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1 Covid-19 and herbal practice: A UK practitioner survey

2

3 Abstract

4 **Objectives:** To identify the effect of the Covid-19 pandemic on UK herbal medicine practice and how
5 herbal medicine practitioners are supporting people with Covid-19. **Design:** Mixed-methods e-
6 survey. **Methods:** The survey link was distributed through professional associations and social
7 media. Quantitative data were descriptively summarised and qualitative data were analysed using
8 content analysis. **Results:** Results from 59 responses indicated a profound effect of the pandemic on
9 herbal medicine practice, with a move to remote working and a reduction in client numbers.
10 Practitioners reported prescribing a wide range of medicinal plants, chiefly *Glycyrrhiza glabra* L. and
11 *Echinacea spp.* alongside providing information and advice. Few reported inter-professional
12 collaboration. **Conclusions:** Herbal practitioners need to build on current collaborations, research
13 and experience to develop consistent approaches to support people with mild-moderate Covid-19
14 symptoms. More systematic exploration of herbal medicine practice during and as a consequence of
15 the pandemic is needed.

16 What is already known about the topic

- 17 • The Covid-19 pandemic has had a large impact on all types of healthcare
- 18 • The impact on herbal medicine practice is unclear

19 What this paper adds

- 20 • The Covid-19 pandemic has substantially affected UK herbal medicine practice
- 21 • A wide range of medicinal plants are currently used by herbal practitioners to support
22 people with Covid-19
- 23 • Herbal practitioners need to develop consistent holistic approaches to support people with
24 mild-moderate symptoms of Covid-19

25

26 1. Introduction

27 Herbal medicine is consistently the most popular form of complementary medicine [1], mostly using
28 over-the-counter products without the consultation of a healthcare professional [2]. A 2018
29 representative national survey suggested only 26/4862 (0.005%) of the public in England visited a
30 herbal practitioner in the previous 12 months [3]. UK Herbal medicine typically includes Western
31 herbal medicine (WHM), Ayurveda and Traditional Chinese Medicine (TCM). Practitioners usually
32 practice face-to-face in a clinic or from home [4]. UK herbal medicine is provided outside the UK
33 National Health Service, in essence mostly privately via herbal practitioners or via informal networks.
34 Since professional regulation is voluntary and members may be registered with more than one body,
35 or may not be registered at all, no estimate of total number of UK herbal practitioners is feasible.
36 However data from 2004 estimated that there were 1300 herbal practitioners registered with
37 voluntary bodies in the UK [5].

38 On 11 March 2020, the World Health Organisation declared the outbreak of SARS-Cov-2 (Covid-19) a
39 pandemic. In response to this, on 23rd March 2020 a UK lockdown was imposed to halt transmission,
40 leading to closure of businesses that were deemed non-essential [6]. Whilst herbal medicine
41 practitioners were not specifically mentioned in the guidance, complementary medicine services

42 were not deemed as essential and many therapies such as acupuncture and massage cannot be
43 practiced at a social distance, leading to the temporary closure of complementary medicine
44 premises. Restrictions were gradually lifted from May 2020 onwards for 'other medical and health
45 services', with further restrictions implemented gradually from Sep 2020 onwards. Guidance from
46 herbal practitioner bodies advised remote working where possible and safe.

47 Few studies have mapped the impact of the pandemic on complementary and alternative medicine
48 (CAM) practitioners. One preprint Norwegian survey found just over a third of providers (223/581)
49 continued providing care during the Norwegian lockdown, offering video (57%) and telephone (47%)
50 consultations in addition to face-to-face (44%) [7]. However, only 18 (3.1%) respondents were herbal
51 medicine practitioners. Currently, the effect of the pandemic on herbal medicine practice is unclear
52 – it is possible that practitioners could have seen an increase in client demand due to the UK
53 National Health Service (NHS) being overstretched, or that all demand would be reduced in light of
54 restrictions. It is also unclear how herbal practitioners are supporting people with Covid-19 during
55 the pandemic, and the herbal medicines and lifestyle recommendations made. We therefore carried
56 out a mixed-methods survey to identify:

