**Medicinal plants and their use in forest-based interventions**

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ABSTRACT:

In our fast-moving and changing world, affected by climate change and migration, anxiety, chronic stress, burn-out or depression become epidemic. “Shinrin-yoku” (forest bathing), a traditional Japanese practice of immersing oneself in the atmosphere of the forest by mindfully using all senses, has expanded into mainland Asia and the Western world to become popular worldwide. This important inspiration for social and therapeutic nature-based interventions aims at reducing stress, enhancing human health and connecting people with nature, place and community. Forest bathing and therapy methods, now adapted to various cultural, social and geo-political contexts, may, depending on their cultural acceptability, prove useful for migrants from tropical regions who experienced many trauma in their difficult dis-connection from their environment and culture.

We analysed interlinkages between medicinal plants growing in the forests, the ecosystem services they provide and the use of medicinal plants in various forest-based health practices. Wild medicinal and edible plants, including medicinal trees, appear common in forest, rural and urban settings. The volatile organic compounds, "phytoncides", released from plants and trees, are proven to possess antimicrobial properties, decrease adrenaline levels, enhance human Natural Killer Cell activity and are considered important contributors to health outcomes. Medicinal plants are now considered to play an important role in forest therapy, providing various ecosystem services (e.g. provisioning, supporting or cultural). People attending forest bathing and forest therapy walks often forage medicinal and food plants. Besides stimulation of all senses that participants experience during forest therapy walks, people often also specifically explore medicinal plants by smelling, touching or testing them.

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