

Five adverse events of NT, of which 2 were evaluated as being NT-related, were assessed by the physician at discharge from the hospital: increased pain, fatigue, and unexpected exuberant emotional reactions. Nine patients perceived initial pain aggravation, 3 reported mild vertigo, 5 noticed gastrointestinal symptoms, 5 had mild muscle pain, and 5 had temporarily difficulties in swallowing. Further observations included enhanced transpiration, feeling of warmth, emotional agitation, better sleep quality, more energy and easiness.

**Conclusion:** Results of the study suggest that NT might considerably reduce various patients' symptoms. Potential side effects should still be closely monitored and the informed consent discussion should also include rare side effects.

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### **Integrative care for breast cancer patients – experience of a German ambulatory service**

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**Purpose:** Since several years, there is a worldwide increasing demand for complementary and alternative medicine (CAM) options in oncologic care, especially for the alleviation of severe side effects of conventional treatment. In 2010, we initiated the concept of integrative oncology for breast cancer at our institutions in Germany.

The aims of the current investigation were 1) to survey the current experiences and needs perceived by our patients, and 2) to evaluate the effectiveness of our integrative approaches comprising acupuncture, naturopathic methods (cupping, mistletoe), lifestyle modification (diet, exercise, relaxation), and various mind-body-medicine techniques (mindfulness, yoga).

**Methods:** Standardized questionnaires regarding previous experience with CAM methods, quality of life (EORTC QLC-C30 and EORTC QLC-BR23 of the European Organization for Research and Treatment of Cancer), psychological factors (Hamilton anxiety and depression scale, HADS), fatigue (Brief Fatigue Inventory, BFI), and lifestyle habits are filled out by the patients at the beginning of CAM treatment. Follow-up questionnaires are sent to the patients each 6 and 12 months after initial evaluation.

**Results:** Preliminary results of 150 patients indicate that most of the patients present with side effects from chemotherapy and/or endocrine treatment including gastrointestinal symptoms, moderate fatigue (BFI score = 5.4) during chemotherapy, sleep disturbances, and pain. The majority of patients (82%) were within normal limits regarding depression, 10% showed mild and 8% severe symptoms. Anxiety was more pronounced with around 20% having mild or severe symptoms. Previous experience with CAM methods reported ten (for Traditional Chinese Medicine) to 30% (for homeopathy).

**Conclusion:** Follow-up results will be presented at the conference. In our opinion, integrative care is crucial to the field of oncology and to establishing state-of-the-art breast cancer care. The potential of integrative oncology lies in preventing illness and enhancing self-healing abilities, as well as in supporting mainstream treatment in order to speed up recovery processes, and minimize side effects.

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### **Developing Policy for Integrating Biomedicine and Traditional Chinese Medical Practice Using Focus Groups and the Delphi Technique**

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**Purpose:** In Hong Kong, statutory regulation for traditional Chinese medicine (TCM) practitioners has been implemented in the past decade. Increasing use of TCM on top of biomedicine (BM) services by the population has been followed; but corresponding policy development to integrate their practices has not yet been discussed.

**Methods:** Using focus group methodology, we explore policy ideas for integration by collating views from frontline BM (n=50) and TCM clinicians (n=50). Qualitative data were analyzed under the guidance of structuration model of collaboration, a theoretical model for understanding interprofessional collaboration. From focus group findings we generated 28 possible approaches, and subsequently their acceptability was assessed by a two round Delphi survey amongst BM and TCM policy stakeholders (n=12).

**Results:** Consensus was reached only on 13 statements. Stakeholders agreed that clinicians from both paradigms should share common goals of providing patient-centered care, promoting the development of protocols for shared care and information exchange, as well as strengthening interprofessional connectivity and leadership for integration. On the other hand, attitudes amongst policy stakeholders were split on the possibility of fostering trust and mutual learning, as well as on enhancing innovation and governmental support.

**Conclusions:** Future policy initiatives should focus on these controversial areas.

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### **Complementary and Alternative Medicine Education for Medical Profession: Systematic Review**

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**Purpose:** To help integrate traditional, complementary and alternative medicine (TCAM) into health systems, efforts are being made to educate biomedical doctors (BMD) and medical students on TCAM. We systematically evaluated the effect of TCAM education on BMD and medical students' attitude, knowledge, and behavior towards TCAM utilization and integration with biomedical medicine.

