



Centre for Cross-disciplinary Evaluation Studies in Complementary and Alternative Medicine  
Center for tværvideenskabelige evalueringsstudier af komplementær og alternativ behandling

---

**Director of the centre:** Helle Johannessen, mag.scient. PhD, associate professor

([hjohannessen@health.sdu.dk](mailto:hjohannessen@health.sdu.dk))

**Secretary:** Marlene Dichmann Pedersen

([mdichmann@health.sdu.dk](mailto:mdichmann@health.sdu.dk))

**Postal address:**

CCESCAM, IST-HMS

J.B. Winsløvs Vej 9B, st. th.

DK-5000 Odense C

Tlf. 6550 4018 / 6550 3647

In 2005, the Knowledge- and Research Centre for Alternative Medicine (a centre financed by the Danish Ministry of Health) allotted 4.8 mio DKK (€ 646.000) for setting up a university-based centre for cross-disciplinary evaluation studies of complementary and alternative medicine (CCESCAM) in Denmark. Resources of similar size offered by the University of Aarhus and the University of Southern Denmark complement this grant. The centre includes researchers from these universities as well as the Aarhus School of Business. It operates in concert with the Health Council (an umbrella organisation of alternative medicine), and oncology departments at the university hospitals of Aarhus and Odense.

The research programme supported by these means will be carried out in the period November 2005 – December 2008.

Internationally the use of complementary and alternative medicine (CAM) is increasing in Europe and the USA (Vincent & Furnham 1996). In Denmark, large national representative surveys have revealed an increase in the use of CAM from 23,2% (10% within the last 12 months) in 1987 (Rasmussen et al 1988: 125) to 43,7% (20,6% in the last 12 months) in 2000 (Kjøller & Rasmussen 2002: 202).

Surveys show that people suffering from chronic illnesses such as pain in the muscular-skeleton system, pain in the head, allergic reactions and digestive problems (Launsø 1995: 18), chiefly use CAM. Danish as well as international studies further document the use of CAM as being particularly high among cancer patients (Ernst & Cassileth 1998, Damkier 2000). However, a recent inter-European study demonstrates international variation in its use among people with cancer (Molassiotis et al. 2005).

## **Efficacy of CAM**

CCESCAM research aims to reveal and analyse the efficacy of CAM in a broad perspective. The task seems relevant in consideration of the growing demand for evidence-based practice. Research quality on CAM has not been satisfactory, as most of it does not meet basic methodological demands. This leads to results, which lack credibility (Monckton et al. 1998: 58).

Many studies aimed at documenting the effects of CAM by objective measurements as well as patients' self-reported experiences of effect show a discrepancy. The discrepancy lies in patients reporting positive effects even though it has not been possible to register effects on the variables selected for objective measurement (Johannessen 1995: 59).

This paradox between the subjective and objective registration of effect forms the point of departure for the present research programme of CCESCAM. In a search for identification and documentation of any potential effect of CAM, we will employ several research traditions that can investigate subjective as well as objective aspects of effect, based on qualitative as well as quantitative methodology.

It is our impression that cross-disciplinary investigations – despite good intention – have often had difficulty in creating synergy and true co-operation. Part of the reason might be that it has proven difficult to establish a common methodological and conceptual framework for dialogue. An overall objective of CCESCAM is therefore to ease the development of a common cross-disciplinary consensus on ideas and methods for investigation. It is a declared ambition of the centre to develop models for cross-disciplinary efficacy research. The models would be applicable to many CAM techniques and interventions, as well as a broad spectre of health conditions spanning from prevention and health promotion across chronic illnesses to life-threatening diseases.

To promote synergy the centre will, in its initial research, focus on one specific health problem. Its hope is that this focus will provide experiences and develop methodologies that are applicable to other health conditions later. The primary health condition chosen for investigation is cancer. This is partly because of the extended use of CAM among persons with cancer, and partly because of the competences and experiences of the group of researchers attached to the centre at this moment.

## **CAM and Cancer**

An early Danish study concluded that 45 to 53% of Danish cancer patients use CAM as a supplement to the conventional treatment (Damkier 2000). A European survey based on a standardised questionnaire administered to 956 cancer patients in 14 countries, shows a use of CAM, on an average, by 35,9% of the patients. There is a spread from 14,8% to 73,1% at national levels (Molassiotis et al. 2005).

There seems to be a tendency for CAM users to be younger, better educated and with a higher income than non-users. The use of CAM seems to increase with the duration of the disease, and among patients in need of palliative care, more than half use CAM in some form (Yates et al. 1993; Correa-Velez, Clavarino, Barnett & Eastwood 2003).

There is a need for more knowledge on determinants for the choice and use of CAM, on whether the use of CAM influences the quality of life for cancer patients, on potential positive effects on symptoms and survival, and on which mechanisms (biological as well as psychological) that may mediate an effect of CAM.

### **Methodologies of CCESCAM**

As a preliminary working model, the centre distinguishes between three fundamental forms of effects. Each effect is closely connected with specific scientific and scholarly disciplines and traditions. In this, the centre follows the recommendations from a working group on CAM under the Danish Research Councils (Almind & Holbøll, 2002).

Clinical-biological effects: The immediate subject to investigate is potential clinical-biological effects. In CCESCAM, this will be explored at two levels: (a) a general documentary level. This includes registration of the use of CAM among patients at an oncology department as related to time of hospitalisation, relapse, curing, etc., and (b) in traditional controlled trials with the exploration of specific effects of specific interventions, i.e. acupuncture against pain and as palliative intervention.

Psychosocial effects: Another relevant subject to investigate is potential psychological, cultural and social effects of CAM. This will be explored partly through surveys based on validated questionnaires regarding quality of life, perceived social support, spirituality and general well-being related to the use of CAM. Further, partly through interviews and participant-observation on the significance of CAM for patients and practitioners' experiences and the creation of meaning concerning cancer. In addition, the significance of the larger sociocultural context in which treatments and the creation of meaning takes place will be examined.

Economic effects: The third subject to be investigated regards the social and economic consequences of CAM. In this context one project will focus on the delivery of CAM through a national survey covering all CAM-practitioners attached to two major umbrella organisations of CAM in Denmark. This survey will investigate the types of CAM offered, the patients served, economical aspects such as the price of treatment, etc. Further, methods for evaluating cost-effectiveness and the socio-economic relevance of CAM will be developed by inclusion of relevant subjective and objective parameters.

In total, the research of CCESCAM represents an approach based on a holistic bio-psycho-social model of health, disease and treatment (Engel 1977, 1980). To facilitate the co-operation between researchers from the various disciplines involved, one project aims to improve communication in the research team through IT-based tools for knowledge sharing and clarification of concepts. All involved parties will sign a contract of cooperation.

