



Acupuncture in Physiotherapy

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Acupuncture in Physiotherapy is printed twice a year for the membership of AACP. It aims to provide information for members that is correct at the time of going to press. Articles for inclusion should be submitted to the clinical editor at the address below or by email. All articles are reviewed by the clinical editor, and while every effort is made to ensure validity, views given by contributors are not necessarily those of the Association, which thus accepts no responsibility.

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The Association

The British association for the practice of Western research-based acupuncture in physiotherapy, AACP is a professional network affiliated with the Chartered Society of Physiotherapy. It is a member-led organization, and with around 6000 subscribers, the largest professional body for acupuncture in the UK. We represent our members with lawmakers, the public, the National Health Service and private health insurers. The organization facilitates and evaluates postgraduate education. The development of professional awareness and clinical skills in acupuncture are founded on research-based evidence and the audit of clinical outcomes.

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Editorial

Welcome to 2020!

We have a diverse mix of papers and case reports to start the year off.

Firstly, a case of Multiple Systems Atrophy from Jenny Baines (pp. 53–60). A familiar combination of stretching and strengthening was used with less familiar acupuncture focussing on functional improvement. Baines also changed the original choice of points to include those for anxiety and relaxation. A good combination!

Another example of sensible use of a Chinese speciality comes from Jo Godley (pp. 61–69). This report covers two cases involving soft tissue irritation of the lateral foot around the base of the 5th metatarsal. This is a good example of finding similar cases in order to test a treatment. The perfect way to start a research programme!

Emma Hammerton, working in urogynaecology, finds overactive bladder (OAB) a common problem (pp. 71–81) and discovers herself partly supporting the findings of Mak *et al.* (pp. 17–30), who found when comparing seven large scale studies that acupuncture was comparable to medication – perhaps not statistically better, but certainly worth further investigation.

Crystal Reno (pp. 83–93) offers acupuncture management of chronic neck pain (CNP). Again, an exercise programme was combined with the acupuncture. The patient responded well, with subjective improvements involving improved sleep and decreased headache and muscle tension.

Joy Nobis (pp. 95–101) used acupuncture for the successful management of Trigeminal Neuralgia in a patient diagnosed with Multiple Sclerosis. Traditional Chinese acupuncture points were used, and the good response was measured on both of the scales used in the study. Personally I'm always pleased to see neuro patients treated.

We should use acupuncture in this way more!

We are lucky to have another interesting paper from Natalie Saunders and Kath Berry, *Paediatric Acupuncture: The Evidence* (pp. 47–52).

Editorial

While written essentially from the viewpoint of paediatric medicine, it is an interesting read, particularly valuable for members with children of their own! Clearly written and supported by a very good selection of research, it will be a useful document.

Finally, two more thought-provoking papers.

Nature Therapy: An Essential Prescription for Health by John La Puma (pp. 11–15). Not in any way about acupuncture, but still fascinating.

Efficacy of acupuncture versus sham acupuncture for postpartum depression disorder (PPD): Study protocol for a randomized controlled trial by Zhou *et al.* (pp. 31–42). A good attempt at an RCT protocol. We will look out for eventual results.

Dr Val Hopwood FCSP, FAACP

Clinical Editor, Acupuncture in Physiotherapy

Chairman's report

Welcome to the Spring 2020 edition of *Acupuncture in Physiotherapy*. I would like to begin this report by welcoming Paul Battersby as the new CEO of AACP. Paul brings a wealth of knowledge to the AACP as a tutor and our Clinical Advisor. He has taken up the reins and is relishing the new challenge of overseeing the development of a variety of projects at Head Office. You can hear from Paul in the Chief Executive Officer's report (page 9), where he discusses his first few months within the role and his plans for the future.

Since our Autumn 2019 edition we have successfully launched the AACP app. This is a new exclusive member benefit, boasting over 70 anatomical point location videos, a digital CPD log, news and more. If you haven't downloaded it already, it is available from the Apple Appstore or Google Playstore. The initial reaction has been incredibly positive and we hope to bring members even more useful content over the coming months.

