



Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevierhealth.com/journals/ctim



A nationwide population-based study of traditional Chinese medicine usage in children in Taiwan

Tzu-Ping Huang^{a,b,1}, Pi-Hua Liu^{c,1}, Angela Shin-Yu Lien^d,
Shu-Ling Yang^{a,b}, Hen-Hong Chang^{a,b}, Hung-Rong Yen^{e,f,g,h,*}

^a Department of Traditional Chinese Medicine, Center for Traditional Chinese Medicine, Chang Gung Memorial Hospital, Taoyuan 333, Taiwan

^b Graduate Institute of Traditional Chinese Medicine, School of Traditional Chinese Medicine, Chang Gung University, Taoyuan 333, Taiwan

^c Clinical Informatics and Medical Statistics Research Center, Chang Gung University, Taoyuan 333, Taiwan

^d School of Nursing, College of Medicine, Chang Gung University, Taoyuan 333, Taiwan

^e Research Center for Traditional Chinese Medicine, China Medical University Hospital, Taichung 404, Taiwan

^f Department of Chinese Medicine, China Medical University Hospital, Taichung 404, Taiwan

^g Department of Medical Research, China Medical University Hospital, Taichung 404, Taiwan

^h School of Chinese Medicine, China Medical University, Taichung 404, Taiwan

Available online 2 May 2014

KEYWORDS

Complementary and alternative medicine;
Children;
Pediatrics;
Prevalence;
Traditional Chinese medicine

Summary

Objectives: To characterize the application of traditional Chinese medicine (TCM) among pediatric patients.

Design and setting: This study examined data sets from the National Health Insurance Research Database in Taiwan. Two cohorts, each with one million patients who were randomly sampled from the beneficiaries of the National Health Insurance Program from January 1 to December 31 in 2005 or 2010, were chosen for analysis. Children had at least one TCM outpatient clinical record were defined as TCM users, whereas children who had no TCM outpatient records were defined as non-TCM users.

Main outcome measures: The demographic data, treatment modalities and the disease distributions of the pediatric TCM users were analyzed from two randomly sampled cohorts.

Results: Overall, 22% and 22.5% of the children used TCM in 2005 and 2010, respectively. The utilization rate of TCM increased with age. Herbal remedies were the most commonly used therapeutic approach, followed by manipulative therapy and acupuncture. There was an increasing

Abbreviations: TCM, traditional Chinese medicine; CAM, complementary and alternative medicine; NHI, National Health Insurance; NHIRD, National Health Insurance Research Database.

* Corresponding author at: Research Center for Traditional Chinese Medicine, Department of Chinese Medicine and Department of Medical Research, China Medical University Hospital, 2 Yude Road, North District, Taichung 404, Taiwan. Tel.: +886 4 2205 2121x7507; fax: +886 4 2236 5141.

E-mail address: hungrongyen@gmail.com (H.-R. Yen).

¹ These authors contributed equally to this work.

<http://dx.doi.org/10.1016/j.ctim.2014.04.002>

0965-2299/© 2014 Elsevier Ltd. All rights reserved.

trend of using herbal remedies (increased from 65.6% to 74.4%) and acupuncture (increase from 7.5% to 11.4%), but there was a markedly decreased use of manipulative therapies from 25.6% to 12.3% from 2005 to 2010. There is an obvious increasing use of TCM due to diseases of the digestive system, skin/subcutaneous tissue and genitourinary system from 2005 to 2010. A further comparison of the prevalence rates between TCM and non-TCM visits indicated that allergic rhinitis, dyspepsia, injury and musculoskeletal diseases, as well as menstrual disorders, were the main diseases that children tended to visit TCM clinics in Taiwan.

Conclusions: Our nationwide population-based study revealed the high prevalence and specific usage patterns of TCM in the pediatric population in Taiwan. The results of this study should provide valuable information for physicians, parents and the government concerning pediatric healthcare.

© 2014 Elsevier Ltd. All rights reserved.