## References

- Almind, G., Holbøll, C. (eds) (2002). *Forskning i alternativ behandling. Debatindlæg* [Research on alternative medicine. A contribution to the debate]. Copenhagen, Research Council of the Health Sciences.
- Correa-Velez, I., Clavarino, A., Barnett, A. G., & Eastwood, H. (2003). Use of complementary and alternative medicine and quality of life: changes at the end of life. *Palliative Medicine*, 17, 695-703.
- Dankier A. (2000) *Kræftpatienter brug af alternativ behandling* [The use of alternative medicine among cancer patients]. PhD-thesis, University of Southern Denmark.
- Ernst, E. & Cassileth, B. R. (1998). The prevalence of complementary/alternative medicine in cancer - A systematic review. *Cancer*, 83, 777-782.
- Johannessen, H. (1995). *Alternativ behandling i Europa – udbredelse, brug og effekt. Et litteraturstudie* [Alternative medicine in Europe – prevalence, use and effect. A literature study]. Copenhagen, The National Board of Health's committee regarding alternative medicine.
- Kjøller M, Rasmussen NK (red). (2002). *Sundhed og sygelighed i Danmark 2000 & udviklingen siden 1987* [Health and Disease in Denmark 2000]. Copenhagen. National Institute of Public Health.
- Launsø, L. (1995). *Brug og bruger-erfarede virkninger af alternativ behandling. En sammenfatning* [Use and user-experienced effect of alternative medicine]. Copenhagen, The National Board of Health's committee regarding alternative medicine.
- Molassiotis, A. et al. (2005). Use of complementary and alternative medicine in cancer patients: a European survey. *Annals of Oncology*, 16, 655-663.
- Monckton, J. et al. (1998). *COST Action B4 – Unconventional Medicine. Final report of the management committee 1993-98*. EUR 18420. Bruxelles, Europakommissionen.
- Rasmussen, NK et al. (1988). *Sundhed og sygelighed i Danmark 1987* [Health and Disease in Denmark 1987]. Copenhagen, National Institute of Clinical Epidemiology.
- Vincent C, Furnham A. (1996). Why do patients turn to complementary medicine? An empirical study, *British Journal of Clinical Psychology* 35: 37-48.
- Yates, P. M., Beadle, G., Clavarino, A., Najman, J. M., Thomson, D., Williams, G. et al. (1993). Patients with Terminal Cancer Who Use Alternative Therapies - Their Beliefs and Practices. *Sociology of Health & Illness*, 15, 199-216.

## 2.1 Aarhus-team, under supervision of Robert Zachariae

### 2.1.1 CAM and Quality of Life (QoL)

Project 2.1.1. is conducted by Christina Gundgaard Pedersen as a PhD-project under the supervision of Robert Zachariae and Anders Bonde Jensen. The Faculty of Social Sciences, University of Aarhus, has approved the project.

## **Background**

Quality of Life (QoL) is considered a multidimensional construct comprising physical, social, and emotional well-being. Recent research has further indicated a role of spiritual well-being, independent of emotional well-being, for perceived QoL of cancer patients (Brady et al 1999; Cotton et al 1999; Gioiella et al 1998; WHOQOL Group 1995). The existential and/or spiritual dimension has been described as encompassing “personal views and behaviours that express a need for a connection to something greater than the self, and a sense of meaning and purpose in life”(Fisch et al 2003). Studies have suggested that QoL parameters may be influenced by cancer patients’ use of CAM (Rønnov et al 2004; Correa-Velez et al 2003). Therefore, it is considered relevant to investigate the potential role of CAM use for cancer patients’ perceived QoL.

## **Aim**

The following questions will be investigated: 1) Does cancer patients’ use of CAM influence perceived QoL, including physical symptoms, psychological symptoms, and psychosocial and spiritual well-being? 2) Psychological, social, and spiritual characteristics of cancer patients using CAM compared with non-users. 3) Possible changes in the role of CAM for QoL parameters during disease, and 4) Prognosis of cancer patients using CAM compared with non-users.

These research questions will be explored in study 2.1.1.1 and 2.1.1.2.

### **2.1.1.1 Study 1: The relationship between use of CAM and course of disease, and QoL among consecutively recruited lung-, uterus-, cervical-, and ovary cancer patients**

#### **Participants**

750 patients diagnosed with lung-, uterus-, cervical-, and ovary cancer at Aarhus University Hospital will be included in the study. The number of participants is based on the intention to estimate a potential association between 5-year survival and use of CAM. Based on the annual incidence rate in Aarhus County, recruiting patients is expected to continue for 2 years (Storm & Engholm 2002; Storm & Engholm 2002). Including a follow-up 4 years after inclusion of the first patient and an expected use of CAM among 50% of the participants, we will be able to detect a relative risk (RR) of 1.26 for non-users compared with the reference group with a statistical power of 0.81 and a two-tailed level of significance at 0.05. An RR of more than 1.25 is estimated to be clinically relevant.

#### **Procedure**

Central person registration (CPR) numbers and addresses for patients with lung-, uterus-, cervical-, and ovary cancer will be obtained from relevant clinical departments at Aarhus University Hospital. During hospitalisation, the patients will receive in advance oral information and a brief folder describing the project. Subsequently, the patients will receive written information about the study, an informed consent form, and a baseline questionnaire to be returned in a self-addressed envelope to

the Psychooncology Research Unit at Aarhus University Hospital. The patients will be told that participation is voluntary, and that further information may be obtained by phone at any time. If the patient has not responded within 14 days, the first and only reminder will be sent. Those who respond will then receive follow-up questionnaires after 3, 6, 9, and 12 months. Completed questionnaires will be scanned and digitalized into an electronic database.

### **Measurement**

Questionnaires, including validated Danish translations of relevant questionnaires, will be used to measure the dependent and independent variables in the study. These include: 1) Questions concerning CAM-use, 2) EORTC QLQ-30 for measuring QoL (Klee et al 1997), and 3) FACIT-sp for measuring spiritual well-being (Peterman et al 2002). 4) In addition, faith, expected effects of CAM, and coping strategies will be measured with relevant control variables, including demographic data. Health- and socioeconomic status will be obtained through relevant registries.

### **Statistical analyses**

Possible associations between the use of CAM and measures of QoL and symptoms will be investigated using relevant statistical procedures. These procedures include analysis of variance, multiple regression, and logistic regression. The statistical analyses will control for disease status and demographic factors.

### **Collaborators**

Department of Oncological Sciences, Mount Sinai School of Medicine (MSSM), New York, U.S.A, will collaborate in this study. The department will assist with research placement, methodology development, and tools of measurement aiming to increase the comparability with existing international studies within the area. MSSM will further provide support for the preparation and interpretation of data analysis and take part in preparing scientific articles based on the results of the study. The collaboration's aim is to clarify any comparability between Danish cancer patients' use of CAM, its potential influence on QoL parameters, and the findings for other countries.

### **2.1.1.2 Study 2: CAM, faith, and psychosocial well-being among 3.500 women treated for breast cancer.**

#### **Participants**

As part of an on-going nationwide prospective study of psychosocial factors and the survival of women with primary, loco-regional breast cancer, 3.500 participants have been included. 2.500 participants have responded to the follow-up questionnaire given after 12 months. At the baseline, the inclusion rate is 69% and present data indicates that 93% of the women included have responded to the follow-up questionnaire. The Danish Cancer Society financed data collection.