I'd also encourage all our members to log on to the Dashboard – <https://www.aacp.org.uk/members/dashboard> to ensure they are taking full advantage of the opportunities we create, including the brand-new Video CPD (My Benefits > Video CPD). These have been added to provide 'bitesize' CPD hours which members can watch at a time convenient to them. We have collated a list of esteemed past conference speakers for these including Susan Falsone, Dr Gustavo Reque Rydberg and Kevin Young. Once a video is selected, viewers are presented with a link through to their CPD log to record learning objectives and outcomes.

Work continues elsewhere on the launch of the AACP Advanced Diploma in Traditional Chinese Medicine. These modules respond to the growing demand for a high-quality vocational qualification in acupuncture in the field of complementary medicine. On completion of the diploma, delegates will be able to pursue a

challenging and fulfilling career as a professional practitioner in acupuncture and areas allied to Chinese medicine.

Many of you engage with our flagship Annual Conference and may be questioning the lack of fixture on the 2020 calendar. The AACP made the decision to take this year to pursue Video CPD, the Diploma and acquire a new range of courses to ensure we are providing our membership with an exciting and vibrant range of opportunities to broaden their working knowledge of acupuncture.

Whilst this is the case, Claire Buckingham, the Education and Training Coordinator, and other members of the AACP team have been working tirelessly behind the scenes, cultivating plans for events in 2021 offering new up-to-date content. We are taking guidance from your valued feedback and ensuring that these are dynamic nationwide events, boasting the leading speakers within the industry.

An exciting complement to the AACP team has been the recruitment of two new Researchers to ensure we are engaging with evidence to support the integration of acupuncture and the wider benefits for its use in musculoskeletal and chronic pain conditions. You can download your copy of the 2019 revised version of our Evidence and Commissioning Pack from the members area of the website.

As mentioned previously, we were taking steps towards updating our management system and website. The decision was made to continue with our current website developers, given their deep understanding of the organisation's needs and of course those of the members using the site. Within the Autumn 2020 journal, we should be able to divulge more exciting information about what's to come from the new website. Watch this space!

The AACP continues to act exclusively in its members' interests with the administrative and management team at Head Office working hard to support members and deliver the

Chairman's report

best experience possible. If, however, there is anything more the organisation can do, then let us know and ensure the AACP stays relevant as it moves forward in this new decade.

Please feel free to get in touch with me directly (chair@aacp.uk.com).

Jonathan Hobbs
AACP Chairman

Chief Executive Officer's report

Hello to all readers of our Journal and I should like to introduce myself to you.

My name is Paul Battersby and many of you will know me as a tutor and clinical advisor. I was appointed by the Board as CEO in September 2019; coming into the post has presented an interesting challenge but one which I very much look forward to meeting successfully. The Board and Committee members and existing team have been tremendously helpful. Of course, my role as CEO does not impact on my role as clinical advisor as a portion of my contract remains focussed on clinical matters and supporting you – the members of the association.

As an Association, we are deeply saddened that at a time when positive touch has never been more needed by those in our local community, we are faced with an unprecedented situation where social distancing has become an imperative to protect the health and well-being of ourselves and our patients. From the outset, our advice to members has been to adhere to best practice and follow government and CSP guidelines, which continue to evolve daily.

As your professional association, we fully appreciate the implications that having to stop practicing will have on both your patients and your therapy practice. We will continue to offer as much support and advice as we can until we are in a position where it is safe for us all to resume practicing. Please continue to ask whatever questions you may have, and keep visiting our website (aacp.org.uk) where we will share updates and guidance.

In the meantime, you may want to make use of this free time to review some of the many and varied case reports and research that this Journal provides to members. We know from speaking to many of you that the Journal is one of the most valued benefits of AACP membership, and I do hope that it can help support you during this difficult time.

My priorities as CEO

I believe my primary role is to work with the Board, its associated Committees and the membership to further build on the positive development of services to members. A key contributor to the successful delivery of that role is communication. My initial task has been to translate our strategic plan into an integrated business plan which sets out a range of activities and projects aimed at delivering the required improvements and expansion of services.