**Methods:** Evaluative studies were identified from four databases. Methodological quality was assessed using the Medical Education Research Study Quality Instrument (MERSQI). Study outcomes were classified using Kirkpatrick's hierarchy.

**Results:** 3122 studies were identified and 12 studies of mediocre quality met inclusion criteria. Qualitative synthesis showed usage of diverse approaches including didactic, experiential learning, varying length, teacher background and intensity of exposure. More positive attitudes and improved knowledge after intervention were noted especially when teachers were BM trained. However, few studies assessed behavior change objectively. Finally, longer-term objective outcomes such as impact on patient care were not assessed.

**Conclusions:** Lack of use of objective and reliable instruments preclude firm conclusion on the effect of TCAM education on study participants. However, positive changes, although mostly subjectively reported, were noted in most studies. Future evaluation should use validated or objective outcome assessments, and the value of using dual trained instructors.

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### **Long-term effectiveness of yoga for chronic neck pain**

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**Purpose:** A recent randomized controlled trial has revealed short-term effects of yoga for chronic neck pain. The aim of this long-term follow-up was to assess the effects of a 9-week yoga intervention for chronic neck pain 12 months after completion.

**Methods:** For this 12-month follow-up, data from two groups of a randomized controlled trial were pooled. Patients with chronic non-specific neck pain were initially randomized to either an immediate 9-week yoga intervention or a wait-list control group that started the yoga intervention 10 weeks after inclusion. The final assessment took place 12 months after the end of the yoga intervention. Main outcome measure was neck pain intensity (100mm visual analog scale; VAS). Secondary

outcome measures included functional disability (Neck Disability Index), health-related quality of life (Short Form-36 questionnaire; SF-36), generic disability (days with restricted activities), and global improvement. To analyze the role of sustained yoga practice as a possible predictor of treatment success, linear forward stepwise regression analyses were conducted.

**Results:** Fifty-one patients (mean age 47.8 years; 82.4% female) were included. Of those, 36 patients (70.6%) completed the 12-month follow-up assessment. From baseline to 12-month follow-up, pain intensity improved from  $48.81 \pm 17.71$  to  $32.31 \pm 20.68$  ( $p < 0.001$ ). Twenty-three patients (63.9%) obtained a reduction in pain intensity from baseline of at least 30%. Neck-related disability decreased from  $25.26 \pm 9.02$  to  $19.49 \pm 11.52$  ( $p = 0.001$ ); and bodily pain in the SF-36 improved from  $49.37 \pm 12.40$  to  $59.26 \pm 17.57$  ( $p = 0.005$ ). Generic disability did not decrease significantly. Twenty-four patients (68.6%) rated their health as at least somewhat improved. Improvement in pain intensity ( $r^2 = 0.12$ ,  $p = 0.028$ ) and obtaining a reduction in pain intensity from baseline to 12-month follow-up of at least 30% ( $r^2 = 0.21$ ,  $p = 0.037$ ) was predicted by weekly minutes of yoga practice during the past 4 weeks. Improved neck-related disability ( $r^2 = 0.24$ ,  $p = 0.001$ ) and bodily pain ( $r^2 = 0.26$ ,  $p = 0.006$ ) were predicted by regular yoga practice during the past 12 months.

**Conclusions:** A 9-week yoga intervention induced statistically significant and clinically meaningful improvements of pain intensity and neck-related disability for at least 12 months after completion. Sustained yoga practice seems to be the most important predictor of long-term effectiveness of yoga in patients with chronic neck pain.

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### Characteristics of yoga users among internistic patients

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**Purpose:** Clinical research has shown effectiveness of yoga in a variety of internistic conditions. While predictors of yoga use have been investigated in the general population, characteristics of yoga users and barriers to yoga use among internistic patients are still widely unknown. Therefore, the aim of this analysis was to identify sociodemographic, clinical, and motivational characteristics of yoga users among internistic patients.

**Methods:** A cross-sectional analysis was conducted among all patients being referred to a Department for Internal and Integrative Medicine during a 3-year period. Patients were queried whether had they ever used yoga to cope with their disease and, if applicable, whether they had perceived yoga as helpful or harmful. Patient characteristics were assessed including sociodemographic characteristics, health behavior, diagnosis, general health status, mental health, satisfaction with health, and health locus of control. Associations of these characteristics with yoga use were tested using multiple logistic regression analysis. Odds ratios (OR) with 95% confidence intervals (CI) were calculated for significant associations.