## **Procedure**

The study coordination takes place at the Psychooncology Research Unit, Aarhus University Hospital and is conducted in cooperation with the Danish Breast Cancer Cooperative Group (DBCG). Potential participants have received written and oral information about the study in connection with their treatment at the individual surgery departments. Names and addresses of the patients having undergone surgical treatment for loco-regional invasive breast cancer have been obtained through the CPR-office. The patients have received study information, an informed consent form, and a questionnaire package. Only one reminder has been mailed to patients not responding after 14 days. Questionnaires were returned in a prepaid envelope addressed to the Psychooncology Research Unit, Aarhus University Hospital. Thus, participants have completed questionnaires approximately 3 months after the diagnosis and 12 months after completion of the baseline questionnaire.

## **Measurement**

The use of CAM has been recorded at both baseline and follow-up. In the follow-up questionnaire, participants have given information about their faith, social activities associated with their faith, and to what extent they believe their faith influences their QoL and the illness itself. Further, the study includes several trait measures, psychological symptoms, psychological well-being, physical function, physical activity, sleep quality, and social support. In addition, the study includes measures of relevant biological parameters, e.g. tumour size, oestrogen receptor status, lymph node involvement and so forth.

## **Data analysis and perspective**

Data obtained from this nationwide study provides the opportunity to investigate: 1) If CAM use is associated with psychological and social well-being; 2) if women who are treated for breast cancer using CAM differ psychosocially and demographically from non-users; 3) if there is a relationship between use of CAM, faith, and psychosocial well-being; and 4) if the prognosis for CAM users differs from that of non-users, when controlling for relevant biological, health-related, and socio-demographic factors. The study enables an estimation of associations between CAM, faith, and psychosocial well-being with considerable statistical confidence, as well as estimation of the association with survival. Relevant statistical procedures, including multiple regression and survival analyses will be used when analysing the data.

## **Cooperation with CAM-practitioners**

Leila Eriksen and Annemarie Goldschmidt will supervise and participate in developing the studies.

## **Synergy with other projects**

To promote interdisciplinary comparability, the patient population in study 2.1.1 has been defined in collaboration with study 2.2.1, a study conducted at Odense University Hospital. Simultaneously, the study will be in a continuous dialogue with the health-economy projects, which aim to develop

experimental models for health-economical impact analyses based on the research findings. Further, the methodological and procedural experiences gained from study 2.1.2 will contribute to developing the remaining projects, particularly the quantitative questionnaire-based studies. Data from the project will contribute to knowledge on CAM use among female cancer patients and may provide further inspiration for particular areas of focus for qualitative studies. The focus of study 2.1.1 and 2.1.2 on CAM use and QoL parameters enables interdisciplinary comparability with the qualitative approaches of study 2.2.2 and 2.2.3 – the latter relating to a cultural perspective.

## **2.1.2 CAM and mechanisms – experimentally induced myalgia**

Project 2.1.2 is a post-doc-study conducted by Lene Vase under the supervision of Robert Zachariae and Anders Bonde Jensen.

### **Background**

At least three factors are believed to contribute to the total effect of any given treatment: Active factors, placebo factors and spontaneous recovery (Fields & Price 1997). Active factors are typically defined as the mechanisms through which the treatment is assumed to work. The phenomenon of placebo is still relatively unexplored, and there exists no consensus on how to define this phenomenon. In general, however, placebo factors are viewed as factors related to the patient's perception of the treatment (Vase et al 2002). Spontaneous recovery refers to the circumstance that many medical conditions vary in intensity over time. Thus, many patients experience symptom recovery even though they are not receiving any treatment (Fields & Price 1997). To investigate the proportion of the CAM treatment effect that are attributable to active treatment factors and placebo factors respectively, it is necessary to study the separate contribution of active factors, placebo factors, and spontaneous recovery. This can be done using three research groups: 1) a group receiving active treatment; 2) a group receiving placebo treatment; and 3) a control group receiving no treatment. Presently, only few studies have used this model of design when studying CAM. One possible explanation could be that for CAM, acceptable placebo control is often difficult to establish (Guess et al 2002). Furthermore, many researchers have not specifically investigated the placebo effect in relation to CAM, and untreated control groups have not been included.

### **Aim**

It is the aim of this project to test CAM based on the model mentioned above with respect to a particular treatment: acupuncture. There are several reasons for testing the model in relation to acupuncture. Firstly, many patients use acupuncture (Kaptchuck 2002). Secondly, acupuncture has been tested in several studies, suggesting active effects (Kaptchuck 2005; Mayer 2000). Thirdly, so-called placebo acupuncture needles have recently been developed. The needle is mounted in a shell

so the needle may be inserted into the skin and withdrawn immediately after with neither the patient nor the practitioner being aware of it. Consequently, it is possible to ensure an adequate double-blinded placebo control. For investigating the effect of acupuncture on experimentally induced myalgia, the following will be included in the study: the conditions of active treatment, placebo treatment, and a control group not receiving treatment. The active treatment group will receive active acupuncture treatment, and the placebo treatment group will receive treatment with placebo acupuncture needles. Furthermore, active and placebo treatment will be studied in combination with active suggestion and placebo suggestion. When testing active suggestion the practitioner tells the patient: "You are now receiving efficient acupuncture treatment which has relieved pain significantly for some patients". When testing placebo suggestion the information given will be: "You are now receiving inefficient acupuncture treatment as a control condition". In the untreated control condition the practitioner states: "You are not receiving any treatment, because I would like to see how your symptoms normally progress over time". Both the practitioner and the participant will be blinded as to whether active or placebo acupuncture is given.

### **Design**

Seventeen healthy participants will be asked to complete questionnaires measuring traits suggested to influence responses to treatments and suggestions, including Locus of Control, Absorption, and Social Desirability. Glutamate will then be injected into the chest region creating a myalgia condition for approx. 20 minutes. All participants will be randomized according to the following conditions: a) active acupuncture + active suggestion; b) active acupuncture + placebo suggestion; c) placebo acupuncture + active suggestion; d) placebo acupuncture + placebo suggestion; and e) untreated control. Immediately before the glutamate injection, the participants will be asked to indicate on visual analogue scales (VAS) how anxious they are, to what extent they wish for pain relief, and their expected pain during the experiment. Experienced pain will be measured before, immediately after acupuncture treatment, and once every hour until 11.00 pm on the day of the experiment, using VAS. Based on previous experiments, the chosen number of participants will enable the detection of a significant placeboeffect compared to untreated control with a statistical power of 80% (Two-tailed alpha: 0.05).

### **Cooperation with CAM-practitioners**

Leila Eriksen and Annemarie Goldschmidt are consultants during the preparation of the project. Acupuncture practitioners meeting the demands made by the National Board of Health for registered alternative practitioners will perform treatment.

### **Synergy with other projects**

This project serves in conjunction with project 2.1.3. to explore placebo mechanisms and possible moderators of placebo responses. The results will, in conjunction with project 1.1. on the use and

perceived benefit of CAM among cancer patients, explore possible moderators and mediating mechanisms in perceived effects of CAM.

