Institute of Health Research

Current Research, Completed Research, PhD, Department Head and Research Team

March 2015
# Table of contents

Aging, end of life  
*Current Research*  
*Completed Research*  

Mental health  
*Current Research*  
*Completed Research*  

Chronic disease, integration  
*Current Research*  
*Completed Research*  

Movement, sport, health and handicap  
*Current Research*  
*Completed Research*  

Training and professionnal practices  
*Current Research*  
*Completed Research*  
*Current PhD Research*  

Development, validation, evaluation of clinical or technical tools and practices  
*Current Research*  
*Completed Research*  
*Current PhD Research*  

Socio-sanitary context ; social determinants of health  
*Current Research*  
*Completed Research*  
*Current PhD Research*  

Communication, interaction, therapeutic education  
*Current Research*  
*Completed Research*  
*Current PhD Research*  

Department Head and Present Research Team  
*Contact*  
*Present Research Team*
Abbreviations for research Foundations

- **CTI**: The innovation promotion agency
- **DORE**: Do Research, the Swiss National Science Foundation’s (SNSF) funding instrument for practical research at universities of applied sciences
- **HES-SO**: University of Applied Studies Western Switzerland
- **OPET**: Federal Office for Professional Education and Technology
- **SNSF**: Swiss National Science Foundation
- **FOPH**: Federal Office of Public Health
Aging, end of life
Following two previous HES studies carried out in partnership with the Oncology Department of the canton Valais, this research aims at investigating subjective experiences of changes in chemotherapy, from oral to intravenous forms or vice versa. Our objective is to understand the experience of ill persons aged 70 and over, who have cancer and receive a palliative treatment in an oncology unit, which means that there is no hope for a cure but a hope of treatment and thus a hope of prolonging life, reducing symptoms, or improving the quality of life. While these changes in drugs significantly alter the relationship with oneself, others and the management of everyday life, how are these medicines understood and interpreted by the people involved? Are they associated with specific representations when one has cancer, is old and in a palliative situation? What we will focus on in this research will not be the type of cancer nor a type of medicine in particular, but the patients’ perception of the illness trajectory and the links that are made or not with the medicines prescribed.

Health services utilization associated with growing elderly population is a serious challenge for heath care systems around the world. In 2009, 36.1% of patients discharged from acute care in Switzerland were older than 65 years.1 Growing economic pressure, care complexity, comorbidities related to ageing, decreasing hospital length of stay and thus available time for discharge planning are responsible for many adverse events after hospital discharge. Effective discharge preparation should ensure better preparation to go home for patients and therefore, decrease the risk of adverse events, rehospitalization and unplanned health service utilization. Discharge planning process was identified as the weak point of hospital stays.2 It is difficult to determine the contribution of theses multiple interventions to elderly and caregivers health-related outcomes. The aim of this systematic review is to determine the best available evidence of the effectiveness of nursing discharge planning interventions and to assess their relative impact on health related outcomes and quality of life for elderly patients returning home.

1 Hall, DeFrances, Williams, Golosinskiy, & Schwartzman, 2010
2 Coffey, 2006; Rydeman & Tornkvist, 2006
Completed Research

Annick Anchisi
In collaboration with Nicolas Kühne (EESP), Marie-Christine Follonier (HESAV), Jérôme Debons (HESAV). End 2013

Annick Anchisi
In collaboration with Rose Anna Foley (HESAV), Clothilde Palazzo Crettol (HES-SO). End 2011

Annick Anchisi
In collaboration with C. Bigoni and B. Despland (HESAV), V. Hugentobler (INAG). End 2008

Clothilde Palazzo-Crettol (HES-SO Valais)
In collaboration with Annick Anchisi (HESAV), Corinne Dallera (HESAV) End 2013

Pierre Gobet and Elisabeth Hirsch (EESP, HES-SO)
In collaboration with Annick Anchisi (HESAV). End 2011

Cédric Mabire
In collaboration with Céline Goulet (UNIL), Christophe Büla (CUTR Sylvana), Diane Morin (UNIL), Joanie Pellet (HESAV). End 2013

Murielle Pott
In collaboration with Laetitia Stauffer (HESAV), Claudia Gamondi Palmesino (Unità e Servizio Cure Palliative, Istituto Oncologico della Svizzera Italiana). End 2013

Murielle Pott
In collaboration with Jérôme Debons (HESAV). End 2012

Murielle Pott
In collaboration with Rose Anna Foley (HESAV), Laurence Seferdjeli (Oncology Dpt Valais). End 2009

Work organisation in the provision of help and care at home to persons aged 80 and over: the example of three home care centres.