- 57 - How herbal practitioners' practices have changed in response to Covid-19
- 58 - Common medicinal plants that were used to support people with symptoms of Covid-19 by
59 practitioners
- 60 - Advice sought from and given by herbal practitioners regarding Covid-19
- 61 - If/how herbal practitioners are working with NHS or CAM providers in response to Covid-19
- 62 - Resources used by herbal practitioners to find information on Covid-19

63

64 **2. Methods**

65 A mixed-methods online survey was developed, targeting UK WHM, TCM and Ayurvedic
66 practitioners. The survey asked about changes to herbal practice since Covid-19, medicinal plants
67 used to support people with Covid-19, other supplement and lifestyle recommendations,
68 interprofessional working and practitioner demographics. Responses were not mandatory for any
69 questions. Ethical approval was obtained from UCL ethics committee (ref 14097/003).

70 The survey was distributed Jun-Nov 2020 through professional associations including the National
71 Institute of Medical Herbalists (NIMH), the College of Practitioners of Phytotherapy (CPP) and the
72 Register of Chinese Medicine (with one reminder email) and on social media platforms (i.e. Facebook
73 and LinkedIn). Ayurvedic and other TCM associations were approached but did not respond. The
74 total number approached could not be determined as there was overlap in membership across the
75 different recruitment routes.

76 Quantitative results were analysed using descriptive statistics and qualitative results from open-
77 ended questions were analysed using content analysis.

78 **3. Results**

79 The survey received 59 responses overall, with variable response rates for each question. Table 1
80 reports respondent demographics. Respondents were largely female Western herbal medicine
81 practitioners in England in their mid-fifties, who worked part time with an average of 35 clients per
82 month. They had practiced on average for 15.8 years.

83 **Table 1. Demographics of survey respondents (out of n=59 who started the survey)**

Demographic (n total responses)	Mean (SD) and range or N (%) per category
Age (n=40)	55 (10) Range 29-73
Gender (n=41)	Female 36 (88%) Male 5 (12%)
Years in practice (n=41)	15.8 (9.3) Range 1-41
UK country (n=36)	England 35 (97%) Scotland 1 (3%)
Discipline of HM (n=46)	WHM 31 (67%) TCM 4 (9%) Ayurveda 7 (15%) Other 4 (9%)
Clients per month (n=39)	35 (40) Range 1-200
Full/part time (n=41)	Full time 17 (41%) Part time 24 (59%)

84

85 3.1. Impact on herbal practice

86 Herbal medicine practitioners reported a drastic effect upon usual practice. Few completely paused
87 their herbal practice (n=4/59), but the majority moved to an online-only practice (n=47/59). Events
88 such as herb walks were cancelled (n=17), while some implemented additional precautions when
89 cleaning dispensaries (n=27) or changed how clients collected herbal medicines (n=24). Only three
90 participants reported no changes to their practice. Most had noticed a change to their caseload (see
91 Table 2), particularly a reduction in seeing non-Covid patients.

92 Just over half of respondents (33, 56%) had seen patients with suspected Covid-19 (mean 13
93 patients range 0-100), and 16 (27%) had seen patients with a confirmed diagnosis (mean 11 patients,
94 range 0-60).

95 **Table 2. Changes in caseload since the start of the pandemic (n=59)**

How has your patient/client caseload changed since the start of the pandemic?	N (%)
Increase in new patients with suspected or diagnosed Covid-19	6 (10%)
Increase in new patients with conditions other than Covid-19	2 (3%)
Increase in new patients both with Covid-19 symptoms and other conditions	10 (17%)
Reduction in new patients with other conditions	22 (37%)
Seeing existing patients on a more frequent basis	4 (7%)
No change	10 (17%)
Not sure	5 (8%)

96

97 The vast majority of respondents had been asked for advice by patients in relation to Covid-19
98 (n=55, 93%), by an average of 30% of their patients (n=45, range 0-90%). Practitioners reported
99 clients requesting advice regarding medicinal plants to support the immune system (n=46),
100 medicinal plants to support people with Covid-19 symptoms (n=36), food or nutritional supplements
101 to support Covid-19 prevention (n=32) and medicinal plants to support wellbeing during social
102 isolation (n=28). Between 18-34% respondents had also been asked about general issues, such as

103 maintaining wellbeing during self-isolation and social distancing, general preventative measures,
 104 self-isolation advice, Covid-19 transmission advice and whether to contact their GP. Herbalists
 105 primarily reported referring patients for further information to Public Health England (37%) or the
 106 NHS website (46%).