### **2.1.3 The effect of acupuncture on palliative care**

Project 2.1.3 is conducted by Anders Bonde Jensen, Christina G. Pedersen, and Robert Zachariae

#### **Aim**

Patients with disseminated cancer often experience several severe symptoms, including nausea, pain, and dyspnea (Potter et al 2003), that have been found difficult to treat with conventional medical treatments (Walsh et al 2002). Previous studies indicate that more than half of all terminally ill cancer patients use some form of CAM (Vickers & Cassileth 2001), and the aim is to determine to what extent one form of CAM, acupuncture, may be incorporated into the palliative care of terminal patients. The aim of this study is therefore to investigate: 1) the ability of acupuncture to alleviate the pain, nausea, and dyspnea of patients with disseminated cancer where conventional medical treatment is not sufficiently effective or cannot be practiced due to unacceptable side effects; and 2) possible psychological traits characterizing patients who benefit from acupunctural treatment.

#### **Participants**

Cancer patients experiencing symptoms such as pain, nausea, or dyspnea that rank **two** or more, and have a performance status of less than **four** will be asked to participate in the study. Patient recruitment will be through the Oncology Department D, Aarhus University Hospital, or the Palliative Team, Aarhus County. Forming a clear impression about an expected effect of acupuncture has not been possible, as no published data was available from randomized trials. However, if, as based on one study (Alimi et al 2003), an effect size of 0.84 (Cohens d) is expected, a statistical power of 0.80 and level of significance of 0.05 (two-tailed significance) can be expected with 24 patients in the intervention and control group respectively. This is equivalent of a total of 48 patients included in the study.

#### **Design**

The study will be conducted as a randomized, controlled trial with a crossover design. Thus, one group will receive 6 acupuncture treatments during the first three weeks followed by three weeks without acupuncture treatment. The other group will start with 3 weeks without acupunctural treatment followed by 3 weeks during which they will receive six acupuncture treatments. The total trial period is thus six weeks. After the trial period, patients will be offered continued acupuncture treatment. The individual acupuncture treatments last approx. 1.5 hours and consist of 45 minutes of conversation followed by 45 minutes of acupuncture treatment.

## **Procedure**

The medical practitioner will provide written and oral information about the project to the patients entering the oncology department. The patient will be given a minimum of 24 hours for reflection. If the patient has been alone at the interview, he or she will be encouraged to discuss any decisions regarding participation with a close relative. If a patient wishes to participate, a project nurse will hand out baseline questionnaires for the patient to complete. Then randomization will be conducted. The patient will receive questionnaires after three and six weeks. Patients not responding will be reminded once by phone. If a patient does not respond after the reminder, no further contact will be made and the patient will be excluded from the study. After 6 weeks, the project nurse will contact the patient to clarify the patient's wishes concerning further acupuncture treatment. Furthermore, the patient will be asked to complete questionnaires after 12 and 24 weeks.

## **Measurement**

Visual analogue scales (VAS) will be used to measure pain, nausea, fatigue, and dyspnea as well as expected effects of the acupuncture treatment. Any use of other complementary and alternative treatments will be recorded and validated. Danish questionnaires will be used to measure QoL and perceived cancer-related self-efficacy control. Questionnaires include the EORTC QLQ-30 (10) and the Cancer Behaviour Inventory (Merluzzi et al 2001). The patients' performance status (WHO-performance rating scale), use of antiemetics, analgesics and any other oncological treatment variables will be recorded continuously.

## **Data analysis**

The groups will be compared with respect to the most prevalent symptom experienced by the individual patient (pain, nausea, or dyspnea). Effects will initially be estimated as differences in VAS scores between the two groups using t-tests, followed by multivariate statistics controlling for relevant factors. Multivariate analysis will be used to estimate the association between intervention effect and psychological parameters.

## **Cooperation with CAM-practitioners**

Acupuncture practitioners meeting the demands made by the National Board of Health for registered alternative practitioners will perform treatment.

## **Synergy with other projects**

This project serves in conjunction with project 2.1.2. to explore placebo mechanisms and possible moderators of placebo responses. The results will, in conjunction with project 1.1. on the use and perceived benefit of CAM among cancer patients, explore possible moderators and mediating mechanisms in perceived effects of CAM.

## References

- Alimi D, Rubino C, Pichard-Léandri E, et al. Analgesic effect of auricular acupuncture for cancer pain: a randomized, blinded, controlled trial. *Journal of Clinical Oncology* 2003; 21:4120-4126.
- Brady MJ, Peterman AH, Fitchett G, Mo M, Cella D. A case for including spirituality in QoL measurement in oncology. *Psycho-Oncology* 1999; 8(5):417-428.
- Correa-Velez I, Clavarino A, Barnett AG, Eastwood H. Use of complementary and alternative medicine and QoL: changes at the end of life. *Palliative Medicine* 2003; 17(8):695-703.
- Cotton SP, Levine EG, Fitzpatrick CM, Dold KH, Targ E. Exploring the relationships among spiritual well-being, QoL, and psychological adjustment in women with breast cancer. *Psycho-Oncology* 1999; 8(5):429-438.
- Fields H, Price D. *Toward a neurobiology of placebo analgesia. The placebo effect. An interdisciplinary exploration.* Cambridge, England: Harvard University Press, 1997.
- Fisch MJ, Titzer ML, Kristeller JL, Shen JZ, Loehrer PJ, Jung SH et al. Assessment of QoL in outpatients with advanced cancer: The accuracy of clinician estimations and the relevance of spiritual well-being - A Hoosier Oncology Group Study. *Journal of Clinical Oncology* 2003; 21(14):2754-2759.
- Gioiella ME, Berkman B, Robinson M. Spirituality and QoL in gynaecologic oncology patients. *Cancer Practice* 1998; 6(6):333-338.
- Guess HA, Kleinman A, Kusek JW, Engel LW. *The science of the placebo. Toward an interdisciplinary research agenda.* BMJ Books London, 2002.
- Kaptchuck T. Acupuncture: theory, efficacy and practice. *Ann Intern Med* 2002; 136:374-383.
- Klee M, Groenvold M, Machin D. QoL of Danish women: Population-based norms for the EORTC QLQ-C30. *QoL Research* 1997; 6(1):27-34.
- Mayer D. An evidence-based review of the clinical literature. *Annu Rev Med* 2000; 51:49-63.
- Merluzzi TV, Nairn RC, Hegde K, Sanchez MAM, Dunn L. Self-efficacy for coping with cancer: Revision of the cancer behavior inventory (version 2.0). *Psycho-Oncology* 2001; 10(3):206-217.
- Peterman AH, Fitchett G, Brady MJ, Hernandez L, Cella D. Measuring spiritual well-being in people with cancer: The functional assessment of chronic illness therapy-spiritual well-being scale (FACIT-Sp). *Annals of Behavioral Medicine* 2002; 24(1):49-58.
- Potter J, Hami F, Bryan T, et al. Symptoms in 400 referred to palliative care services: prevalence and pattern. *Palliative Medicine* 2003; 17:310-304.
- Rønnov L, Kimby CK, Launsø L, Langgaard H. Kræftpatienters erfaringer med ukonventionel behandling. *Ugeskrift for Læger* 2004; 166(25):2454-2457.
- Storm HH, Engholm G. Overlevelse for danske kræftpatienter diagnosticeret 1981 til 1997 og fulgt til år 2001 - tabeller. 27.maj. *Kræftens Bekæmpelses Hjemmeside* 2002.
- Storm HH, Engholm G. Relativ overlevelse for danske kræftpatienter 1981 til 1997 og fulgt til år 2001 - en status. *Ugeskrift for Læger* 2002; 164:2855-2864.
- Vase L, Riley J, Price D. A comparison of placebo effects in clinical analgesic trials versus studies of placebo analgesia. *Pain* 2002; 99:443-452.
- Vickers AJ, Cassileth BR. Unconventional therapies for cancer and cancer-related symptoms. *Lancet Oncology* 2001; 2(2):226-232.