Whilst most successful and efficient organisations work within a structure of a centralised planning and operational “core”, it is vital that this sits within an overall framework of knowledge and understanding of the needs and demands of the whole membership. For this to be achieved, it is crucial that there is effective “two way” communication to ensure the best understanding of our members’ requirements and the actual range of services that are, or will be, available. It would be very useful to receive members comments or even criticisms on these matters. (ceo@aacp.uk.com)

We already have channels of communication such as the Journal, our conferences, the HQ office staff and services, and not forgetting our website, but improvements can always be made and there are several plans to achieve these over the next few months. It is evident that there are quite a few members who seem to have little or no communication with the association either directly through participation or more indirectly via the website.

Of course, it may be that this is a sign of satisfaction with the more general benefits of membership, but it would be useful to have some clarification on this issue as we continue with our improvement agenda. We are considering conducting several mini surveys to improve our understanding and I would hope that if you are approached you will be able to spare a few minutes of your time to assist.

Chief executive officer's report

Over the 20 years that I have been involved with AACP as a member, Regional Representative Board member and tutor I have been hugely impressed with the enthusiasm, dedication and sheer hard work of a core number of members who give many hours of personal time to Association business. It is critical to future progress and success that we can widen this involvement and any ideas or thoughts on how this can be achieved would be most welcome; of course, even more welcome is direct input to the running of the Association.

We do get considerable and favourable feedback about the interest and value of the Journal itself, but this is only twice a year and I would

encourage all readers to access our website regularly as we seek to further develop this as our main information, education and research facility.

These first few months as CEO have been demanding but very enjoyable and I hope for more of the same throughout 2020. On a final note, I am convinced that the Association will continue to grow professionally and in membership and to achieve such growth we will deliver increasing value to all our members.

Paul Battersby
Chief Executive Officer

INSIGHT

Nature Therapy: An Essential Prescription for Health

J. La Puma

Founder, Chef Clinic, California, USA



Abstract

John La Puma, MD, FACP, is a board-certified internist, organic farmer, and author who pioneers cutting-edge topics in medicine today. Known for his work in culinary medicine, here Dr. La Puma emphasizes the importance of nature and nature therapy in medicine. Dr. La Puma believes that clinicians should be actively writing prescriptions for patients who suffer from a nature deficit.

In this article, Dr. La Puma talks about the growing field of nature therapy, important resources for clinicians, and how to prescribe such therapy to patients.

Interview

Q: How convinced are you that nature therapy is essential for improved wellbeing in our patients?

John La Puma: I believe that within a generation, nature therapy will establish its place along with nutrition and exercise as a lifestyle intervention that has both immediate and long-term health benefits. As clinicians, we are well aware that people can suffer from negative health consequences related to nature such as conditions caused by air and water pollution. However, being in and interacting with nature can also have significant positive health effects.

There is a long list of ways that nature therapy is beneficial to health. For example, studies have shown that compared to walking in urban settings, walking in forest or park settings has been linked to improved short-term memory, concentration, cortisol levels, natural killer cell number and activity, heart rate, and blood

pressure. Improved post-operative recovery, birth outcomes, and pain control have also been reported. Studies of community gardening have shown reduction in glycosylated haemoglobin in people with diabetes with no intervention other than growing vegetables. Gardeners have been shown to be less likely to develop dementia than non-gardeners.

Many forces today are converging to give rise to the field of nature therapy or green medicine, including the personal, social, environmental, and financial consequences of the disconnection from nature that many people feel. The causes of this disconnection are complex and partly related to climate change and its accelerated pace. Climate changes health. Extreme weather worsens disease, food insecurity and food quality directly, and air, water, and shelter quality and adequacy indirectly. Many people stay indoors nearly 22 hours a day and have little familiarity with nature and, worse, are fearful of it and do not know how to adapt to it.

The disconnection from nature many of us experience is also related to our obsession with personal technology. Addictive mobile

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technology has people walking across city streets with their faces glued to their phones and looking at screens for 11 hours daily on average (U. S. adults). On average, children younger than eight-years-old look at screens for 48 minutes per day, tweens nearly five hours, and teens nearly seven hours. Work and productivity are often prioritized over recreation and family, never mind sleep and wellbeing.

If we were better connected personally to our place in the natural world and realized that the dual forces of global warming and overwork were separating us from our natural position as part of nature instead of apart from it, we would be less likely to stand by and watch its plunder as it and we are threatened.

