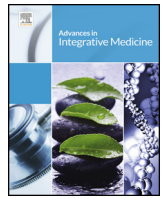




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# The potential contribution of traditional, complementary and integrative treatments in acute viral respiratory tract infections: Rapid Reviews in response to the COVID-19 pandemic★



In the face of new health challenges, such as COVID-19 resulting from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), with limited available information regarding pathogenesis, all health professionals must be diligent in their approach and must ensure that they engage with applicable research to inform their clinical decision-making. In the absence of any known effective treatment for COVID-19, the international community of health practitioners and researchers are committed to identify any interventions that may prevent, ameliorate or cure COVID-19. Drawing on their extensive training and experience in pharmacognosy and clinical nutrition, naturopathic practitioners – like many traditional, complementary and integrative medicine (TCIM) practitioners can offer a valuable contribution to the global search for interventions to improve COVID-19 outcomes at an individual and population level.

This issue of *Advances in Integrative Medicine* represents a collation of Rapid Reviews on behalf of the World Naturopathic Federation and aims to contribute the expert input of the naturopathic profession to the global evidence search of the role of TCIM in COVID-19. Naturopathic practitioners employ a mix of contemporary research evidence and traditional knowledge to inform their clinical decisions [1–3], and this approach situates naturopathy as a living tradition which evolves in response to changing external factors while still retaining its central tenets [4]. Whilst there have been several high-profile instances of individual TCIM systems such as Chinese medicine [5] and Ayurveda [6] proffering potential solutions that focus on their specific systems, the aforementioned characteristics of naturopathy provide a natural opportunity to examine TCIM evidence in a way that bridges the TCIM and conventional worlds.

## 1. Our approach to the rapid reviews

### 1.1. The task force

The Rapid Reviews were led by a team of over 40 individuals (researchers including research-active naturopathic clinicians) from sixteen universities from seven countries and five WHO world regions [7].

### 1.2. Selecting interventions for review

The WNF Research Committee met in early April of 2020 to discuss potential interventions to include in the Rapid Review project, including those for which high-profile but largely unsubstantiated claims had been made. Interventions were then further selected based on traditional knowledge in conditions similar to COVID-19 that had available research evidence and were known to be accessed by naturopaths, integrative clinicians and the general community internationally. Though other naturopathic and TCIM researchers have published on pre-clinical and physiological research around TCIM and COVID [8], it was determined that a rapid review of interventions would be most helpful to inform future TCIM research directions.

### 1.3. Target audience

The Reviews were aimed at policymakers, researchers, conventional health professionals and TCIM health professionals. The Task Force's intention was to leverage the strong pharmacognosy and nutritional knowledge and expertise of NPs to provide an up-to-date synthesis of available research evidence to help identify treatment opportunities that warrant further consideration in the management of COVID-19, or rule out unlikely treatment options.

### 1.4. Scope of reviews

The Task Force agreed that the scope of each Rapid Review would be determined by the respective team but – given the lack of studies specifically on SARS-COV-2, COVID-19 or other coronaviruses or associated diseases (such as SARS) – would offer most value to the wider health policy, research and clinical community if the reviews focused on acute viral respiratory tract infections (and, where appropriate, associated complications) in adult populations. All reviews had to include studies involving humans only, to optimise the transferability of findings to existing clinical and policy imperatives.

### 1.5. Potential contribution

It is hoped that these reviews will prove useful to health policymakers, researchers, and clinicians, particularly relevant as

★ The Rapid Review Task Force was chaired by WNF President Dr Iva Lloyd with Dr Amie Steel and Professor Jon Wardle as research leads.

organisations such as the World Health Organisation look to TCIM for COVID prevention, treatment and management options in addition to conventional treatments. As health policies are reviewed and adapted in response to COVID-19, this evidence may assist policymakers to identify approaches commonly used by integrative and naturopathic clinicians that warrant consideration for new interventions in the community. Similarly, researchers may find inspiration for new clinical trials to assist with the prevention, management, and treatment of COVID-19, including its long-term sequelae. Until additional research is undertaken, clinicians can draw on the findings of these reviews to better understand the potential risks and benefits associated with individuals with COVID-19 considering these treatments and apply this knowledge when providing care to the community.

### 1.6. Included reviews

The Task Force produced a final 10 Rapid Reviews encompassing nutritional and herbal treatments. The findings of each review varied, with some studies showing positive effects for acute viral respiratory tract infections and associated conditions (e.g. Echinacea, essential oils, n-acetyl cysteine, quercetin, vitamin C) suggesting the potential value in exploring their effectiveness in COVID-19. Other treatments did not indicate any significant value in the treatment of acute viral respiratory tract infections and as such, warrant further study but may not be a justifiable priority immediate research in COVID-19 populations. Based on expert clinical guidance, *Glycyrrhiza glabra* and palmitoylethanolamide were included in the initial list of potential Rapid Reviews, however the allocated review teams found no relevant papers during initial scoping activities based on the inclusion criteria, and with the support of the Task Force leadership team, the decision was made to abandon both reviews. This itself is an important finding, highlighting the dearth of research attention that exists in this area, and the need for clinical perspectives have a greater role in informing TCIM research. All reviews were assessed (and modified, where appropriate) by reviewers using the RAPeer checklist published in this issue.

### 1.7. Limitations of the evidence

The evidence presented in the Rapid Reviews included herein is not intended to be a comprehensive exploration of all treatments commonly used in naturopathic or integrative medicine practice which may be valuable in the management of a new condition such as COVID-19. Neither is it intended to present a full picture of any one particular approach to managing acute viral respiratory infections. The evidence collated by the Rapid Review Task Force only focuses on single interventions in populations with acute illness or complications arising from acute illness.

Like many TCIM practices, naturopathic practitioners commonly employ multiple types of treatments when managing an individuals' health [9] and, in line with contemporary patient-centred and evidence-based practice principles [10,11], develop tailored treatment plans that address the individual symptomatic presentation of each patient. Naturopathy is also complex traditional medicine system that prioritises prevention and whole person approaches to health and wellness, and the reviews of specific treatments also need to be viewed in this context when assessing their suitability for integration in that profession [12], just as they do for any other clinical setting. Furthermore, individuals with complex non-communicable diseases, such as

diabetes and cardiovascular disease, represent a substantial proportion of patient populations internationally [9] and clinical research suggests TCIM approaches such as naturopathic care can be effective in treating such conditions [13]. With this in mind, TCIM – including naturopathy – may have a valuable role to play in the ongoing and evolving landscape of the COVID-19 pandemic to support primary and secondary prevention efforts focused on improving the health of the community and thereby potentially reduce the severity of some COVID-19 cases and create a better outcome overall.

We hope this collection of rapid reviews will prove useful to the international community of researchers, policymakers and clinicians, and serve as a foundation upon which to build a greater understanding of the role of TCIM in new and emerging health issues such as COVID.

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