Walsh D, Rybicki L, Nelson KA, Donnelly S. Symptoms and prognosis in advanced cancer. *Supportive Care in Cancer* 2002; 10(5):385-388.

WHOQOL Group. The WHO QoL assessment (WHOQOL) position paper from the World Health Organization. *Social Science and Medicine* 1995; 41:1403-1409.

## **2.2 Odense-team, under supervision of Anette Damkier**

### **2.2.1 Use and effect of CAM in cancer patients**

Project 2.2.1 is a pilot study in preparation for a Ph.D.-study. The phase will result in a description of the study. The study will be conducted at the Department of Oncology, Odense University, and seek acceptance as a Ph.D.-study at The Faculty of Health Sciences, University of Southern Denmark.

#### **Background**

The use of CAM has increased through the last decades (Kjøller & Rasmussen), and it is reasonable to believe the use of CAM by ill people also has increased. Few studies describe the use of CAM by Danish cancer patients (Baggesen 1989; Hasle & Rose 1991; Damkier et al 1994; Jensen & Rose 1995; Damkier 2000; Molassiotis et al 2005). There are no larger, updated studies, and the existing studies have been done mainly on patients in oncology wards. The use in several groups of cancer patients is sparsely described, e.g. cancer patients only having surgery or patients who formerly did not receive antineoplastic treatment. To monitor, describe, and include the patient's assessment of effects, as well as compare it with clinical/biological disease parameters, it is necessary to have an instrument for this registration. For this, there is no validated, Danish questionnaire.

#### **Aim**

The purpose of the pilot study is to work out a detailed protocol for the Ph.D.-study. The Ph.D.-study will include the development and validation of a questionnaire for registration of patients' use of CAM and their own assessment of effect. In the development of the questionnaire, the knowledge and experience from other studies and or questionnaires from other countries will be involved. Their inclusion maximises the possibility of comparison with the results from other studies. Information about questionnaires used previously will be gathered. A plan for the development, validation and the carrying out of a questionnaire will be made in the pilot study period.

The Ph.D.-study also aims to develop methods to monitor the use of CAM and the patients' assessment of effect. Further, to relate these to clinical/biological disease parameters (e.g. sex, age, stage of disease, survival, time to progression, performance status, and lengths of hospital admissions).

### **Time-schedule**

The scholarship for the pilot study will be announced in a public notice in February 2006. Anette Damkier, Olfred Hansen and Helle Johannessen will assess applications. The pilot study is expected to be carried out in March-August 2006 with a subsequent application for a Ph.D.-study.

### **Cooperation with CAM-practitioners**

Leila Eriksen and Annemarie Goldschmidt will supervise and participate in developing the studies.

### **Synergy with other projects**

To promote interdisciplinary comparability the patient population in study 2.2.1 will be defined in collaboration with study 2.1.1. Data from the project will contribute to knowledge on CAM use among cancer patients and may provide further inspiration for particular areas of focus for diagnose-specific or treatment-specific investigations as well as further qualitative studies. The focus of study 2.2.1 also enables interdisciplinary comparability with the qualitative approaches of study 2.2.2 and 2.2.3 – the latter relating to a cultural perspective.

### **References**

Baggesen H, Lund-Jacobsen M, Birtø K. (1989). Hvorfor vælger nogle cancerpatienter alternative terapi?(II). En spørgeskemaundersøgelse. *Klinisk Sygepleje* 5:19-26.

Damkier A, Jensen AB, Rose C. (1994). Kræftpatienters brug af Q10. *Ugeskr Læger* 156:813-18.

Damkier A. (2000) Kræftpatienter brug af alternativ behandling. Ph.d-afhandling, Syddansk Universitet. [Cancer patients' use of alternative medicine. PhD-dissertation, University of Southern Denmark].

Hasle H, Rose C. (1991). Hajleverolie (alkoxyglucerosol) og cancerbehandling. *Ugeskr Læger* 153:343-46.

Jensen, A. B. & Rose, C. (1995). Breast cancer patients and alternative treatment. *European Journal of Cancer*, 31A, 278.

Molassiotis, A. et al. (2005). Use of complementary and alternative medicine in cancer patients: a European survey. *Annals of Oncology*, 16, 655-663.

## **2.2.2 Complementary medicine for cancer in Italy, India and Denmark – a comparative study of relations between agency, experience and socio-cultural structures of health care.**

Project 2.2.2 is conducted by Helle Johannessen

The use of complementary and alternative medicine (CAM) among persons with cancer and any potential implications of this on patients' and practitioners' experience and agency concerning the disease are features closely related to their cultural and social context. This study investigates the significance of the socio-cultural context for patients' and practitioners' choice of using CAM and the subjectively experienced implications concerning disease and healing. Field studies in Italy and India will generate data on the use and potential benefits of CAM concerning cancer. The data will be comparable to data generated in Denmark by other research teams of Centre for Cross-disciplinary Evaluation Studies of Complementary and Alternative Medicine (CCESCAM).

Italy and India have been chosen as sites for this particular investigation, because the cultural and social conditions in these countries vary considerably, also compared with Danish conditions. Further because surveys regarding the use of CAM indicate that in all three countries more than half of the patients complement conventional (biomedical) treatment of cancer with some kind of CAM (Cassileth 1999; Crocetti et al 1996; Damkier 2000; Schraub 2000; Sureshkumar 1996; Molassiotis et al. 2005). Studies do demonstrate, however, variation in the number of cancer patients using CAM and in the forms of CAM used. These features may be connected to national variations in the general pattern of CAM use and in the social recognition (licence to practice, registrations or illegality) of different kinds of CAM (Johannessen 1995, 1998).

Social conditions concerning the availability of biomedical treatment as well as CAM differ between Denmark, India and Italy concerning the economy of health care (state financed, private insurance financed, financed through user fees). This offers the possibility to investigate what implications user payment and public support have on patient strategies concerning disease and healing. This issue seems relevant to pursue, as the potential significance of user payment for motivation and effects has been a recurring theme in debates on CAM. The economy regarding biomedicine and CAM may further be hypothesised to have implications for the relation between the patient and the practitioner, as the form of payment involved may influence the roles acquired by (or attributed to) each party (patient-healer, consumer-provider, client-advisor, etc) (conf. Mogensen & Ngulube 2001). The three countries that figure in this study provide therefore good potentials for comparative data on the political economy of health and its relations to subjective experiences and personal choice of health care.