Oral chemotherapy by persons aged 70 and over: Crossed representations and practices between patients, general practitioners and specialist.

Implementation of home support for people in age AVS* in the context of the 2nd revision of the LaMal: the example of the county Valais.

Growing old together under the gaze of professionals: theatricalised intimacy?

Health systems and long-term care for older people in Europe – Modelling the INTERfaces and LINKS between prevention, rehabilitation, quality of services and informal care.

Discharge planning and readiness for hospital discharge, anxiety and avoidable utilization of health care of hospitalized elderly in medical unit.

To take part in an assisted suicide: an exploratory study on the experiences of relatives and their representations of end of life, death and bereavement.

Four seasons in a nursing home. Analysis of the adjustment process during the first year of life in a nursing home.

Palliative home care for persons in a symptomatic stage: crossed view points of the actors involved.
Mental health
Current Research

Stories for History: Polyphony of Psychiatry

ALEXIA STANTZOS

In collaboration with Emilie Bovet (HESAV).

Funding: Commission scientifique du domaine santé HES-SO.

This project evolved from an acknowledgement, shared by practitioners and researchers working in the field of mental health: the transmission of professional skills fails to account the oral narrative and the historical context of the psychiatry in the French speaking part of Switzerland. This project aims to make students, professionals and the general public aware of the complexity of psychiatry, through a documentary support with «filmed portraits», which reflect the variety of actors in the psychiatric field (eg nurses, architects, psychiatrists, patients, occupational therapists, pharmacists, neuroscientists, historians, etc.).

This project seeks:
(a) to value the importance of oral transmission in the psychiatric field
(b) to show the various issues of practicing psychiatry, at an historical level, in therapeutic knowledge, in stories and in mental health policies.

We work with two partners, IUHMSP (Institute of History of Medicine) and Facteur (i) Interfaculty Research Group of the University of Lausanne.
**Completed Research**

**Krzysztof Skuza**  
In collaboration with Emmanuelle Opsommer (HESAV), Gilles Bangerter (HESAV), Raymond Panchaud (Fondation de Nant), Julie Dubois (Fondation de Nant), Audrey Linder (HESAV), Diane Martin (HESAV).  
End 2014

Marion Droz Mendelzweig, (HEdS La Source)  
In collaboration with Krzysztof Skuza (HESAV).  
End 2013

**Alexia Stantzos**  
In collaboration with Gilles Bangerter (HESAV), Angelika Güsewell (HEMU), Cédric Bottand (HEIG-VD), Emilie Bovet (HESAV). End 2014

**Alexia Stantzos**  
In collaboration with Gilles Bangerter (HESAV), Bertrand Graz (CHUV). End 2010

Cold wet sheet packs (CWSP): clinical indications, efficacy and subjective experience of the patients in adult acute in-patient psychiatric ward.

Patient but not sick: effects of an equivocal clinical diagnosis on persons with MCI diagnosis, their relatives and on professional care givers. The case of MCI on question.

Rethinking the practice of intensive care in acute psychiatry units. Towards the construction of a research-action. Elaboration, application and evaluation of a musical object in an intensive care room.

Assessing an interview technique aimed at improving the admission and prognosis of acute psychotic patients.
Chronic disease, integration
Current Research

The patient’s pain experience in spinal cord injury: a qualitative approach

EMMANUELLE OPSOMMER

In collaboration with Isabelle Probst (HESAV), Sara Mahnig (HESAV) and Virginie Wicky-Roten (Clinique romande de réadaptation, Sion).

Funding: Swiss Paraplegic Research ; SwiSCI - Study center.

The aims of the present study are first to explore in-depth the patient’s pain experience after SCI and second to help improving the type and timing of interventions to assist patients to cope with chronic pain. Qualitative methods will be used to explore ways patients with SCI cope and manage chronic pain within an approach combining a ‘social-environmental perspective’ and a ‘psychological-personal perspective’. These experiences of patients are then presented to various professionals involved in the rehabilitation and confronted to their own views in order to explore if new ways of management could emerge; this by reducing the gap between the health care solution and methods and strategies used by patients to manage pain.

Laser evoked potentials (LEPs) and quantitative sensory testing (QST) and their contribution to sensory assessment of patients with and without pain after spinal cord injury: A feasibility study.

EMMANUELLE OPSOMMER

In collaboration with Gunther Landmann (Center for Pain Medicine, Swiss Paraplegic Centre, Nottwil), Léon Plaghki (Université catholique de Louvain, Belgique) and Armin Curt (University of Zurich).

