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Okayama University research: Self-administered aroma foot massage may reduce symptoms of anxiety

(Okayama, 08 June) Researchers at Okayama University conduct the first community-based study on the effects of self-administered aromatherapy foot massage on stress and anxiety symptoms. The results suggest aromatherapy massages might provide an inexpensive, simple way of managing anxiety.

The continuing popularity of complementary therapies, such as aromatherapy and massage, has prompted scientists to investigate the effects of such therapies on the body in more detail. Complementary therapies are said to reduce the symptoms associated with stress and anxiety, and therefore may reduce the chances of severe illness, such as hypertension and heart disease. The precise effects on the body following such therapies is unclear, however.

Previous studies have focused on the effects of massage and aromatherapy treatments on blood pressure and mental state in hospitalized patients in Japan, but none have been conducted on individuals living in the community. Now, Eri Eguchi and co-workers at Okayama University, together with researchers across Japan, have conducted the first study into the effect of aromatherapy-based foot massage on blood pressure, anxiety and health-related quality of life in people living in the community.

57 participants took part in the study; 52 women and 5 men. Baseline blood pressure and heart rate values were taken at the start and end of the four-week trial period, as well as at a follow-up session 8 weeks later. Participants also completed questionnaires on anxiety status and health-related quality of life at each stage of the trial. The participants were divided into two groups, and one group were taught to perform a 45-minute aromatherapy-based foot massage on themselves three times a week for four weeks.

The results suggest that aroma foot massage decreased the participants' average blood pressure readings, and state of anxiety, and tended to increased mental health-related quality of life score. However the effect of massages was not significant with changes in other factors such as physical health-related quality of life scores and heart rate.

In their paper published in March 2016 in PLOS One, Eguchi's team are cautiously optimistic about the potential for self-administered massage to reduce anxiety in the population: "[although] it was difficult to differentiate the effects of the aromatherapy from the effects of the massage therapy... [the combination] may be an effective way to increase mental health and improve blood pressure."

Background

Aromatherapy and massage

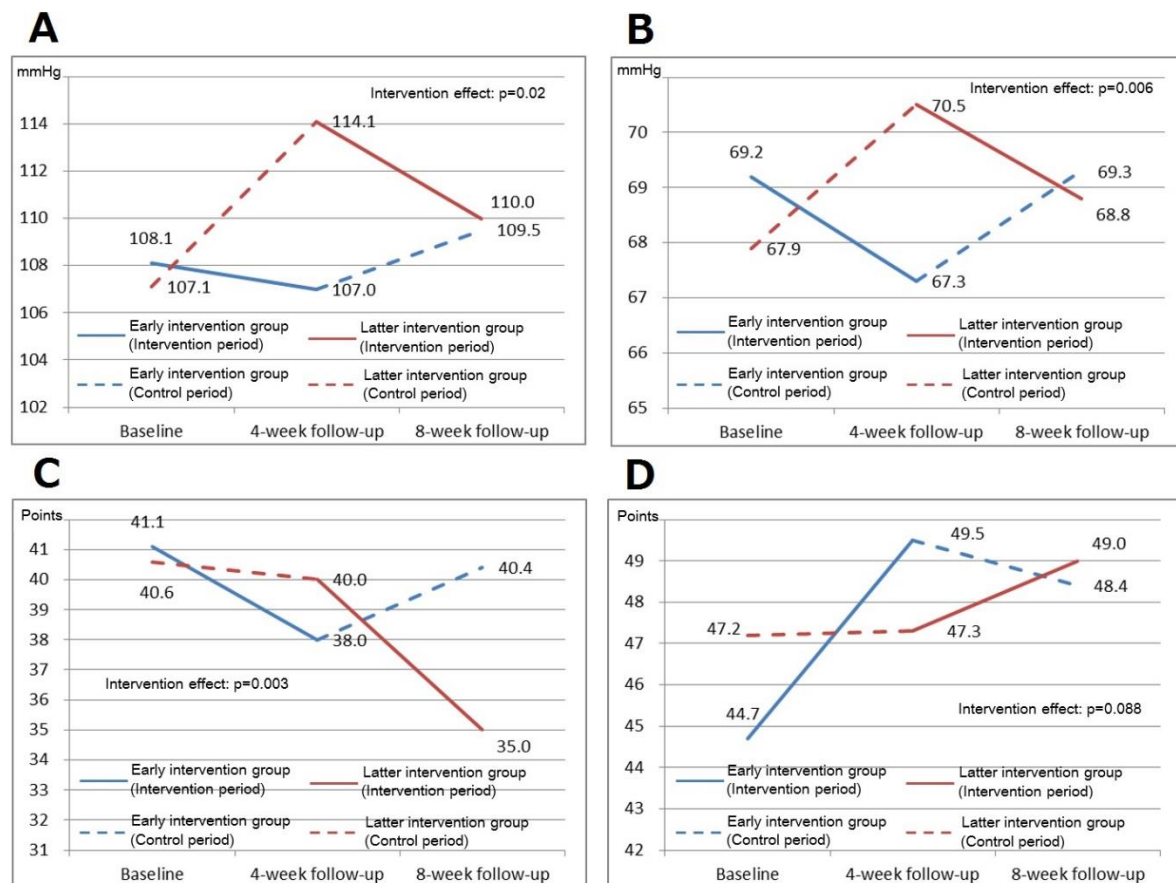
Aromatherapy has long been used to relieve stress and anxiety in populations across the globe. Different aroma essential oils are said to have different properties, and are used to induce relaxation and promote well-being. Trials have indicated that certain essential oils, when inhaled, can reduce blood pressure levels and alleviate depression by stimulating the olfactory system.