I believe that Nature Deficit Disorder (NDD), as defined by journalist and visionary Richard Louv in his book *Last Child in the Woods: Saving our Children from Nature Deficit Disorder* (2008), is a true clinical problem and not just a social or behavioural one in both children and adults. The causes of NDD include increasing urbanization without greening and digital distraction. Those at greatest risk are people who work inside constantly, especially in urban centres, who are tethered to their devices and are relatively sedentary. NDD has many associated clinical conditions such as obesity, cardiovascular illness, attention-deficit disorder, generalized anxiety disorder, myopia, and burnout syndrome.

Q: What does nature therapy as a field in medicine ultimately include? Is it more than just getting outside regularly?

John La Puma: Nature therapy is a new evidence-based field in medicine defined as the prescriptive, evidence-based use of natural settings and nature-based interventions. Its mission is to prevent and improve signs, symptoms, clinical conditions, and wellbeing, and its vision is to be readily available to every family, regardless of proximity to blue or green space. The existing research in nature therapy/green medicine is in somewhat disparate fields such as horticulture, interior design, architecture, forestry, wildlife management, auditory and colour science, and herbal and botanical medicine. Nature therapy is also much more advanced in countries other

than the United States. The United Kingdom, Australia, Japan, Korea, and much of northern and central Europe have traditions in the field, and some of the research out of these countries has not yet been translated.

Nature therapy has at least 11 different sub-disciplines that include:

- Adventure therapy
- Animal-assisted (pet) therapy
- Blue care
- Care farms
- Ecotherapy
- Forest bathing
- Green exercise
- Nature meditation/guided visualization
- Nutrition (herbal, botanical, floral)
- Therapeutic horticulture/horticultural therapy/gardening
- Wilderness immersion

The number of clinicians practicing green medicine/nature therapy is unknown. However, increasing numbers of clinicians are actively prescribing nature therapy to their patients. Occupational and recreational therapists often guide their patients to therapeutic horticulture, pet therapy, and care farms; physicians in emergency medicine and other specialties often lead wilderness, green exercise, forest, and adventure groups; and psychologists and psychotherapists sometimes take additional training and practice as eco-therapists.

Q: How did you personally become interested in the field of nature therapy?

John La Puma: When I told my clinician friends that I was rehabilitating an old nursery and converting it into an urban teaching orchard and farm, they in turn told me about the beauty of getting lost in their own rose garden, building a pizza oven outdoors, or about their vacation to the ocean or mountains where they sail, snorkel, hike, or ski. Gradually, it dawned on me that my friends were going outside to feel better and reset their stress levels and personal health, and so was I.

I fell in love with the process of creating a certified organic farm and participating in regenerative agriculture so much that I went back

to school and received a perma-culture design certificate and became a certified California naturalist. I began to learn to keep bees and dogs, manage water, foster fungal ecosystems, and plant and grow vegetables and fruit-bearing trees. Interestingly, having and caring for houseplants can offer some of the same benefits as caring for plants outside, and houseplants can improve the microbiome of the built environment and individual respiratory and cognitive conditions. Being in contact with living plants and animals inside can be useful as well as fun.

I began to use time spent on the farm as a preventive and therapeutic tool, much like we do in clinical medicine with patients. When I learned that this type of work and that being outside improved blood pressure, cortisol, anxiety, mood, and focus, and that plants and water were being used by corporate institutions worldwide to enhance worker creativity and productivity and improve learning, I knew that I needed to bring some of what I had learned to medicine and medical practice.

Q: When should clinicians think about prescribing nature therapy to their patients, and which medical conditions in particular may benefit from such therapy? How might they write a prescription for nature therapy?

John La Puma: There are a wide variety of people with medical conditions who would benefit from nature therapy. Five conditions that specifically have been shown to benefit from time spent outside include attention-deficit/hyperactivity disorder (ADHD), anxiety, insomnia, hypertension, and myopia. The research continues to emerge in this area, showing benefits for physical, emotional, mental, and spiritual wellbeing.

