



Use Frequency of Acupuncture in Taiwan: A Population-Based Study

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Introduction



- Acupuncture attracts more attention from medical society globally.
- To explore the epidemic distribution of acupuncture becomes a basic study in acupuncture research.



- In Taiwan, public health system provided nearly 99% coverage of nation-wide population for acupuncture treatments.

Taiwan

Population	22.9 million
Land area	35,801km ² (13,975 sq mi)

Where is Taiwan





Social Insurance in Taiwan

- 1950 Labor Insurance (40.1%)
- 1958 Government Employees' Insurance (8.5%)
- 1985 Farmers' Insurance (8.2%)
- 1990 Low-income Household Insurance (0.6%)
- 1995 National Health Insurance (99%)

*() indicates % of total population.

Source: Bureau of National Health Insurance, Taiwan



Benefit Package

- Inpatient care
- Outpatient care
- Laboratory tests
- Prescription drugs and certain OTC drugs
- Dental services (orthodontics, prothodontics excluded)
- **Traditional Chinese medicine**
- Day care for the mentally ill
- Home nursing care



- Thus, the National Health Insurance Research Database (NHIRD) is an ideal resource for the study of health related issues.



Objective

- The objective of this study was to investigate the demographics and patterns of acupuncture use according to the National Health Insurance Research Database in Taiwan.



Methodology



- The National Health Insurance Research Database in 2005 was selected as the source of claim database.



We analyzed

- ✓ The use frequencies of acupuncture in TCM.
- ✓ The characteristics of the patients who received acupuncture alone and combined usage with herbal remedies/ manipulative therapies.



- The disease categories that were treated by acupuncture in Taiwan were also explored.
- Microsoft SQL 2003 & Excel 2003 were used to carry out the study.



Results

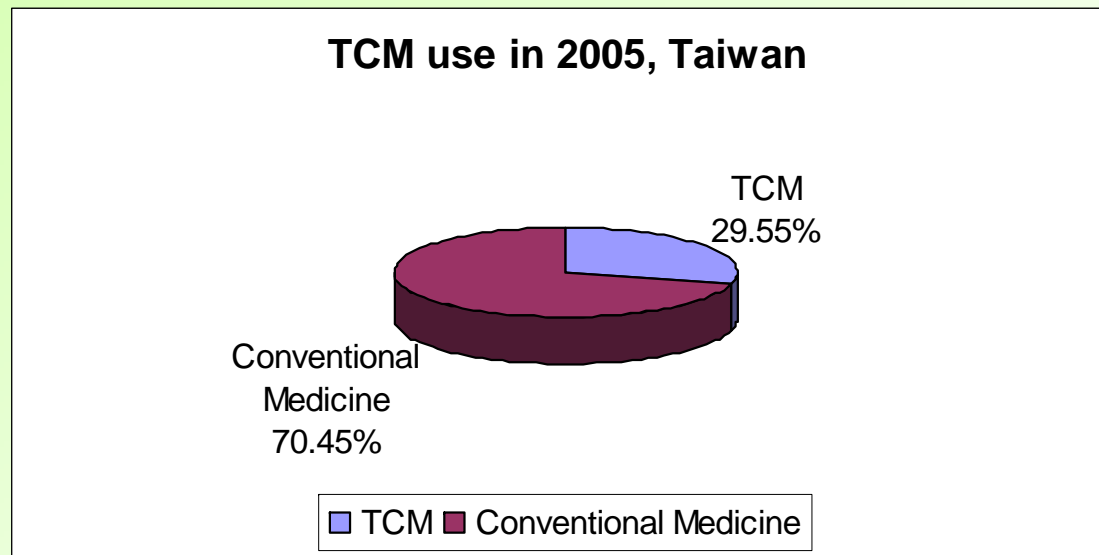


Variables	Total No.	%
Gender		
Male	6,317,931	39.61%
Female	9,630,991	60.39%
Age (year)		
0-9	8,976	0.60%
10-19	110,269	7.42%
20-29	301,684	20.30%
30-39	286,430	19.27%
40-49	325,919	21.93%
50-59	233,074	15.68%
60-69	122,305	8.23%
70-79	78,103	5.25%
80-89	18,725	1.26%
90-99	891	0.06%
100-104	9	0.0006%

Table 1 Descriptive analysis of Acupuncture Patients in 2005, Taiwan



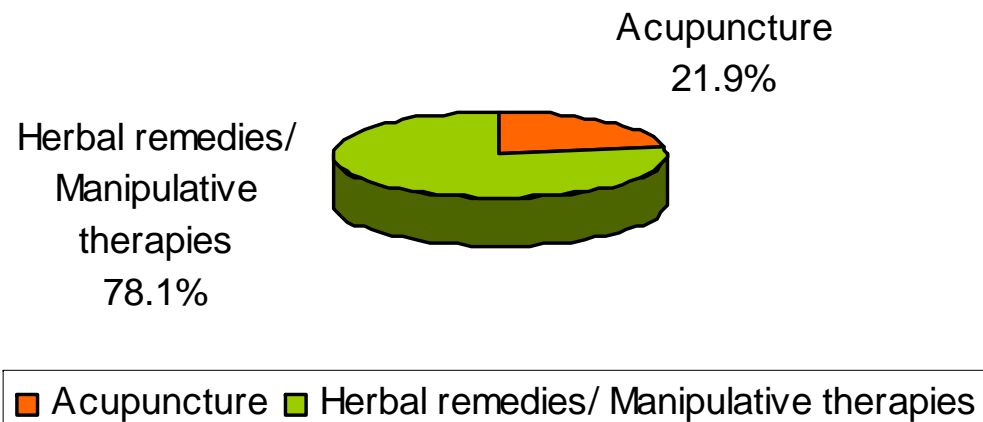
- 6,594,612 (29.55%) patients among the 22,314,647 beneficiaries of the National Health Insurance had used TCM during 2005 in Taiwan.