107 **3.2. Herbal medicines used**

108 To support patients with Covid-19, 31 herbalists responded reporting 59 medicinal plants and 3
 109 compounds. Those reported by three or more practitioners are listed in Table 3. The most commonly
 110 used medicinal plant was liquorice (*Glycyrrhiza glabra* L.), closely followed by Echinacea (*Echinacea*
 111 *spp*). Therapeutic rationales were focused mainly on medicinal plants with anti-viral,
 112 immunomodulatory and anti-inflammatory properties, particularly those traditionally classed as lung
 113 or respiratory tonics.

114 **Table 3. Most commonly reported medicinal plants used by practitioners to support people with**
 115 **symptoms of Covid-19**

Herbal medicine used	N	%	Documented rationale
<i>Glycyrrhiza glabra</i> L.	15	48%	Anti-inflammatory (9), antiviral (7), adrenal support (3), demulcent (2), respiratory tonic (3), cough management (1), expectorant (1) immune system and mucous membrane maintenance (1)
<i>Echinacea spp</i>	13	42%	Immune support or modulation (10), antimicrobial (2), antiviral (2), anti-inflammatory (1), requested by patients (1), prevention of cytokine storm (1) detoxifier (1)
<i>Andrographis paniculata</i> (Burm.f.) Nees	8	26%	Immune support/modulation (5), antiviral (4), bitter (2), has evidence base (1), antimicrobial (1), cooling (1), eliminates toxins (1), adaptogen (1), liver stimulant (1)
<i>Inula helenium</i> L.	6	19%	Lung or respiratory support (6), circulatory (2), digestive support (2), immune effects (1), expectorant (1)
<i>Thymus vulgaris</i> L.	6	19%	Lung or respiratory support/tonic (3), anti-infective (3), for cough (1)
<i>Astragalus membranaceus</i> Bunge	5	16%	Immune support (4), aid convalescence (1), increase vitality (1)
<i>Sambucus nigra</i> L. (fruct)	5	16%	Antiviral (5), immune support (2) anti-inflammatory (1), anti-catarrhal (1)

<i>Zingiber officinale</i> Roscoe	5	16%	Immune support (3), anti-infective (2), circulatory (2), digestive (2)
<i>Scutellaria baicalensis</i> Georgi	4	13%	Antiviral (2), immune support (2), cytokines (1), used in China (1), some evidence of activity against coronaviruses (1)
<i>Eupatorium perfoliatum</i> L.	3	10%	Relaxant diaphoretic (1), fever management (1)
<i>Hypericum perforatum</i> L.	3	10%	Antiviral (3), nervine tonic for anxiety or exhaustion (2), liver support (1), antidepressant (1)
<i>Ocimum tenuiflorum</i> L. (<i>syn.: Ocimum sanctum</i> L.)	3	10%	Antimicrobial (2), antiviral (2), immune system support (2), respiratory strengthening (1), adaptogen (1),
<i>Tinospora cordifolia</i> (Willd.) Hook.f. & Thomson	3	10%	Immune support (2), antiviral (1), antimicrobial (1), fevers (1), blood cleansing (1)
<i>Withania somnifera</i> (L.) Dunal	3	10%	Enhances immunity (1), rasayana (1)
Other = 45 medicinal plants reported by 1-2 respondents (see <i>Supplementary file</i> for full list)			

116 Note: not all respondents listed a rationale, and most listed multiple rationales

117 Twenty three out of 29 respondents had recommended vitamins or supplements, mainly vitamin D
 118 (n=14). Other commonly reported vitamins and supplements included Vitamin C (n=8), zinc (n=6)
 119 and essential oil steam inhalation (n=3). A minority mentioned probiotics (n=1), fish oils (n=1),
 120 multivitamin (n=1), mushrooms (n=2), garlic (n=2), nigella seed (n=1), quercetin (n=2), green tea
 121 (n=1), certain foods (n=1), cocoa (n=1) and vitamin K (n=2).

