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Use of complementary and alternative medicine in healthy children and children with chronic medical conditions in Germany

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Summary
Objectives: Use of complementary and alternative medicine (CAM) in children is common and probably increasing. However little is known about differences between healthy and chronically ill children with a focus on prevalence, reasons for use/non-use, costs, adverse effects and socio-demographic factors.
Design: A questionnaire-based survey with 500 participants visiting the outpatient clinic of the University Children's Hospital Homburg, Germany was conducted over a 4-week period in 2004. Recruitment was stopped when 500 questionnaires were handed out in total.
Results: Of the 405 (81%) respondents (242 with chronic conditions, 163 healthy children incidentally visiting the hospital for minor ailments) 229 (57%) reported lifetime CAM use (59% with chronic conditions versus 53% healthy children). Among CAM users the most prevalent therapies were homeopathy (25%), herbal remedies (8%), anthroposophic medicine (7%), vitamin preparations (6%) and acupuncture (5%). The main reasons for use were to strengthen the immune system, physical stabilisation and to increase healing chances/maintain health. Socio-demographic factors associated with CAM use were tertiary education (mother: $p = 0.017$; father: $p > 0.001$), higher family income ($p = 0.001$) and being Protestant ($p = 0.01$). Expectations towards CAM were high and most parents would recommend certain CAM (94%). 79% of the users informed a physician about CAM use. Side effects were rarely reported (4%), minor and self-limiting.

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Conclusions: Clinical care and the physician-patient relation would benefit from an enhanced understanding of CAM and a greater candidness towards the parental needs. The safety and efficacy especially of CAM with high prevalence rates should be determined in rigorous basic and clinical researches.

Introduction

Background

An increasing and generally high prevalence of complementary and alternative medicine (CAM) use has been documented in industrialised countries in children and adolescents with chronic illnesses.[1,2] Nevertheless determination of CAM use in pediatric populations is impeded by differences in definitions of CAM, methodology of the different studies, differences in the sociocultural background of the participants and small sample sizes of the investigated populations.[3–5]

Definition

CAM refers to a broad range of healing philosophies, approaches and therapies that exist largely outside the institutions where conventional medicine is taught and provided. There is a considerable uncertainty about what exactly constitutes CAM and what types of treatment should be summarized under this term. The Cochrane Collaboration defines CAM as ''a broad domain of healing resources that encompasses all health systems, modalities, practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period''.[6] CAM is defined by the National Center of Complementary and Alternative Medicine (NCCAM) as ''a group of diverse medical and health care systems, practices and products that are presently not considered to be part of conventional medicine''.[6]

Prevalence studies

While there are compelling data concerning an increasing CAM use in adults,[7] the use of CAM by children not only is less well studied, but also appears to have a considerable prevalence.[1,3,8] CAM use by hospitalised children as well as in outpatient settings ranges from 1.8% to 84%.[5,8–10] CAM use prevalence rates are best studied in pediatric oncology patients varying from 8.7% to 84%.[10,11] A recent trial showed prevalence rates between 36% in general pediatrics and 61.9% in children with epilepsy.[12]

Methodological limitations of published studies

Most studies are neither population-based nor at least almost representative (e.g. all children addressing a full-service hospital) but focus on populations with specific diseases like cancer.[10,11] To our best knowledge there are only 3 studies comparing prevalence rates of CAM use in general pediatrics and children with chronic diseases. One study revealed a three times higher rate of CAM use in children with chronic conditions[4] while another trial reported the highest user rate in the group of healthy children.[13] With an overall low falling number of those both trials the informative value is limited. The third trial included 281 respondents with highest CAM user rates among children with epilepsy, cancer, asthma and sickle cell disease.[12]

Aims

To assess the prevalence and types of CAM therapies used as well as reasons for and against CAM utilisation in pediatric patients with different conditions. Moreover, we were interested in socio-demographic factors having influence on CAM use, costs, perceived usefulness of the applied CAM, side effects and whether CAM use is discussed with physicians.

Methods

The survey was done in accordance with the institutional review board of the Saarland University and the declaration of Helsinki. We conducted a questionnaire-based survey to examine the use of CAM in children and adolescents in a tertiary university hospital in Germany with approximately 10,000 outpatients and 6000 inpatients per year. The survey was done during October 2004. Patients were recruited in all specialised outpatient clinics of the University Children's Hospital Homburg, Germany. ''Healthy'' children (no underlying chronic disease) were recruited during admission for incidental injuries or minor diseases (e.g. common cold). We explicitly asked for any chronic disease and/or any permanent medication. If so, patients were allocated to the chronic disease group. The questionnaire was based on the questionnaire developed by Längler et al. for their population-based survey on CAM use by pediatric cancer patients in Germany.[14] It consisted of 50 items evaluating the following factors: lifetime prevalence for CAM use, reasons for/against use, expectations towards CAM, financial expenditure including percentage of covering by insurance, source of recommendation, percentage of parents informing their physician about CAM utilisation, applied CAM (a list of 69 CAM was provided together with the possibility of adding further CAM), observed adverse effects, perception of helpfulness, percentage of recommendation of CAM, sociodemographic aspects of users and non-users. For this questionnaire we decided to exclude spiritual practices, prayer, exercise and nutritional changes because in Germany those are considered common practice and would have resulted in very high CAM user rates. Children addressing either the emergency department or the outpatient clinics were eligible to participate. The only exclusion