Funding: Commission scientifique du domaine santé HES-SO.

Neuropathic pain affects about half the individuals with spinal cord injury (SCI) and is mostly described as severe altering the patient’s participation and the activities in their daily life. Quantitative sensory testing (QST) and laser evoked potentials (LEPs) are recommended and have been used extensively to assess neurological dysfunction in several populations affected by neuropathic pain. The main project aims at evaluating the capacity of combined LEPs and QST for quantifying the neurological dysfunctions in persons with and without below level pain after SCI in accordance with the International Spinal Cord Injury Pain (ISCIP) classification. Yet, for this population we lack normative data from multimodal studies and information regarding reliability and validity of these neurophysiological methods. Hence, we will first conduct a feasibility study before conducting a project on a large scale.
Non-specific chronic low back pain patients’ expectations toward physiotherapy and physiotherapists: An interpretive socio-anthropological study on ill persons’ experience

CLAUDE PICHONNAZ

In collaboration with Rose-Anna Foley (HESAV), Hervé Jaccard (HESAV), Josiane Mbarga (HESAV).

Funding: Commission scientifique du domaine santé HES-SO.

Non-specific chronic low back pain guidelines recommend rehabilitation along with a biopsychosocial approach. However, though psychological and social issues address important needs of professionals and patients, they have been scarcely developed in this area so far. Noteworthy, little is known about patients’ expectations relative to physiotherapy for chronic low back pain (CLBP), while professional recommendations advocate taking them into consideration. A study about patients’ experience will provide knowledge about the ill person’s perspective and how the physiotherapists are perceived as well as the role attributed to them. The aim of this study is, thus, to explore the experience of the patients suffering from CLBP in order to highlight their expectations toward physiotherapy services and physiotherapists. We will apply a critically interpretive socio-anthropological approach based on patients’ interviews and observations in an intensive CLBP rehabilitation program. The results will help improve the care patients receive by facilitating the integration of biopsychosocial issues related to patient’s expectations into the treatment.

Completed Research

Emmanuelle opsommer
In collaboration with Roger Hilfiker (HES-SO Valais Wallis), Geert Crombez (Université de Grand, Belgique), Gilles Rivier (Clinique romande de réadaptation, Sion). End 2013

Emmanuelle Opsommer
In collaboration with Roger Hilfiker (HES-SO Valais), Barbara Roland-Raval (HESAV), Virgine Roten (HESAV). End 2013

A psychometric evaluation of the chronic low back pain - from a physiotherapeutic perspective.

Mental representation of pain in patients with acute and chronic low back pain.
Movement, sport, health and handicap
Current Research

Postural adjustments during tandem ski activity in multi-disabilities children

FRANCIS DEGACHE

In collaboration with Diane Schmied (HESAV), Christopher Newman (CHUV).

Funding: Fondation Terre-vent, Genève.

Following successful results about postural adaptations with people suffering from motor disabilities and cerebral palsy during sports activities such as hyppotherapy, ice skating and tandem ski, this study aims to evaluate if the tandem ski involve as well postural adaptations, more specifically in the cervical and trunk areas, for polyhandicap children and polyhandicap teenagers. This study is a pilot one, as never such a project has been carried on with this type of population and in this type of conditions. 1 control group (GC), consisting of 10 healthy children/teenagers and 1 polyhandicap group (Gpo), consisting of 17 polyhandicap children/teenagers, have been assessed. Each subject has been equipped with a set of 9 captors type Physilog (www.gaitup.ch), 7 inertial captors spread over the subject to the different body segments such as « head », « C7 », « sternum », « trunk », « pelvis », « right leg », « left leg » and « seat » (scotched on the tandem ski) ; 1 Physilog Gold Mote located in the examiner’s pocket, 1 Physilog Gold+GPS located in the pocket of the tandem ski’s driver. One slalom, consisting in 5 left turns and 5 right turns, has been organised on the same slope’s portion for the entire study. Each subject led by the same tandem ski driver has done twice the slalom. The results provide first evidence of postural adaptations, more specifically in the cervical and trunk areas, against the acceleration forces caused by the turns during skiing down a slope with a tandem ski for the polyhandicap children/teenagers. Indeed, despite their disabilities, when we examined the cumulated movement’s quantity on the totality of the slope’s portion without making any difference between left turns and right turns, we find absolutely no difference for any segments in terms of quantity motricity’s activity’s between the GC and the Gpo. However, our results do not bring any information on the fact to know if these postural adaptations are the consequence of voluntary movements or a submission to the accelerations caused by the turns.
Completed Research

