</sup> our respondents were younger, in keeping with a previous survey,<sup>16</sup> with the majority (> 70%) being 25–65 years of age and using herbal medicine predominantly as analgesics (to help with arthritis, headaches, and migraine; 56%), gastrointestinal, sleep and mental health problems. Although only a smaller portion of participants appear to be using herbal medicine to regulate pain in the USA (4%;<sup>12</sup>) and Australia (2.4–5.5%;<sup>18</sup>), the older age of enrolled participants,<sup>18</sup> larger surveyed samples,<sup>11</sup> addressing the use of CAM,<sup>11,18</sup> rather than

**Table 4**  
Subjective Perception of Using Plant Medicine.

Variables		N = 100%	Frequency	%	95% CI		
Illness in the last 12 months	Arthritis/joint pains	99	24	24.24	15.80–32.68		
	Headache/migraine		21	21.21	13.16–29.26		
	Stomach/intestinal problems		26	26.26	17.59–32.93		
	Menstrual/genital problems		13	13.13	6.48–19.78		
	Mental health problems		17	17.17	9.74–24.60		
	Injuries/fractures		9	9.09	3.43–14.75		
	Sleep problems		17	17.17	9.74–24.60		
	Urinary tract problems		8	8.08	2.71–13.45		
	Cancer		2	2.02	0.00–4.79		
	Heart problems		2	2.02	0.00–4.79		
	Other (gallbladder, chest problems, sickness, pain, unstable blood pressure)		12	12.12	5.69–18.55		
	Preferable treatment when unwell		Prescription medicine	85	22	25.88	16.57–35.19
			Plant medicine		29	34.12	24.04–44.20
Herbs and prescription drugs		26	30.59		20.79–40.39		
Religious activity		3	3.53		0.00–7.45		
Traditional healers		2	2.35		0.00–5.57		
Diet		35	41.18		30.72–51.64		
Rest		48	56.47		49.53–67.01		
Nothing		13	15.29		7.64–22.94		
Others (dietary supplements, acupuncture, exercise, homeopathy, massage, rolfing)		11	12.94		5.80–20.08		
If using medicinal plants with prescription, did you check safety?		Yes	54		30	55.56	42.31–68.81
	No	24		44.44	31.19–57.69		

medicinal plants alone may contribute to the divergent findings. However, we cannot exclude the possibility that the use of herbal medicine/plants may differ culturally, and participants' age may also influence the medicinal use of plants. In support for the latter are the findings from a recent focus group study that found plant medicine to be used for prevention and promoting health among older people, and in mild/moderate diseases prior starting treatments with conventional treatment(s).<sup>19</sup>

4.2. Gender in the context of CAM

Our participants were predominantly women (82%). This contrasts with previous reports involving equal percentage of male and female participants.<sup>12,16</sup> These studies were conducted on surveying wider CAM use in the general population, and not restricted to plant medicine alone. Scandinavian studies,<sup>20,21</sup> as well as a systematic review,<sup>22</sup> reported higher prevalence of women who turned to complementary and alternative medicine in their surveyed populations. Interestingly, a herbal-medicine alone study also confirmed higher prevalence of women (65%) as users.<sup>23</sup> Self-medication, similarly, appears to be associated with female gender,<sup>24</sup> who appear to be more inclined to turn to plant medicine even in studies that enrol similar percentage of male participants<sup>25</sup>. The fact that more women than men turn to CAM and CAM products, including plant medicine, may be due to the neglect of women's health care needs in public health care system, as recently outlined by Kristoffersen et al,<sup>21</sup> or, alternatively, women being more open to unconventional solutions to their health problems. This needs to be addressed in further studies.

4.3. Simultaneous use of plants and prescribed medicine

The accessibility of medicinal plants (our participants predominantly purchased them from supermarkets followed by health food shops, whereas very little was purchased online, from medical herbalist and health practitioners; EBM-L unpublished data) not surprisingly led to their wider medicinal use simultaneously with ongoing pharmacological treatments. Thus, nearly one third of our participants used jointly herbal and mainstream/general practitioner prescribed medication, but the majority of them (51%) did not disclose this to their medical practitioners. Interestingly, this percentage is nearly identical to the figure obtained from a much larger sample, involving 1794 participants, of which 52% did not reveal the use of CAM to their general practitioners.<sup>16</sup> This raises issue about the safety of the possible drug-herb interactions as described in both the latest systematic review<sup>26</sup> and the cross-sectional survey of older adults.<sup>27</sup> Interestingly, our data suggest that the medical practitioners are open minded about the use of plant medicine, and only few expressed opposing attitudes. Larger survey on medical practitioners should provide a more insight about their concerns and address the CAM use in relation to conventional medicine.

