

Impact of A Comprehensive Traditional Chinese Medicine Day Care Clinical Service on Healthcare Quality Improvement and Outcome for Children with Asthma

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Objectives

Asthma, a chronic inflammatory condition of the airways, is one of the most common chronic disorders in childhood. Over the past several decades, the number of individuals with asthma has increased dramatically around the world. Childhood asthma not only causes chronic illness in the patients themselves but also distress of their families. Traditional Chinese Medicine (TCM), as an alternative medical system, is a unique system of personalized diagnosis and treatments including herbal medicines, acupuncture and manipulative therapy. Several recent studies reported that TCM therapies are safe and could improve asthmatic symptoms and pulmonary function. In order to promote the healthcare quality, a comprehensive patient-centered TCM day care clinic was implemented in Chang Gung Memorial Hospital for pediatric asthma patients. This integrated TCM healthcare service provided an interdisciplinary team of TCM- and western medical-trained physicians, nurses, pharmacists and case managers, all working closely with patients and families. The aim of this study is to evaluate the impact of this pediatric asthma TCM day care clinic on healthcare quality improvement and outcome of pediatric asthma patients.

Methods

Children who were under 15 years old with controlled or partly controlled asthma were enrolled to the pediatric asthma TCM day care clinics for further

treatment. A series of diagnosis and treatments, including TCM four examinations (inspection, listening and smelling, inquiring and palpation), pattern identification, inhalation therapy, five notes music therapy, massage manipulation, herbal paste therapy, acupuncture and oral herbal formula, were provided in this special clinic. To ensure patient-centered healthcare, personalized TCM pediatric asthma healthcare guidance was provided for each patient and family in the context of full information with adjustment to individual TCM diagnosis and lifestyle. After a course of asthma care for three months, the outcome of the day care clinics was evaluated by the asthma control test (ACT); the life quality of the caregivers was evaluated by the short form 36 health survey questionnaire (SF-36).

Results

Patients visited the pediatric asthma TCM day care clinics in Chang Gung Memorial Hospital, Taiwan in 2011 to 2012 were evaluated. There were totally 110 patients, 78 boys and 32 girls, enrolled to the clinic for further treatment. 51 (46.36%) of them finished the treatment course by the end of 2012. Most patients and family dropped out of the care. The mean ACT scores before treatment were 19.22 ± 2.56 . After TCM treatment, the mean ACT score increased to 22.57 ± 4.10 . There was significant improvement of these children's clinical conditions ($p < 0.001$). As for the caregivers' quality of life, a significant decrease of bodily pain ($p = 0.022$) was noted in the SF-36 survey. The scores of physical functioning, role-physical, general health, role-emotional and mental health slightly improved after treatment, although the difference didn't reach statistical significance.

Conclusion

Our study revealed this interdisciplinary teamwork not only improved the clinical symptoms of pediatric asthma patients but also the life quality of their caregivers. This comprehensive TCM day care clinical service has demonstrated a positive relationship between the joint teamwork and desired outcomes, including better health status, family- and patient-centeredness and healthcare quality.