A social perspective on the political economy of health must be complemented by a study of the cultural contexts for CAM and cancer as provided in Denmark, India and Italy. An obvious issue to investigate is what implications the different religions and forms of religious practice have for the personal experiences and agency in regard to self, body and disease, and thus also for individual strategies regarding diseases like cancer. The three countries represent societies dominated by Protestant Christianity (Denmark), Catholic Christianity (Italy) and Hinduism (India) and therefore provide interesting potentials for comparative research in the borderland of religion and healing.

## **Methods**

The project is designed as a combined literature study and field study. The aim is to investigate and compare social and cultural conditions in relation to cancer patients' use of, and subjectively experienced results of, CAM as well as the experience of their own disease process. These investigations will be used in an attempt to clarify the significance of the social and cultural context for the use of CAM as well as for the implications of CAM for patients' manner of coping with cancer. The researcher's many years of research on CAM in Denmark (Johannessen 1994, 2006) provides background knowledge for the concrete empirical studies on cancer and CAM in Italy and India in this study. The data from this study will further be complemented by results from other studies within CCESCAM on Danish cancer patients' use of CAM.

The first phase of the project consists of a 6-month literature study and preliminary establishment of contacts with relevant partners in Italy and India. The aim of this phase is to investigate research publications and primary documents regarding social structures and cultural issues in relation to health care in Italy and India. Particular attention will be paid to CAM and cancer. This phase will be carried out from January to June 2006.

The second phase consists of empirical field studies, including a 4-month field study in Italy (August-November 2006), followed by a 3-month return to Denmark for data processing and, subsequently, a short field study in India (March 2007) and follow-up visits to Italy during 2007. Due to the variety in socio-cultural patterns of health care in the countries involved the field studies will initially involve a general exploration of the CAM field, provision of public health care, the economic structure of health care and religious practice. The more focused exploration of cancer patients' use of CAM will take departure in hospital oncology wards (preferably day hospitals), in order to match the complementary field studies in Denmark, thus enabling data comparison. During field studies, conversations will be carried out with practitioners of conventional medicine as well as CAM practitioners and with as many patients as possible, regardless of the type and stage of cancer from which they suffer. Some conversations may be in the form of focus group discussions, some as casual small talk and some as in-depth interview; the exact forms and numbers of conversations depend on what turns out to be possible in the field. Patients will initially be approached with the aim of filling out a questionnaire previously used in a European survey of the use and perceived effects of CAM among cancer patients

(Molassiotis et al. 2005). This questionnaire will provide base-line data on a large number of patients and provide opportunities for more personal conversations. The aim of the extended conversations is to generate further in-depth knowledge on perceptions of conventional and alternative medicine, including information on the use of CAM, subjectively experienced effects of CAM, subjective experiences of the disease process, religious practice, social and economical conditions, and strategies and choice of treatments in connection to the cancer.

In addition to the communication with a large number of cancer patients and practitioners, attempts will be made to form closer relations with approximately 12 key informants in Italy in order to follow these persons over a longer period. The key informants should include individuals that complement the biomedical treatment with alternative medical substances (herbs, homeopathy, etc), some that use manipulative techniques (reflexology, acupuncture, massage, etc) and some that use mental techniques (spiritual healing, meditation, visualisation, etc.). This spread in therapeutic approaches will match the Danish cohort. Besides long term contact and repeated conversations with the key informants, it will hopefully be possible to do participant observation at clinical encounters in hospitals as well as CAM-clinics and other relevant settings.

Contact with the key informants will be continued after returning from the field through letters, emails, telephone calls and by revisits.

The third phase consists of 12 months of data-processing, analysis and writing of papers (January-December 2008). In this phase, data from the Danish studies will be incorporated for comparative purposes.

### **Ethics**

Participants will be informed of the objectives of the study both orally and in writing. All participants may withdraw from the study at any given time. All participants and participating institutions will be anonymous in any publications. The project will follow any local regulations for social science research and necessary research permits will be obtained prior to the field studies.

### **Cooperation with CAM-practitioners**

Marianne Garst will supervise the project.

### **Synergy with other projects**

This project will generate data that can be compared to the CCESCAM study on the employment of disease and health in various clinical settings in Denmark (2.2.3). Further, it can be compared with the questionnaire-based study of hope and quality of life among Danish cancer patients who use CAM (2.1.1). In investigations of the importance of the social context, this project will also link to the project concerning the health economics of CAM (2.3).

## References

- Cassileth, BR, (1999) Complementary therapies: Overview and state of the art. *Cancer Nursing* 22:1:85.
- Crocetti, E., Crotti, N., Montella, M., Musso, M., (1996) Complementary medicine and oncologists' attitudes: A survey in Italy. *Tumori* 82:6:539-542.
- Damkier A. (2000) Kræftpatienter brug af alternativ behandling. Ph.d-afhandling, Syddansk Universitet. [Cancer patients' use of alternative medicine. PhD-dissertation, University of Southern Denmark].
- Johannessen, H. (1994) Komplekse Kroppe – alternativ behandling I antropologisk perspektiv [Complex bodies – alternative medicine in an anthropological perspective]. Copenhagen: Academic Press.
- Johannessen, H. (1995) Alternativ behandling i Europa - udbredelse brug og effekt. Et litteraturstudie. København, Sundhedsstyrelsens Råd vedrørende alternativ behandling. [Alternative medicine in Europe – dissemination, use and effect. A Literature study. Copenhagen: The National Board of Health].
- Johannessen, H. (1998) Una visión general de la medicina alternativa en Europa: Distribución, usos y efectos, In: *Natura Medicatrix*, no. 51:9-16
- Johannessen, H. & I. Lázár (eds) (2006) *Multiple Medical Realities – Patients and Healers in Biomedical, Alternative and Traditional Medicine*. London: Berghahn Press.
- Mogensen, HO., Ngulube, TJ. (2001). Whose Ownership? Which Stakes? Communities and Health Workers Participating In The Zambian Health Reform. *Urban Anthropology* 30(1):71-102.
- Molassiotis, A. et al. (2005). Use of complementary and alternative medicine in cancer patients: a European survey. *Annals of Oncology*, 16, 655-663.
- Schraub, S. (2000) Unproven methods in cancer: a worldwide problem. *Supportive Care in Cancer* 8:1:10-15.
- Sureshkumar, K., Rajagopal, MR. (1996). Palliative care in Kerala - Problems at presentation in 440 patients with advanced cancer in a south Indian state. *Palliative Medicine* 10:4:293-298

### **2.2.3 Implications of therapeutic employment in conventional and in complementary and alternative medicine (CAM) for cancer patients' illness narratives and experience of quality of life**

Project 2.2.3 is a PhD-study conducted by Anita Ulrich. Main supervisor is Helle Johannessen; co-supervisor is Olfred Hansen and Per Pfeiffer. The Faculty of Health Sciences, University of Southern Denmark, has approved the project.

