

5 minutes with... Giselle Cook

Jacqui Fahey | Educator 01/10/20



In 5 minutes with ...

Giselle discusses a recent research project exploring the evidence for the beneficial effects of natural medicines on improving immunity and prevention of viral infections.

Giselle's details ...

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What is the current project you are working on? It's a rapid review that will be one of a collection to be featured in the coming edition of the Advances in Integrative Medicine journal.

The World Health Organisation approached The World Naturopathic Federation (WNF) around March this year and asked them to quickly collect research data on natural therapies that could be beneficial to treat, or to prevent, Coronavirus Disease (COVID-19). There was a call out to naturopathic researchers around the world when I received an email from the NHAA, seeking any members who are researchers, to help undertake these rapid reviews. The goal was to quickly publish papers to support existing evidence for the beneficial effects of natural medicines on improving immunity and prevention of viral infections, with specific respect to human clinical intervention trials involving acute respiratory viral infections.

There were approximately twenty reviews conducted between April and July 2020 with research teams that were assembled almost overnight. On our team of seven researchers were academics and practitioners from institutions in Madrid, Brisbane, Armidale, Adelaide, and



Sydney, who came together virtually on this one project. We were assigned the topic of essential oils with respect to respiratory infections. The WNF decided to investigate studies pertaining to the clinical effects of treatments such as zinc, vitamin C, Vitamin D, N-acetyl cysteine (NAC), Sambucus nigra (Elderflower), Echinacea purpurea, Glycyrrhiza, honey, breathing and mind-body therapies and yoga.

As I am currently enrolled in a PhD in Medicine at Sydney University, I have access to extensive online library databases, as well as some time to undertake data collection, I assisted with the search for clinical trial publications on essential oils used in the management of acute respiratory infections. The lead authors - Dr Joy Bowles PhD, an organic chemist and researcher in essential oils at UNE, and Dr Sebastian Prall, heilpraktiker and naturopath working in Barcelona - headed up our team and assisted in refining our search. Most of the final papers we selected were from European studies, interestingly, and Dr Amie Steele at UTS provided an academic overview.

Unfortunately, because it's still early days in the COVID-19 pandemic, we did not find any specific data with respect to the clinical benefit of using essential oil preparations in the management of coronavirus infections, although one paper described the potential use of eucalyptus oil *in vitro* for treating SARS-CoV-2. Commercially available essential oil capsules Myrtol® (a mixture of essential oils of *Eucalyptus globulus* (eucalyptus), *Citrus sinensis* (sweet orange), *Myrtus communis* (myrtle) and *Citrus limonum* (lemon)) and Tavipec® (*Lavandula latifolia* (spike lavender)) showed promise in the management of acute viral respiratory infections, for both reducing the severity of symptoms and duration of illness.

We were only interested in human randomised controlled clinical trials, no animals or *in vitro* studies. Certain actives in essential oils have been shown to kill SARS-CoV-2 *in vitro*, but these were not included in our review as we were restricted to reporting on human trials only.

Will this review be published? Yes, the article is in press now, for publication in *Advances in Integrative Medicine* journal. As it's a rapid review, it will not be peer-reviewed, which must be taken into consideration in terms of its academic validity.

This was only exploratory research, attempting to meet the current global challenge of identifying any available natural treatments, which may be accessible for the general population, to potentially offer protection against COVID-19 infection. The idea of these being rapid reviews was also to immediately promote knowledge of natural medicines and treatments which can be safely employed to protect against this contagion, at a time when no medical option for effective treatment has yet been either identified or proven.

At the end of the review, we concluded that further research needs to be conducted specifically into COVID-19 and to look more thoroughly at potential therapeutic benefits of other essential oils, nutritional medicines, and herbs.

How did the research into the other herbal medicines and nutrients turn out in the rapid review? Of all the studies conducted, it is interesting that vitamin D, zinc, *Sambucus nigra* and NAC proved to be quite effective in the management of respiratory viral infections. These reviews are being released almost weekly online via Science Direct's newsletter and once they have



published in the journal *Advances in Integrative Medicine* I would commend all naturopaths and herbalists to read these reviews, to be able to offer evidence-based prescriptions for patients concerned about coronavirus infection risk. It is worth also mentioning that adverse events were rare with these interventions and no serious events were reported in any of these categories.

To clarify, the review was conducted on ingestible capsules of essential oils? Yes, there was one product that was a topical oral spray from Israel, the rest were oral capsules from Germany, Austria, Poland and Crete. There was one recommendation for inhaling these essential oils because inhalation versions would be really valuable for conditions like inflammatory lung disease or inflammatory sinus activity.

How long did the rapid review take? This particular review took us three months to complete. We knuckled down as a team and within one week we had scoured everything to review. We used Trello for tracking our reviews and met on Zoom two or three times a week to discuss the exclusion and inclusion criteria for the search.

We had to narrow it right down, to exclude those studies reporting on the management of bacterial infections. Our interest was in identifying essential oils used to treat acute viral infections within 5 days of symptom initiation; if it went beyond that period bacterial contamination could be present.

Compared to a regular review, this was done in a relatively short period of time. We pulled all the data together, then the whole team reviewed the drafts and delivered the final papers to the lead authors for writing up. By comparison, I have just submitted a systematic review for journal publication as part of my PhD which so far has taken me six months to get to this stage (currently under peer review). I'm researching equine fertility and probiotics, as a preparation for human studies, exploring firstly if probiotics are safe and tolerable for use in horses. Horses have a different intestinal structure to humans and probiotics have been appropriated from human use into equine research and we don't yet know if that's a good idea.

How do practitioners find out about being involved in a rapid review project? If you're wanting to be involved in a rapid review or other research group such as this, I believe it's key to be involved with an association. The NHAA made a call out to all its practitioners, so if you have the time, you could become involved, even in a small way. If you're a tutor at an academic organisation, such as college or university, it can be the starting steps into academia. I've always married academia with my clinical work. I've always either taught at college or university as well as doing the clinical work. That way you know the academic system a little and are able to connect with mentors to guide you into academic activity. I met Dr Joanna Harnett, PhD, ND, my supervisor, and mentor in the School of Pharmacy at Sydney University, at a NHAA conference. I was looking for a supervisor who is aligned with my interests and it has been the perfect connection. Joanna was also a clinical naturopath and her mentoring me has offered me so much scope.

Practitioners can start their academic writing by preparing a case report. Dr Jon Wardle has put together a guideline for writing clinical case reports, which can be an N of 1, or a series, or a



subject that hasn't been addressed before in the literature. Two things to bear in mind – write them as case studies as it's easier to get that published that way; and always document well what you're doing.

Yes agreed, vital.ly Commons has available a case report template for practitioners to use, we referred to some of the wisdom of Jon Wardle's guidelines into this template. Practitioners can also have their case reports published on vital.ly Commons. That's fantastic. Being involved in research is exhilarating. If there is something that isn't in the literature and you are able to contribute to the public domain of knowledge, there is a real sense of purpose and satisfaction in that... and patients appreciate it. It is a confirmation that you have looked deeply into your subject and that you have a healthy professional curiosity.

Thank you Giselle for sharing about your project and your journey in working within the academia space.

Common Respiratory Diseases study

Next Practice Health

Editors note 02 October 2020: The review has now been published <u>Effects of essential oils on symptoms and course (duration and severity) of viral respiratory infections in humans: A rapid review Congratulations Giselle!</u>