122 For wider support (e.g. with mood, wellbeing), 46 medicinal plants were reported by 23 practitioners
 123 (see Table 4), chiefly lemon balm (*Melissa officinalis*), skullcap (*Scutellaria lateriflora*), Siberian
 124 ginseng (*Eleutherococcus senticosus*) and St John's Wort (*Hypericum perforatum*). Wider support
 125 included prescribing relaxing or anxiolytic herbs, with some immune system support and adaptogens
 126 also prescribed.

127 **Table 4. Most commonly reported medicinal plants used by herbal practitioners to provide wider**
 128 **support with wellbeing**

Herbal medicine used	N	%	Rationale
<i>Melissa officinalis</i> L.	7	30%	Anti-anxiety (2), relaxing (2), antiviral (2), antidepressant (1), nervous system support (1), anti-complement (1)
<i>Scutellaria lateriflora</i> L.	7	30%	Anxiety (4), nervine (2)
<i>Eleutherococcus senticosus</i> (Rupr. & Maxim.) Maxim.	6	26%	Adaptogen (3), adrenal support (1), increase energy (1), immunomodulator (1)

<i>Hypericum perforatum</i> L.	5	22%	Antidepressant (3), mood (2), for anxiety (1), nervous exhaustion (1), stimulant (1)
<i>Crataegus</i> spp	4	17%	Cardiovascular support (2), circulation and heart support (2), nervine (1)
<i>Rhodiola rosea</i> L.	4	17%	Adrenal support (3), post-infection support (2)
<i>Avena sativa</i> L.	3	13%	Nervous system support/nervine (3), exhaustion (1)
<i>Ganoderma lucidum</i> (Leyss.ex Fr.) Karst,	3	13%	Immune support (3), calms the mind (1), anti-allergy (1)
<i>Passiflora incarnata</i> L.	3	13%	Sedative (1), relaxant (1), hypnotic (1), anxiolytic (1), mood support (1), for disturbed sleep (1)
<i>Valeriana officinalis</i> L.	3	13%	Anxiolytic (2), mood support (1), relaxant (1), hypnotic (1), for panic attacks (1)
<i>Verbena officinalis</i> L.	3	13%	Anti-depressant (1), nervine (1)
<i>Withania somnifera</i> (L.) Dunal	3	13%	Adaptogen (1), adrenal and thyroid support (1), anxiety and sleep (1)
Others (34 medicinal plants, see <i>Supplementary file</i> for full list)	1-2		

129 Note: not all respondents listed a rationale, and most listed multiple rationales

130

131 3.3. Other professional activities

132 Most practitioners (n=32) were not working with other healthcare professionals. Those who were,
 133 tended to work with other herbal practitioners (n=16) or CAM practitioners (n=10). Qualitative
 134 responses indicated that working with other herbalists largely involved discussions about supporting
 135 people with Covid-19 and best practices (n=10), for example: “*Sharing of research and experience*
 136 *with colleagues by phone/video calls.*”

137 A minority worked with health food shops (n=3), NHS professionals (n=6) or pharmacies (n=1). Some
 138 reported working with the NHS through a support programme for front line workers (n=4) or
 139 working in the NHS in another profession (n=2). Five respondents mentioned being involved more in
 140 their community, including sharing traditional knowledge (n=1), giving general Covid-19 advice (n=1),
 141 continuing an existing lifestyle programme (n=1), using medicinal plants preventatively (n=1),
 142 socially distanced medicinal plant walks and supplying medicinal plants to local shops (n=1).

143 Four reported other professional activities, including conducting webinars (n=1), being involved in
 144 research (n=2), attending webinars (n=1), teaching (n=1), developing practitioner guidance (n=1) and
 145 working with a professional body (n=1).

146 For their own information, herbal medicine practitioners reported mainly consulting information
 147 from research databases (34/59), webinars from other herbalists (33/59), NHS guidance (29/59),

148 Public Health England guidance (28/59) and professional body guidance (CPP 18, NIMH 12, other
149 18).

150 4. Discussion

151 The Covid-19 pandemic has substantially impacted UK herbal medicine practice. Most practitioners
152 worked remotely, noting a reduction in client numbers. Practitioners reported supporting clients by
153 providing information and advice, recommending Vitamin D and prescribing medicinal plants with
154 antiviral and immunomodulatory activity, chiefly *Glycyrrhiza glabra* L. and *Echinacea spp*, as well
155 anxiolytic plants for wider support. Few reported inter-professional collaboration.