**Results:** Of 2486 participants, 303 (12.19%) reported having used yoga to cope with their disease. Of those, 184 (60.73%) perceived yoga as helpful and 12 (3.96%) perceived yoga as harmful. Yoga users were more likely to be 50–64 years old (OR=1.45; 95%CI=1.05–2.01;  $P = 0.025$ ); female (OR=2.45; 95%CI=1.45–4.02;  $P < 0.001$ ); and college graduates (OR=1.61; 95%CI=1.14–2.27;  $P = 0.007$ ); and less likely to currently smoke (OR=0.61; 95%CI=0.39–0.96;  $P = 0.031$ ) compared to patients who never used yoga as a coping strategy. Manifest anxiety (OR=1.47; 95%CI=1.06–2.04;  $P = 0.020$ ); and high internal health locus of control (OR=1.92; 95%CI=1.38–2.67;  $P < 0.001$ ) were positively associated with yoga use, while high external-fatalistic health locus of control (OR=0.66; 95%CI=0.47–0.92;  $P = 0.014$ ) was negatively associated with yoga use.

**Conclusion:** More than 10% of an internistic integrative medicine patient population had used yoga as a coping strategy for their disease.

Yoga was commonly perceived as helpful. Yoga use was not associated with the patients' internistic diagnosis but with sociodemographic factors, mental health, and health locus of control.

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### Integration of evidence based Reflexology practice and pharmacological therapies in managing Diabetic Neuropathy and Nephropathy: Clinical trials

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**Purpose:** Studies were conducted to determine the role of reflexology in managing diabetic neuropathy and nephropathy that failed to be managed by pharmacology drugs alone. Reflexology therapy was applied with the hypothesis that stimulations at reflexology areas (RAs) on feet would bring homeostasis on the functional status of target body parts as detected by noting the physical features of the corresponding reflexology areas.

**Methodology:** A two arm randomized, age, gender matched, disease duration (2–15 years) clinical trial in diabetic neuropathy (N=56;  $n_1 = n_2 = 28$ ) and a single arm study (N=10) in diabetic nephropathy were conducted with the follow-up periods of 6 months including 1 month's reflexology training period. Both group patients administered ongoing drugs and active group subjects received reflexology therapy in addition, applied by patients' trained family members. Therapy compliance was monitored by observing the physical characteristics of skin surface pertaining to RAs, for example, skin colour, depression/swelling and tenderness. The quality of life; physiological parameters; and pain were assessed using the following instruments: neuroQOL, Modified Pittsburgh sleep quality index, Epworth sleepiness scale, Fatigue severity scale, Becks depression inventory; Viking quest (Viasys Health Care, Germany), vibrotherm (Diabetik Foot Care, India), pedography (Novel gmbh, Germany); and Visual Analogue Scale respectively. The levels of Tumor Growth Factor- $\beta 1$  (TGF- $\beta 1$ ) were estimated by Enzyme-Linked Immunosorbent Assay. Parametric and non-parametric statistical methods were applied to analyse data.

**Results:** Active group neuropathy patients exhibited 56% more pain-scores reduction and 4 fold improvement in neuroQOL scores compared with those of control ones ( $p < 0.001$ ). These patients were also found to be improved in nerve conduction velocity, vibration and thermal sensitivities with statistical significances. Reductions in post therapy quality of life scores in nephropathy patients were statistically significant with ( $p < 0.001$ ). TGF- $\beta 1$  levels reduced from  $1.02 \pm 0.38$  to  $0.62 \pm 0.30$  ( $p < 0.008$ ). Active patients of both trials were also managed with reduction in glycosylated haemoglobin.

**Conclusion:** Statistically significant reduction in TGF- $\beta 1$  indicated the possibility of reversing nephropathy. The outcome measures may conclude in the positive utility of reflexology therapy integrated with conventional medicine in managing diabetic neuropathy and nephropathy.

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### Management of knee osteoarthritis by reflexology therapy integrated with conventional medicine: A single arm pilot study

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**Aim:** The present work was launched to investigate the efficacy of reflexology in addition to conventional medicine in managing knee osteoarthritis (OA).

**Methods:** This single arm clinical study was conducted among 22 patients with male and female ratio of 2:9, age group of 45–72 years and disease course of 1–15 years. Patients were continued with ongoing conventional medicines and received reflexology therapy in addition with a study period of 3 months including 1 month's reflexology training