4.4. Plant medicine in the context of the NHS

At present, the UK NHS health care system suffers from long waiting

lists to access majority of healthcare services and lack of number of healthcare professionals. This is all happening at the time when we are fostering patient centred care. Our findings do not support objections from health professionals about the use of medicinal plants in therapeutic purposes. Thus, at least half of the medical doctors that participants have consulted were agreeable with additional use of medicinal plants, with 31% remaining either doubtful or discarding the idea. These findings bear similarities with a recent study conducted on a highly trained specialised medical cohort of anaesthesiologists and surgeons, who, similarly, provided further support for plant medicine use in clinical setting.<sup>28</sup> In addition, a study involving community pharmacists highlighted that the limited knowledge on and access to information regarding plant medicines are the main barriers to the pharmacists' practice.<sup>29</sup> Given that in other countries, such as Poland, pharmacists are trained in dispensing plant medicine and that UK registered and accredited herbalists are trained in the efficacy and safety of plant medicines alongside conventional medicine, an understanding of plant medicine by all health care professionals including consultation with medical herbalists is essential given that the use of plant medicine in the general population is increasing. These findings as well as the medical students' interest in plant medicine<sup>30</sup> argue for further investment in educating medical students, trainees and skilled medical professionals in the principles and medicinal applications of plant medicine. This will facilitate further the patient centred care and avoid miscommunication about the treatment and care our patients self-impose. This process is already happening in some of the European countries, i.e. Switzerland and Germany, that have accepted CAM (including ayurvedic and plant medicine) in their main stream Health care system and the cost-effectiveness of these treatments has been recently highlighted.<sup>31</sup>

The future of the UK health care system, thus, will need to address both the growing needs of the population who based on our survey is not only open to communication with medical professionals, but also like to be in charge of their health and health management (including prevention) as well as the willingness of the medical professionals to engage in discussions for plant medicines. This will build on trust between doctors and service users and help maintain a healthy dialogue regarding future shaping and provision of health care in general.

Convention on biodiversity

Not applicable.

Declarations of interest

None.

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None.

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We would like to thank all participants who took the survey.

Appendix A

We are conducting a brief survey about lifestyle and use of herbal medicine in adults in our region. Please reply, tick or circulate the answer that describes you best. We are very grateful to you for finding the time to fill in this survey.

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Gender: F / M	Age: years	Occupation:	Marital status:
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1. How would you describe your physical health: -Excellent - Poor	10. If you exercise, please state what: 11. Do you have religious/spiritual beliefs? YesNo
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- Very good - Good
- Not as good as it used to be
- 2. How would you describe your mental health:
  - Excellent - Poor
  - Very good - Good
  - Not as good as it used to be
- 3 Do you take any medicine and why?
- 4. Do you smoke?
  - YesNo
  - Stopped smoking \_\_\_years ago
- 5. Fruit/fruit juice consumption
  - Daily, - Monthly
  - Weekly - Very rarely
  - Never
- 6. Do you suffer from depression?
  - YesNo
- 7. Do you have memory problems?
  - YesNo
- 8. Are you worried about having or developing memory problems?
  - YesNo
- 9. Do you exercise:
  - daily - never
  - weekly - occasionally
- 20. Do you believe in healing powers of plants?
  - Yes No
- 21. Do you believe in magic powers of plants?
  - Yes No
- 22. Have you used medicinal plants for:
  - Health promotion
  - Disease prevention
  - Cure
  - Never used
- 23. How frequently have you used medicinal plants over the last 12 months:
  - Daily
  - Sometimes
  - When unwell
  - Never
- 24. Have you received information about medicinal plants from:
  - Family
  - Friends/colleagues/neighbours
  - Books
  - TV/radio
  - Web
  - Attended workshops/courses
- 26. If you have used medicinal plants, what were your motives:
  - Accustomed to using herbs
  - Plants work better than pills
  - Herbs are safe
  - Less side effects
  - Doctor or pills can't help me/cure my illness
  - Cost
  - Easy access
  - Other.....
- 27 Have you informed your medical doctor about using medicinal plants?
  - Yes No Not applicable
- 28. If you have answered yes, what was your medical doctor reaction:
  - Accepted medicinal plants - Not accepted
  - Asked questions - Does not know
  - Was doubtful - Other .....