156 The medicinal plants listed for supporting people with Covid-19 reflect those typically used by
157 practitioners to support people with respiratory tract infections. Currently, there is a lack of clear
158 evidence on the use of herbal medicines for Covid-19, which may be the reason for inconsistent
159 treatment approaches and the wide range of medicinal plants used. While there is generally no
160 direct treatment of the infection as such, some of the medicinal plants reported have clear potential
161 as an adjunctive therapy. A positive benefit/risk assessment for herbal medicines as adjunctive
162 treatments for Covid-19 was found for *Althaea officinalis* L., *Commiphora molmol* (T.Nees) Engl., *G.*
163 *glabra*, *Hedera helix* L., and *S. nigra* [8]. Twelve herbal medicines (including *A. paniculata*, *Echinacea*
164 *angustifolia* DC., *Echinacea purpurea* (L.) Moench and *Z. officinale*) were considered promising.
165 Results from clinical trials are typically emerging or ongoing. One systematic review found a small
166 amount of studies supporting the effectiveness of a number of TCM preparations (Lianhua Qingke
167 granules, Shufeng Jiedu capsule, Jinhua Qinggan granules, Toujie Quwen granules and tailored
168 herbal decoctions) as adjunctive treatments for Covid-19, with 32 ongoing trials identified [9].
169 Adjunctive treatment with Echinacea and Ginger tablets increased resolution of coughing, muscle
170 pain and breathlessness, in one RCT of 100 outpatients [10].

171 Thailand has approved the use of *A. paniculata* for a pilot clinical study in the treatment of mild
172 Covid-19 infections [11] whilst Iran has approved the use of four traditional herbal products [12].
173 The World Health Organisation published a statement supporting research into traditional medicines
174 for Covid-19 in Africa [13]. Medicinal plants have received comparably less research attention in the
175 UK's medical sector. A March 2020 statement from NIMH encouraged practitioners to distance
176 themselves from any spurious claims of 'cures' for Covid-19 [14]. Only one herbal medicine trial is
177 running in the UK so far, of Sambucol Black Elderberry liquid [15]. With the relatively widespread
178 use of herbal medicines sourced over the counter, there clearly was an increase in usage, but there
179 is no information on this available.

180 The move to remote working reflects practitioners following professional body guidance, and is likely
181 to be easier for herbal practitioners than for therapies requiring contact (e.g. massage). Remote
182 working was also observed in Norwegian CAM practitioners [7]. It has benefits such as flexibility and
183 greater client reach, but may enhance digital exclusion and limits the possibility of clinical
184 examination.

185 Whilst this survey is the first to document UK herbal practitioners' response to the Covid-19
186 pandemic, it is limited by the low response rate. Sample demographics are consistent with that of
187 other WHM practitioner surveys [4] but the data relating to TCM or Ayurvedic practice are too
188 limited to allow conclusions. We did not ask about the impact of Covid-19 on the medicinal plant
189 supply chain. Although this issue was not spontaneously raised by respondents, it may have affected
190 the choice of medicinal plants to use. As the survey was designed at the start of the pandemic, we
191 were unable to collect data on supporting people with long Covid. It is now estimated 1.46% of those

192 who have had Covid are experiencing long Covid in the UK, defined as symptoms persisting for more
193 than four weeks after suspected Covid-19 infection that cannot be explained by another cause, most
194 commonly fatigue, shortness of breath, muscle ache and loss of smell [16]. Although there is little
195 evidence for herbal medicines for long Covid at present, potentially similar conditions such as
196 chronic fatigue show some evidence for fatigue improvement through herbal medicines [17], with
197 established approaches to treatment [18]. This may be a promising avenue for further research.

198 **5. Conclusion**

199 The Covid-19 pandemic has substantially affected UK herbal medicine practice. There is a need for
200 herbal practitioners to build on current collaborations, research and experience to develop
201 consistent approaches to support people with mild-moderate symptoms of Covid-19. The survey
202 highlights the need for a more systematic exploration of herbal medicine practice during and as a
203 consequence of the pandemic.

204

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207

208 **Conflict of interest statement**

209 RF is a Western herbal medicine practitioner.

210

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