#### **Purpose**

The purpose of the project is to investigate the implications of therapeutic employment in conventional cancer treatment and CAM treatment for cancer patients' experience of quality of life. How the clinical praxis at hospital and by CAM practitioners create plot and pattern in the experience of cancer and the

implications of the clinical employment of treatment for cancer patients' experience of quality of life will be investigated. The methods to be used are participant observations, formal and informal interviews and focus group discussions.

### **Method**

Participants are recruited from the Department of Oncology at Odense University Hospital. They are chosen from a group of patients with a diagnosis of gynaecological, breast or lung cancer. The primary criteria for inclusion is the patients' choice of different forms of treatment; primarily users and non-users of CAM, secondarily three types of CAM treatment: 1) alternative medical substances and dietary supplements, i.e. homoeopathy; 2) manipulative practices, i.e. reflexology; and 3) spiritual therapies, i.e. spiritual healing (Sharma 1992). The choice to focus on three types of CAM is to investigate differences between various types of CAM (Johannessen 1994). In recruitment of participants, various treatment forms have been sought, i.e. the focus is on the implications of different forms of treatment rather than different forms of cancer. Accordingly, other types of cancer diagnoses than gynaecological, breast or lung cancer may be chosen for practical reasons.

The participants are to be followed in different contexts through a period. Twelve patients participate as key informants, twelve patients as focus group informants. Key informants will be followed intensively during an observation period of one year of conventional treatments and CAM treatments, and by formal and informal interviews. The twelve key informants will be interviewed by follow-up interviews one and a half years after the patients' first contact with the oncological department at Odense University Hospital. 18 months and two years after the first contact with the department, the informants will be interviewed again.

The focus group informants meet regularly in two focus groups of six participants each at 0, 3, 6, 9 and 12 months after the patients' first contact with the oncological department at Odense University Hospital. Thereafter they meet again 18 months and two years after the first contact with the unit.

### **Data generation**

Through participant observation, formal and informal interviews and focus group discussions data will be generated. The data will concern the implications of therapeutic employment in conventional cancer treatment and CAM treatment for cancer patients' experience of quality of life as expressed in treatments and in cancer patients' accounts of the cancer process.

### **Analysis and data coding**

How the employment of different treatment processes is created between practitioners and patients in conventional cancer and CAM treatments is emphasised through continuous analysis. In addition, there is an analysis of how informants express their experience of the cancer process and their experience of quality of life. Finally, an analysis is made of the pattern between themes related to treatment processes and themes related to informants' expressed experience of the cancer process and quality of life.

## **Ethics**

The project follows the rules governing research ethics as outlined by the Danish Research Agency ([www.forsk.dk](http://www.forsk.dk)). The project has been approved by The Danish Data Protection Agency. All data are treated confidentially and pseudonyms used in reports and presentations. All participants are informed that participation is voluntary. The investigation will be so implemented as to minimize stress to the patients. The Danish Cancer Society's Counselling Centre in Odense supports the project by offering supervision.

## **Cooperation with CAM practitioners**

Marianne Garst is supervisor and cooperates in making the design of the project.

## **Synergy with other projects**

The project relates to project 2.1.1 concerning CAM and quality of life and project 2.2.2 concerning cancer patients' use of CAM in cross-cultural perspectives.

## **References**

Johannessen, H (1994) *Komplekse kroppe. Alternativ behandling i antropologisk perspektiv.* København: Akademisk Forlag.

Sharma, Ursula (1992) *Complementary Medicine Today. Practitioners and Patients.* London and New York: Tavistock/Routledge.

## **2.3 Analysis of the supply of complementary and alternative medical treatments (CAM)**

Project 2.3 will be carried out under the supervision of Kjeld Møller Pedersen and Jan Sørensen.

### **Objectives**

Despite the documented large demand for CAM, there is limited knowledge of the number of providers of CAM in Denmark and the treatments they provide. The objective of this project is to describe and analyse the supply side of the market for CAM as part of a health economic assessment of CAM.

The analysis will focus on several issues:

- The number of suppliers offering CAM in Denmark
- The types of CAM offered in Denmark
- The educational and professional qualifications of the suppliers (including postgraduate training, quality development, registration and affiliation to professional organisations)
- Collaboration between suppliers of CAM and the traditional health care service
- How the individual supplier has organised his or her practice (single/multipartner practice, clinic organisation, collaborative partners)
- Practice facilities
- Market strategies (including recruitment of clients, marketing, advertising etc.)
- Client flows
- Treatment capacity
- Treatment fees (costs and principles for their determination)

Further, special focus will be given to issues related to the supply of CAM for patients with cancer.

To fulfil these objectives a postal questionnaire survey will be undertaken in which respondents will be recruited in collaboration with the large Danish CAM organisations: Landsorganisationen NaturSundhedsRådet (LNS); The Health Council (SR); The Union of Alternative Therapists in Denmark (SAB); and Holistisk Sundhed. The anticipation is that these organisations will give access to updated registers of their members' postal addresses and to support the project by informing their members of the survey. This recruitment strategy will not include all CAM. It will exclude those that are not registered with the collaborating organisations. These are expected to be few, however, and therefore represent only a minor part of the market. The project strategy will also be discussed with Knowledge & Research Centre for Alternative Medicine (ViFAB) and the National Board of Health's Advisory Committee for Alternative Treatments (SRAB).

The project aims at providing new and relevant information about important characteristics of the market for CAM in Denmark. This information will contribute to current knowledge about the market for CAM. It would form a basis for planning and regulation of this market. The results are also expected to provide much-needed information about the future practice of registration of CAM providers with the National Board of Health.

### **Method**

The project will be carried out as a postal questionnaire survey with subsequent statistical analysis.

A single common questionnaire will be sent to all suppliers of CAM registered with the above organisations. The questionnaire's development will be based on the previous experiences of the Danish Reflexologists Association (FDZ), the Danish Medical Association and other professional health organisations. The questionnaire will, probably comprise about 50 structured questions with predefined answers. To ensure a high response rate and validity the questionnaire will be pilot-tested among a small group of potential respondents to ensure relevance and clarity. The validity will be tested further in focus groups comprising a small number of participants selected from the target groups.

The focus of the analysis will be to provide an overall statistical summary of the supply-side of the CAM market. A large part of the analysis will be descriptive frequency tables and cross-tables aimed at describing numbers of suppliers, clients and revenues according to different criteria (type of supplier, health problems treated etc.). A similar description will be made for different groups of suppliers.

### **Ethical issues**

As the data collection is concerned only with issues related to providers of professional services, registration with the Danish Data Agency is not required. The survey is also outside the remit of the Scientific Ethics Committees. The potential respondents will be informed in writing of the objectives of the survey and the purposes for which their responses will be used.

### **Cooperation with CAM-practitioners**

The project will be carried out in collaboration with the professional organisations mentioned above.

### **Synergy with other projects**

This project on the supply-side of the CAM market will act as a supplement to the other projects of CCESCAM, which focus on patient outcome from CAM, by providing an economic context for other projects' results. By comparing data on the CAM preferences of cancer patients with, for example, information from CAM suppliers regarding their provision in relation to cancer, it will be possible to describe the use of different types of CAM by different groups of cancer patients.