Kenny Guex
Director of thesis: Prof. Grégoire Millet.
Co-director: Dr. Gerald Gremion.
Faculty of biology and medicine of the University of Lausanne.
Institute of Sports Science, department de Physiologie of the University of Lausanne.
End 2015

Testing, performance and injury prevention of the hamstring in sprinters
Training and professionnal practices
Research topic. Sociological, anthropological and historical approaches of the nursing profession are strongly influenced by U.S. research tradition from the second half of the twentieth century. The latter is characterized by a predominance of interactionist approaches which depict the nursing profession as a relatively homogenous entity, defined by its relationship with the medical profession. While taking cue from this tradition, the present research aims to break from some of its aspects, viewing the nursing profession as a social space possessing certain field properties. The objective is to demonstrate in which ways this profession forms a relatively autonomous system composed of specific positions which entertain competitive relationships with each other. We thus propose to answer a triple question: 1) How does the space of professional positions structure itself within the nursing profession? 2) How does the space of opinions and beliefs structure itself within the nursing profession? 3) What relationship unites both structures?

Method. An exploratory research based on 20 interviews with nurses as well as a documentary analysis has been done in 2012 and allowed to uncover the main structuring lines of the nursing professional space. On this basis, a questionnaire has been designed and forwarded to nurses throughout Western Switzerland. The data processing will favor multiple correspondence analysis (MCA), as it entertains an affinity with the concept of field.
Completed Research

Geneviève de Rham
In collaboration with Marcelo Valli (HESAV), Pascal Wagner-Egger (HESAV). End 2008

José Jorge
In collaboration with Livia Scheller (CNAM, Paris). End 2011

Véronique Addor (Heds Genève)
In collaboration with André Jeannin (IUMSP), Philippe Lehmann (HESAV), René Schwendimann (INS, Basel)

Yvonne Meyer
In collaboration with Claudia König (ZHAW), Franziska Schläppy (HESAV). End 2013

Christine Pirinoli
In collaboration with Véronique Hasler (HESAV) and Vincent Barras (IUHMSP). End 2010

Eliane Perin (HEDS Geneva)
In collaboration with Murielle Pott (HESAV). End 2009

Séverine Rey
In collaboration with José Jorge (HESAV), Céline Schnegg (HESAV). End 2014

Séverine Rey
In collaboration with Christine Pirinoli (HESAV), Mélanie Battistini (HESAV). End 2013

Séverine Rey
In collaboration with Christine Pirinoli and Nicole Richli Meystre (HESAV). End 2011

Corinne Schaub
In collaboration with Marie-Christine Follonier and Catherine Borel (HESAV). End 2009

Veronika Schoeb
In collaboration with Jan Kool (ZHAW), Marco Barbero (SUPSI), Amir Tal (BFH), Barbara Rau (HESAV), Irina Nast (ZHAW). End 2012

Status of the physiotherapy profession.

Communicative activity: effects and functions analysis in medical radiation technologists.

n@w (Nurses at Work), Longitudinal retrospective cohort study of nurses’ career paths and retention (Feasibility Study).

Birth complications in home-settings or in free standing centres. Midwives’ and women’s perspective on decision making.

Socio-historical approach of physiotherapy and its education in the state of Vaud.

Women’s course of action when requesting termination of pregnancy (TOP) and healthcare professionals’ and social workers’ point of views within the framework of the new provisions of the law (art. 119-120 PC, 02.07.2002) concerning TOP in French-speaking Switzerland.

Seing, thinking and doing with images: technological mediation and professional practices in the medical radiology technologists community. An anthropological study.

Gender and atypical education choices within the HES-SO (University of Applied Sciences and Arts Western Switzerland). Trajectories of minority students (fields of study: Engineering-Architecture and Health).

Gender and horizontal segregation in the health professions: sharing the daily practice.

Care of demented elderly in institutions: Analysis of the influence of representations of caregivers regarding their practices of touch.

Physiotherapy relevant scientific projects: how are they defined and what is expected?
Physiotherapy is gradually recognized in Switzerland as a separate profession from a legal point of view since the Interwar period. The laws reveal a plural profession, built by aggregation or fragmentation, depending on multiple logics. (Switzerland being a decentralized country, each canton has its own legislation.)