Introduction

The use of complementary and alternative medicine (CAM) has increased in Western countries over the past few decades.^{1–4} The prevalence of CAM usage has increased not only in adults but also in pediatric patients.^{5–7} According to the National Health Interview Survey in the United States, conducted in 2007, 11.8% of children had previously used some type of CAM therapy.⁸ Because there has been growing interest in using CAM to treat pediatric populations around the world,^{9–12} comprehensive studies on its prevalence, usage patterns, efficacy and safety are important for pediatric healthcare.

Traditional Chinese medicine (TCM), defined by the National Center for Complementary and Alternative Medicine (NCCAM, U.S.A.) as a whole medical system of CAM,¹³ is a well-established medical system that has been used for more than 2000 years. TCM has commonly been used by the Chinese population, as well as in many other countries.¹⁴ According to a previous study in Singapore, herbal use was popular for children, and 80% of parents admitted concurrently using TCM and conventional medicine for their children.¹⁵ TCM has been widely used to treat infectious diseases,^{16,17} allergic rhinitis,¹⁸ asthma,¹⁹ atopic dermatitis,^{20,21} digestive dysfunction,^{22,23} neuropsychiatric disorders,^{24,25} hematologic diseases,^{26,27} precocious puberty²⁸ and urologic diseases,²⁹ as well as many other illnesses that occur during childhood and adolescence.

TCM is also frequently used in Taiwan.³⁰ A small-scale survey of 63 pediatric oncology patients in Taiwan revealed that 73% of these patients had received CAM at some point in the past, and 20% of them had previously been treated with TCM.³¹ However, previous studies on the use of TCM among children (by questionnaire, in-person interviews or telephone interviews) have been limited by their methodology.³² Large-scale studies to investigate the issue fully are necessary.

In Taiwan, TCM has been reimbursed by the National Health Insurance (NHI) program since 1996. Although the general definition of TCM includes Chinese herbal medicine, proprietary Chinese medicine, acupuncture, moxibustion, manipulation, mediation, Qi management, etc. The NHI Program in Taiwan categorized TCM therapy into three major modalities: (1) Chinese herbal products manufactured

by GMP-certified pharmaceutical companies (concentrated scientific TCM granules; finished herbal products), (2) acupuncture/moxibustion (including acupuncture, moxibustion and cupping therapy) and (3) manipulative therapy (including acupressure, chiropractic, and tuina massage). All of the claims data have been collected in the National Health Insurance Research Database (NHIRD). To characterize the utilization patterns and trends in TCM usage among the pediatric population, we analyzed two randomly sampled cohorts of one million beneficiaries from the NHIRD in 2005 and 2010.

Materials and methods

Data source

This study used data sets from the NHIRD in Taiwan. In Taiwan, the NHI has reimbursed nearly all of the costs of Western medical services for Taiwanese inhabitants since 1995. At the end of 2005, approximately 22 million beneficiaries (accounting for nearly 98% of the total population in Taiwan) were enrolled.³³ Furthermore, at the end of 2010, this insurance covered approximately 23 million enrollees, approximately 99.89% of the total population in Taiwan.³⁴ The use of TCM has been reimbursed by the NHI since 1996. All reimbursed TCM services (Chinese herbal remedies, acupuncture/moxibustion, and manipulative therapy) that are covered under NHI are provided only in ambulatory clinics, which do not offer inpatient care. In addition, only licensed TCM physicians are qualified for reimbursement. The insurance benefits of TCM in Taiwan include Chinese herbal remedies, acupuncture and manipulative therapies. Any other treatment such as mediation, Qi management, dietary therapy (avoidance and supplementation), proprietary Chinese medicine, adulterated and pseudo-Chinese medicine (Western medicine with a proprietary Chinese nomenclature) were not reimbursed. In this study, two cohorts, each of which included one million patients who were randomly sampled from the beneficiaries of the NHI program in 2005 or 2010, were chosen for analysis. The sampled data had been demonstrated to represent all NHI beneficiaries. The distributions of age, sex and payroll level among the insured showed no significant differences between these two cohorts and the entire NHIRD.

Download English Version:

<https://daneshyari.com/en/article/5865623>

Download Persian Version:

<https://daneshyari.com/article/5865623>

[Daneshyari.com](https://daneshyari.com)