Massage (in its many forms) also has a long history in therapeutic medicine, and the practice of manipulating key pressure points in the body to induce relaxation has been shown to improve mental and physical health. However, detailed scientific studies of the effects of aromatherapy foot massage – an increasingly popular treatment in Japan – on blood pressure and perceived quality of life are limited.

Significance and further work

While the trial carried out by Eguchi and her team is limited in some respects, their results provide an initial starting point from which to extend studies into the benefits of aroma foot massage for the general population. Their findings that massage, or the aromatherapy, or a combination of both, reduce blood pressure readings (at least in the short term) warrants further investigation.

Eguchi and her team acknowledge that their decision to advertise for participants may have encouraged more health-conscious and pro-active people to apply. They also received far more applications from women than men, although their age-range (from 27 to 72) was diverse. Further work is needed to determine the effect of aroma foot massage on specific age and sex categories, for example, before such interventions are encouraged in the wider population.



Caption

- A.** Systolic blood pressure for early intervention and latter intervention groups at baseline, 4-week follow-up, and 8-week follow up. Intervention effect adjusted for individual participants and period effect was significant.
- B.** Diastolic blood pressure for early intervention and latter intervention groups at baseline, 4-week follow-up, and 8-week follow-up. Intervention effect adjusted for individual participants and period effect was significant.
- C.** State anxiety score for early intervention and latter intervention groups at baseline, 4-week follow-up, and 8-week follow-up. Intervention effect adjusted for individual participants and period effect was significant.
- D.** Score of mental health related quality of life for early intervention and latter intervention groups at baseline, 4-week follow-up, and 8-week follow-up. Intervention effect adjusted for individual participants and period effect had borderline significance.

Reference

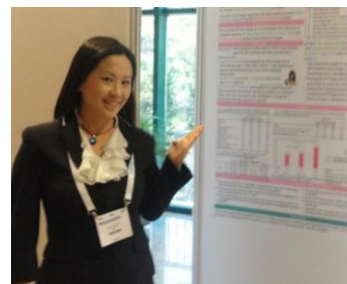
Eri Eguchi, Narumi Funakubo, Kiyohide Tomooka, Tetsuya Ohira, Keiki Ogino, Takeshi Tanigawa. The effects of aroma foot massage on blood pressure and anxiety in Japanese community-dwelling men and women: A crossover randomized controlled trial. *PLOS One*, March 2016

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Correspondence to

Assistant Professor Eri Eguchi, MPH, Ph.D.
 Department of Public Health,
 Okayama University Graduate School of Medicine,
 Dentistry, and Pharmaceutical Sciences, 2-5-1,
 Shikata-cho, Kita-ku, Okayama 700-8558, Japan.
 E-mail: eri_eguchi@okayama-u.ac.jp



Assistant Professor Eri Eguchi

Further information

Okayama University
 1-1-1 Tsushima-naka , Kita-ku , Okayama 700-8530, Japan
 Public Relations and Information Strategy
 E-mail: www-adm@adm.okayama-u.ac.jp
 Website: http://www.okayama-u.ac.jp/index_e.html
 Okayama Univ. e-Bulletin: <http://www.okayama-u.ac.jp/user/kouhou/ebulletin/>
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Okayama University is located in the heart of Japan approximately 3 hours west of Tokyo by Shinkansen.