- 12. Have you got:
  - Diabetes
  - High blood pressure
  - Low blood pressure
  - Heart problems
  - Falls
  - Chest problems (including asthma, chest infections etc)
- 13. Please, comment about your dietary habits:
  - Vegetarian - Vegan
  - Eat both red and white meat, including fish
  - Eat fish only
  - Eat chicken only
  - Eat fish and chicken only
  - Any other dietary requirements:.....
- 14. Coffee/tea consumption (please circulate beverage:
  - > 1/day - Daily - Never
  - 1-6 weekly - Several times/month
- 15. Alcohol intake:
  - None - Weekly
  - Daily - > 2/day
  - Monthly - Very rarely
- 16. Are you satisfied with your life?
  - YesNo
- 17. Do you feel your life is empty?
  - YesNo
- 18. Are you afraid that something bad is going to happen with you?
  - YesNo
- 19. Do you feel happy most of the time?
  - YesNo
- 25. Have you been unwell over the last 12 months?
  - Yes No
- 26. If unwell, how long have you been unwell?
  - Few days
  - Months
  - Longer/chronic
- 27. If unwell, what type of illness did you have:
  - Cold/influenza cough
  - Fever
  - Hypertension
  - Arthritis/joint pains
  - Hernia
  - Headache/migraine
  - Stomach/intestinal problems
  - Diabetes
  - Skin problems, wounds/rash
  - Menstrual/uterus problems
  - Prostate problems
  - Mental and spiritual health
  - Injuries/fractures
  - Heart problems
  - Urinary tract problems
  - Sleep problems
  - Cancer
  - Other.....
- 24. Who did you consult when unwell;
  - Medical doctor
  - Herbal practitioner
  - Did not consult anyone
  - Other.....
- 25. Did you use:
  - Prescription medicine
  - Herbal medicine
  - Herbs and prescription medicine
  - Religious activities
  - Traditional healers
  - Diet
  - Rest
  - Nothing
  - Other .....

Please look at the list of medicinal plants and tell us whether you are familiar with these plants, and whether you have used them and for what symptoms/condition.

Medicinal plant	Familiar with medicinal properties	Have you used it for medicinal purposes?	Why?
1	Alfalfa		
2	Aloe Vera		
3	Arnica		
4	Bilberry		
5	Bilberry		
6	Black pepper		
7	Blueberry		
8	Cabbage		
9	Camomile		
10	Celery		
11	Chestnut		
12	Chilli		
13	Cinnamon		
14	cloves		
15	Coconut (oil)		
16	Comfrey		
17	Coriander		
18	Cumin		
19	Dandelion		
20	Eucalyptus		
21	Fenugreek		
22	Feverfew Trough		
23	Flaxseed		
24	Garlic		
25	Ginger		
26	Ginko Biloba		
27	Ginseng (root)		
28	Green tea		
29	Hawthorn		
30	Henna		
31	Horsetail		
32	Jasmin (tea)		
33	Lavender		
34	Leek		
35	Lemon balm		
36	Lemongrass		
37	Lime/lemon/orange		
38	Liquorice root		
39	Marigold		
40	Milk thistle		
41	Mint (oil)		
42	Onion		
43	Onion		
44	Opium poppy		
45	Oregano		
46	Papaya		
47	Parsley		
48	Passion Flower		
49	Pumpkin		
50	Red current		
51	Rose (oil)		
52	Rosemary		
53	Sage		
54	Senna leaves		
55	Shiitake mushrooms		
56	St. John's worth		
57	Star anise		
58	Tea tree oil		
59	Thyme		
60	Turmeric		
61	Valerian		
62	White willow		
	Other:		

We will appreciate any additional comments you may have.  
Thank you very much for completing the questionnaire.

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