But the most important point that I want to drive home to other clinicians is that they should think about prescribing nature therapy whenever they identify a nature deficit. My two question assessment for patients is: “Have you been outside yet today?” and “Have you been outside in nature in the last week to walk, hike, play with a pet, listen to birds, garden, or have a picnic?” If the person answers “no” to both

questions, then they need a prescription for nature therapy.

To write a prescription, clinicians should be as specific as we are with prescription medication. Prescribe a specific exercise or activity in a specific place/location on specific days of the week for a specific duration, and whether alone or with others. The prescription should include health goals and might read like this: “Walk in Lincoln Park for 20 min with your phone off with a walking buddy six days per week. Write down your blood pressure, pulse, mood, and/or stress level five minutes before and after the walk.” Clinicians can write similar prescriptions for forest bathing and home gardening.

I often write a prescription for a five-minute immersion in a park or other natural spot, and ask people to cycle through their senses, starting with sound first, and giving them specific exercises for each sense. This helps to reset their attention and helps them focus not on the list of things they have to do or current demands, but instead on their immediate surroundings. People invariably feel better after such a session.

For clinicians who want to learn more about nature therapy, there are many available resources. To name a few, Frumkin *et al.* (2017) recently summarized a research agenda and evidence-based health benefits for nature therapy. Britton *et al.* (2018) recently published a rigorous, systematic review of blue-space interventions and suggested more topics for research in this area. I also published an open-access 20-page white paper defining the different subspecialties in nature therapy and ways that people can interact with nature, which can be accessed online at <https://drjlp.com/members>. This may be a good place to start, and I also included links to additional resources in the paper.

The Children and Nature Network has a research library of about 600 abstracts currently, with links to the full article for most (www.childrenandnature.org/research-library/). Topics include ADHD, anxiety, autism, behaviour, learning problems, ophthalmologic disorders, and barriers to nature engagement. The Walk with a Doc website (walkwithadoc.org) is well-established and helps clinicians and their

communities get outside. The International Nature and Forest Therapy Alliance (INFTA) organization is authoritative about forest bathing (<http://infata.net/>).

Q: Please share a few cutting-edge research findings about the benefits of spending regular time in nature.

John La Puma: There are three areas of research that I would like to mention, including exercise, nature views, and myopia in children. When it comes to exercise, clinicians have a special tool to use and that is talking about exercise and location with their patients. It turns out that the location of exercise can be important for optimizing health. Exercising in nature—in sight of and preferably near water or greenery—is more effective and therapeutic and less expensive than exercising indoors without nature in sight. A recent Stanford study of nature therapy showed significantly reduced rumination after a 90-min walk in nature compared to a 90-min walk through an urban environment (Bratman *et al.* 2015). In this same study, people who strolled through nature for 30 min a day reported a decrease in negative thinking. On magnetic resonance imaging results, the nature walkers showed lower activity in an area of the brain linked to risk for mental illness compared to urban walkers. Another study showed that participants in a forest walking group had higher energy levels and lower levels of interleukin-6 and tumour necrosis factor compared to an urban exercising group (Mao *et al.* 2012).

Next is the importance of having a view of nature, even if it is a poster. Adults in the United States spend the majority of their time indoors. Hospitalized patients spend all their time indoors. A pioneering study by psychologist Roger Ulrich showed that among 23 matched postoperative participants, those with a view of nature from their bed needed fewer analgesics and had fewer complications and shorter hospital stays compared to those whose view was a brick wall (Ulrich 1984).

A pilot program created by my colleagues and me has also included using virtual reality (VR) nature scenes of the beach, underwater

scenes, and sky scenes with children who are receiving flu shots. In our program, patients in the VR group used a free app (Aquarium VR) for approximately 30 s in total before and during vaccination. Children using VR reported 48% less pain than controls. Parents' perception of their child's pain in the VR group was 45% less than that of parents of controls. Healthcare staff reported VR children had 74.7% less pain than controls. We believe nature views are not simply a distraction from pain, but instead engage parasympathetic and biophilic impulses that may have application in other acute and chronic pain conditions. Our program has expanded since the pilot concluded, and we now use nature VR in routine paediatric vaccination.