## **2.4 CCESCAM-VID – Knowledge-sharing, -representation and -conceptualisation in an interdisciplinary environment**

Project 2.4 is a PhD-preparatory study conducted by Catrine Thygesen under the supervision of Morten Pilegaard and Birthe Toft. The subsequent study will seek acceptance as a PhD-study at the Faculty of Humanities, University of Southern Denmark.

### **Background**

It is a well-known problem in interdisciplinary research environments that different scientific disciplines often have divergent comprehensions of concepts and methods. This dilemma affects the possibilities for successful research outcome and affects co-operation, dialogue and knowledge-synergy in the group.

### **Purpose**

The PhD-preparatory study serves the purpose of specifying the latent interdisciplinary problems in the research group caused by varying scientific vocabularies. The members of the research group are involved in different, demarcated research projects and it is therefore essential that they engage in an ongoing knowledge sharing if they are to benefit from the interdisciplinary research objective. The knowledge sharing should be focused on clarifying concepts and research methods across the various research projects and scientific disciplines represented in the group. In the PhD-preparatory study the possibilities of knowledge sharing within the research group are exploited and explicated.

### **Procedure**

The research group consists of researchers from Social Sciences, Health sciences, Humanities and Natural science. Furthermore, each project has two alternative consultants attached. All of these experts have different ways of approaching the subject of the research: 'Evaluation studies in Complementary and Alternative Medicine in relation to cancer'. In order to specify the varying vocabularies and approaches it is necessary to talk to each of the members of the research group. This is done by separate interviews focused on clarifying:

- the central concepts of the different research projects
- the researchers approach to the interdisciplinary aspect of their project
- what could motivate and stimulate knowledge sharing in the research group

### **Method**

The project is designed as a combination of theory and practice: By studying and analyzing the central scientific texts representing the various scientific disciplines, it is possible to demarcate the central concepts of the research projects. This knowledge is then used to prepare an interview guide for the following interviews. Each interview is recorded and transcribed and the results will be used afterwards to specify how it is possible to facilitate knowledge sharing in the research group.

Throughout the project period, interaction between the project coordinator and the participants in the group is made possible through dialogue, discussions and feedback. The aim is to create an interdisciplinary environment that induces the participants to relate to each other's projects and thereby create mutual understanding and knowledge-synergy.

### **Prospects for at PhD-project**

Subsequently, the results of the preparatory study are used to develop and adjust the IKT-applications necessary for facilitating knowledge sharing. The knowledge sharing is centred round a terminological knowledge base that holds descriptions of the central terms used in the different projects and their interrelations.

From the knowledge gained and stored through the terminological analysis, a semantic ontology is developed that represents the specific domain 'Evaluation studies in Complementary and Alternative Medicine in relation to cancer'. The ontology should reflect the three different approaches to the subject: cultural, social and clinical. The ontology is implemented using the Topic Map technology.

### **Synergy with other projects**

The CCESCAM-VID project will ideally create synergy with all of the existent projects in CCESCAM. The overall goal of the proposed project is to create a common vocabulary to be used in the research group and thus to enable the researchers to benefit from each others knowledge and enable knowledge exchange and synergy in the group. The project will focus on gathering the knowledge gained in all of the research projects for the purpose of enabling the researchers to gather an understanding of each others research projects and exploit possible parallels between projects.

### **References**

Daconta, Michael et al.: *The Semantic Web*, Wiley, 2003

Fairclough, Norman: *Language and power*, Longman, 2001

Gillam, Lee et al: "Terminology and the construction of ontology" IN: *Terminology 11:1*, pp 55-81, John Benjamins publishing company 2005

Lakoff, George & Mark Johnson: *Hverdagens metaforer*, Gyldendal, 1980

Passin, Thomas B.: *Explorer's guide to the semantic web*, Manning, 2004

Pepper, Steve: The TAO of Topic Maps, 2002 (<http://www.ontopia.net/topicmaps/materials/tao.html> )

Sowa, John: *Knowledge Representation – Logical, philosophical, and Computational Foundations*, 2000

Sowa, John: *Principles of Semantic Networks*, Morgan Kaufmann Publishers, inc., 1991

Temmerman, Rita: *Towards New Ways of Terminology Description: The sociocognitive approach*, John Benjamins publishing company, 2000

Wright, Sue Ellen et al.: *Handbook of terminology management – volume 1*, John Benjamins publishing company, 1997

[www.ontopia.com](http://www.ontopia.com) : Topic map applikation

[www.cyc.com](http://www.cyc.com) : ontologi project

<http://wordnet.princeton.edu/obtain.shtml> : Wordnet - et leksikalsk ontologi projekt

<http://cidoc.ics.forth.gr/> : CIDOC conceptual reference model

## Participants

<p>Consultant, PhD  <b>Anette Damkier</b>  The Palliative Care Team in Vejle County</p>	<p>Professor, Health Economist  <b>Kjeld Møller Pedersen</b>  Department of Health Economics  Institute of Public Health  University of Southern Denmark</p>
<p>Zone therapist and advisor  <b>Leila Eriksen</b></p>	<p>Consultant, PhD  <b>Per Pfeiffer</b>  Department of Oncology  Odense University Hospital</p>
<p>Body therapist and nurse  <b>Marianne Garst</b></p>	<p>Professor, Director of Centre for Medical LSP, MA  <b>Morten Pilegaard</b>  Center for Medical LSP  Aarhus School of Business</p>
<p>Kinesiologist  <b>Annemarie Goldschmidt</b>  Head of The Health Council</p>	<p>Head of Department  Cand.polit., MSc. in Health Economy  <b>Jan Sørensen</b>  CAST, Institute of Public Health  University of Southern Denmark</p>
<p>Consultant, PhD  <b>Olfred Hansen</b>  Department of Oncology  Odense University Hospital</p>	<p>Cand.it., Research Assistant  <b>Catrine Thygesen</b>  Center for Medical LSP  Aarhus School of Business</p>
<p>Consultant, PhD  <b>Anders Bonde Jensen</b>  Department of Oncology  Aarhus University Hospital</p>	<p>Cand.scient.anth., PhD-student  <b>Anita Ulrich</b>  Health, Man &amp; Society, Institute of Public Health  University of Southern Denmark</p>
<p>Anthropologist, PhD  Associate Professor, Research Leader  <b>Helle Johannessen</b>  Health, Man &amp; Society, Institute of Public Health  University of Southern Denmark</p>	<p>MSc., PhD  <b>Lene Vase</b>  Department of Psychology  University of Aarhus</p>
<p>BSc, PhD-student  <b>Christina G. Pedersen</b>  Psychooncology Research Unit, Aarhus University  Hospital and Department of Psychology, University of  Aarhus</p>	<p>Professor, MSc., MDSci.  <b>Robert (Bobby) Zachariae</b>  Psychooncology Research Unit, Aarhus University  Hospital and Department of Psychology, University of  Aarhus</p>