- 1,442,615 (21.9%) patients received acupuncture among TCM users.

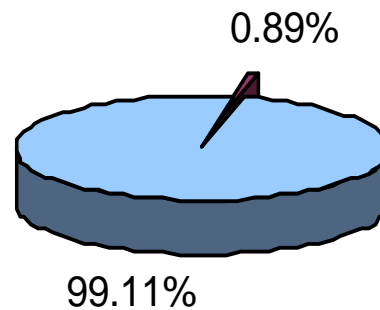
Acupuncture use in TCM, Taiwan 2005



Acupuncture/ Combined with other therapies in Taiwan, 2005



Acupuncture/ Combined with other TCM therapies in Taiwan, 2005



■ Acupuncture alone ■ Combined with other TCM therapies



Major disease category	ICD-9-CM code	Number of visits	Percentage(%)
Myalgia and Myositis, unspecified	729.1	313,386	8.26%
Lumbago	724.2	287,480	7.58%
Sprains and strains of lumbar	847.2	176,545	4.65%
Sprains and strains of unspecified site of shoulder and upper arm	840.9	138,215	3.64%
Sprains and strains of neck	847.0	123,860	3.26%
Backache, unspecified	724.5	106,505	2.81%
Sprains and strains of ankle, other	845.09	99,105	2.61%
Sciatica	724.3	92,775	2.45%
Cervicalgia	723.1	90,574	2.39%
Pain in joint, multiple sites	719.49	85,798	2.26%

Table 2 The top ten major diseases for acupuncture use



Discussion



- TCM had been reimbursed by NHI in Taiwan since 1995.
- The NHIRD almost covered 99% nationwide population, it could provide more representative analysis for TCM use in Taiwan.



- Acupuncture usage was found to be significantly more common among people aged 40-49 years, followed by 20-29 years, 30-39 years.
- Chen F.P. *et al* reported that the peak of age distribution was at around the 40s, followed by the 30s and 50s according to the NHIRD of acupuncture outpatient reimbursement claims from 1996 to 2002.
- Therefore the middle-age people were the most common population in acupuncture use.

- Chen F.P., Kung Y.Y., Chen T.J., Hwang S.J.: *Demographics and patterns of acupuncture use in the Chinese population: the Taiwan experience. J Altern Complement Med.* 2006 May;12(4):379-87.



- The results showed that 29.55% patients had used TCM during 2005 in Taiwan. Compared to previous study, the TCM users were increasing after 1996.

–Chen, F.P. et al: Use frequency of traditional medicine in Taiwan.
BMC Health Services Research 2007; 7: 26.



- In recent years, TCM usage had a increasing trend in western society. And acupuncture attracted most attention.
- Our results revealed that 21.9% patients received acupuncture among TCM users.
- In other words, acupuncture was not the most common TCM modality in Taiwan.





- In previous study, it reported that Chinese herbal remedies(85.9%) were the most common TCM modality in Taiwan, followed by acupuncture(11%) and traumatology manipulative therapies(3.1%).
- It could be related to the patients' complaints for TCM and most TCM doctors' specialty was in treating internal organ problems with Chinese herbal medicine.

–Chen, F.P. et al: Use frequency of traditional medicine in Taiwan.
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- And acupuncture usage combined with other TCM therapies(99.11%), including herbal remedies and manipulative therapies, was much more common than acupuncture usage alone(0.89%).
- These results could be related to the higher payment for combined TCM therapies than acupuncture use alone.



- The top five major diseases for acupuncture use were myalgia and myositis, lumbago, sprains and strains of lumbar, sprains and strains of unspecified site of shoulder and upper arm, followed by sprains and strains of neck.
- Acupuncture has been used in many fields besides the disorders of musculoskeletal system, such as insomnia, nausea/ vomiting, dysmenorrhea etc. And they showed the evidence of effect.



- However, the major disease category for acupuncture use was still the disorder of the musculoskeletal system in Taiwan. The results were in line with previous research.
- Based on published evidence, acupuncture is most likely to benefit patients with low back pain, neck pain, chronic idiopathic or tension headache, migraine, and knee osteoarthritis. Most common use category is also musculoskeletal system.

-Kelly RB.: Acupuncture for pain. Am Fam Physician. 2009 Sep 1;80(5):481-4.



Conclusions

- Acupuncture was not the most common modality of TCM used in Taiwan.
- The disorder of the musculoskeletal system was the major disease category for acupuncture use.
- The information in this study can provide the future consideration of acupuncture research and TCM health policy.

Thank You!



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