

An ethnobotanical survey of medicinal plant use by Chinese people in North Wales

Background:

Over 25,000 species of plants, many of conservation concern, are used in Chinese medicine (Schippmann et al. 2003). The ethnobotanical knowledge base associated with this plant diversity has been widely documented. However, there is little research into changes in medicinal plant knowledge, occurring when people migrate to new places. Previous research shows that migrant communities maintain some aspects of traditional pharmacopeia but also migrants may incorporate new plant species (Muniz de Medeiros et al. 2012). Bangor University and the Confucius Institute are currently working together to develop a Chinese medicinal plant collection at Treborth Botanic Garden (Bangor University's garden). This garden aims to promote greater awareness about Chinese horticulture, provide a new long term teaching resource at Treborth and attract the local Chinese community to Treborth. By interviewing local Chinese communities we will ensure the development of the garden includes relevant medicinal species used in contemporary Chinese medicine.

Aims

The overall aim of this study is to examine uses of Chinese medicinal plants in North Wales. The following research questions will be investigated:

- Which Chinese medicinal plant species are in contemporary use in North Wales?
- Has medicinal plant use changed with migration to the UK?
- Does knowledge of medicinal plants differ between Chinese students and local Chinese residents in North Wales?

Methods

A questionnaire survey and semi-structured interviews will be carried out with members of the Chinese community in North Wales. The questionnaire will measure knowledge of medicinal plants by showing images of ten commonly used plants in Chinese medicine. Respondents will be asked for a common name(s) and the plants use. Sam will ask participants to free-list medicinal plants used previously when living in China and current use whilst living in the UK. We will ask respondents specifically about Chinese plants and will also document novel uses of British plants which may have been integrated into the knowledge base of the Chinese migrants. Names of plants from respondents will be verified with the Chinese Medicinal Plants Authentication Centre at the Royal Botanic Gardens Kew. The data collected will be explored using 'cultural domain analysis' (Ghorbani et al. 2011).

We will initially focus on the large population of Chinese students at Bangor University. After gaining this experience. We will interview the migrant population of Chinese people in Bangor. To gain access to this community, we will work with the Confucius Institute to coordinate a public engagement event at Treborth Botanic Garden. At this event we will present the Chinese garden design plan and begin informal discussions with participants about the plant species which could be included in the garden. We will arrange with the participants, a convenient time to visit them over the following weeks for one-to-one interviews. A second public engagement event will be organised at the launch of the new garden. The results from this project will be presented and feedback from the events participants will be welcomed.

An ethics review for this project has been submitted to the College of Natural Science. The research does not involve any personal or sensitive data collection and therefore requires no ethical adjustments to the research plan.

- Ghorbani, A., Langenberger, G. & Feng, L., 2011. Ethnobotanical study of medicinal plants utilized by Hani ethnicity in Naban River Watershed National Nature Reserve, Yunnan, China. *Journal of Ethnopharmacology*, 134, pp.651–667.
- Muniz de Medeiros. P., Gustavo Taboada Soldati, Néilson Leal Alenca (2012) The Use of Medicinal Plants by Migrant People: Adaptation, Maintenance, and Replacement. *Evidence-Based Complementary and Alternative Medicine*, vol. 2012, 807452,
- Schippmann, U., Leaman, D. & Cunningham, A., 2003. Impact of cultivation and collection on the conservation of medicinal plants. *Inter-Departmental Working Group on Biological Diversity for Food and Agriculture*. Rome.