Another area of interesting research shows that time spent outside improves myopia in children. An epidemic of increased screen time has been linked to increased myopia in school-age children. One study that included 693 children in 16 different schools showed that 11 hours of 1000 lux exposure or more reversed myopia. (Wu *et al.* 2018). Both myopic shift and axial elongation were significantly reduced, and a risk of rapid myopia progression dropped by more than 50%. To prevent myopia, both spending time outdoors without devices and spending screen time in both bright and dim light should be considered, as should unstructured outdoor free play in a natural environment.

These are just a few areas of important research occurring in the field. Happily, a number of world-class organizations, including the World Health Organization, the Burroughs Wellcome Fund, and the National Institutes of Health have begun to fund research to establish whether nature therapy can positively and measurably impact specific health conditions as well as wellbeing. While research about nature therapy is currently largely epidemiological, observational, and retrospective, it is moving quickly toward randomized double-blind controlled trials. It can be argued that this is not the only or most valid research method for the field. However, having such trials will help gain acceptability for it in more mainstream medical and payer channels.

Q: Do you have any final advice for clinicians who also probably don't spend enough time outdoors?

John La Puma: Walk the talk, literally, for five minutes daily if it's a new habit. The strongest predictor for patient behaviour change is their physician's behaviour. Physicians who exercise will counsel their patients about it more than those who don't exercise, and the same is true for those who eat healthfully or meditate and so on. Practicing healthy behaviours ourselves leads to greater counselling of others in this area.

If a clinician schedules the time to go for a walk, he or she can mention it to patients all day long and ask them if they will do the same. Putting up the right posters of nature scenes in the office—instead of abstract art or bare walls—will likely lower patient anxiety, blood pressure, and pulse rate. Houseplants can clean petroleum products from the air, and NASA has ranked the top plants for that purpose (Wolverton *et al.*). If you buy air-cleaning plants for the office (and yes, they may be inefficient, but for now, NASA data about them are the best we have), you can talk about them. I've found those indoor plants to be nearly indestructible.

Lastly, deliberate nature exposure improves productivity, focus, and creativity. Yet, many people work long hours in offices in pursuit of these ends, despite the absence of data showing that productivity, focus, and creativity are improved with long hours. Nature might be offered as a way to optimize the day of a busy inside-only clinician: take five min daily outside, cycle through the senses (sound, smell, sight, touch, and—if it's safe—taste). It's easy to stay indoors and passively absorb media. However, nature, including interacting with plants, animals, and water, can help us improve our own health and wellbeing and pay it forward to our patients and colleagues.

References

Bratman G. N., Hamilton J. P., Hahn K. S., *et al.* (2015) Nature experience reduces rumination and subgenual

prefrontal cortex activation. *Proceedings of the National Academy of Sciences of the United States of America* **112** 8567–8572.

Britton E., Kindermann G., Domegan C., *et al.* (2018) Blue care: A systematic review of blue space interventions for health and wellbeing. *Health Promotion International* **103**, 1–20.

Frumkin H., Bratman G. N., Breslow S. J., *et al.* (2017) Nature contact and human health: A research agenda. *Environmental Health Perspectives* **125** (7).

Louv R. (2008) *Last Child in the Woods: Saving our Children from Nature Deficit Disorder*. Algonquin Books of Chapel Hill, Chapel Hill, NC.

Mao G. X., Lan X. G., Cao Y. B., *et al.* (2012) Effects of short-term forest bathing on human health in a broad-leaved evergreen forest in Zhejiang Province, China. *Biomedical and Environmental Sciences* **25** (3), 317–324.

Ulrich R. S. (1984) View through a window may influence recovery from surgery. *Science* **224** (4647), 420–421.

Wolverton, B. C., Johnson A. & Bounds K. (1989) Interior landscape plants for indoor pollution abatement. *National Aeronautics and Space Administration (NASA)*. Online document at: <https://ntrs.nasa.gov/search.jsp?R=19930073077>. Accessed January 30, 2019.

Wu P. C., Chen C. T., Lin K. K., *et al.* (2018) Myopia prevention and outdoor light intensity in a school-based cluster randomized trial. *Ophthalmology* **125** (8), 1239–1250.

John La Puma, MD, FACP, is a board-certified internist, organic farmer, and author. He is the founder of Chef Clinic and A Green Rx and co-founder of ChefMD.

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