This dissertation aims to present physiotherapy in western Switzerland during the 20th century through social and cultural history angles. Beyond a purely descriptive approach, it aims to deconstruct the ‘physiotherapy entity’, in order to revisit categories of thinking and social representations. In this purpose, physiotherapy will be seen in the light of its diversity and its «dynamic». In other words, it will be seen as a profession in constant change and in interdependence with other neighboring professional activities. The analysis will include identifying which clinical practices establish themselves, regress or disappear through people who are using them under given conditions. Furthermore, the social and cultural practices that characterize physiotherapy will be highlighted from the perspective of cultural and anthropological history. In this more thematic approach, I will particularly focus on the representations and social uses of body. Gender and transnational dimensions will also be taken into account in this analysis.

The sources include (1) archives of cantonal and federal authorities, of professional associations and schools. This investigation also relies on a large selection of primary and secondary sources (2), as well as on (3) semi-structured interviews with women and men chosen for their connection with the subject of the dissertation. I expect to enlighten physiotherapy in a novel way and contribute to rethink the profession and its contemporary issues.
Development, validation, evaluation of clinical or technical tools and practices
The effectiveness of interventions to prevent or reduce Contrast Media Extravasations among patients undergoing computerised tomography scanning: a systematic review protocol

SANDRINE DING

In collaboration with Nicole Richli Meystre (HESAV), Cosmin Campeanu (HESAV), Giuseppe Gullo (CHUV).

Funding: Commission scientifique du domaine santé HES-SO.

Review question/objective

The primary objective of the review is to identify the effectiveness of interventions to prevent or reduce contrast medium extravasation in patients undergoing Computerised Tomographic (CT) examination. The specific review question is: What is the effectiveness of methods to prevent or reduce Contrast Media Extravasations among patients undergoing computerised tomography scanning?

Inclusion criteria

Types of participants

This review will consider studies that included patients (adults or children), undergoing a CT examination, for any indication and of any part of the body, and requiring use of an IV administration of contrast media material. The examination can be either a classical CT or an interventional radiology CT procedure. The participants may be either inpatients or ambulatory care patients.

This review will not consider studies investigating extravasations in the framework of chemotherapy, anaesthesiology or parenteral nutrition. Indeed, the products used present a very different composition and thus different properties (e.g. viscosity and toxicity) compared to contrast media.

Types of intervention(s)/phenomena of interest

This review will consider studies that evaluated interventions which may prevent extravasation of contrast media or reduce its severity. Accordingly, it will include any strategies, related to:

- The contrast agent (volume, concentration, viscosity, temperature)
- The injection per se (patient injection site, preparation room)
- The material used for injection (catheter gauge, cannulas, butterfly, venflon)
- The apparatus used (detection device: ultrasound, radiofrequency),
- The healthcare professionals (profession, skills)
- The patient risk assessment by the radiology personnel (medication, morbidity, language).

The comparators of this study will be either other interventions, such as a different contrast agent, another cannula, or usual care, such as the absence of preparation room or detection device.

Types of outcomes

This review will consider studies that include the primary and secondary outcomes described below.

Primary patient outcomes will include:

- Extravasation frequency
- Extravasation volume
- Extravasation severity, including inflammatory reactions, necrosis, pain
- Complications, including plastic surgery and amputation.

Secondary outcome measures will include:

- Diagnostic value and accuracy
- Workflow
- False positive detection of extravasation. This outcome is particular to the interventions using detection device.
Effectiveness of temporary deafferentation of the arm on somatosensory and motor functions following stroke: a systematic review.

EMMANUELLE OPSOMMER

In collaboration with Camille Zwissig (HESAV) and Thomas Weiss (Université de Jena, Allemagne).

Funding: Commission scientifique du domaine santé HES-SO.

After a cerebrovascular accident (stroke), more than 80% of patients have sensory-motor dysfunctions of the upper limb in the acute phase and 50 to 70% of them keep a non-functional arm. These deficiencies limit activities and restrict participation in situations of everyday life. Hence, the work of therapists is fully oriented towards the recovery of function or compensation by appropriate therapies. A novel approach, capable of modulating mechanisms of bilateral cortical reorganization, is temporary deafferentation. It reduces voluntarily the somatosensory input in a body part by temporary anesthesia. Early studies on deafferentation used a pneumatic tourniquet, or nerve block to achieve anesthesia. However, these methods have significant disadvantages. Currently, studies focus on the use of an anesthetic cream (such as Emla) covered with an occlusive bandage. This anesthesia is an inexpensive technique with only minimal side-effects and is better tolerated by the patients. The rapid changes in somatosensory and motor bilateral cortical representations during and after deafferentation have been demonstrated in several functional brain imaging studies. These changes occurred in healthy subjects but also in patients with chronic stroke. To date, there is no systematic review summarizing these studies. Therefore, our goal is to produce a systematic review of studies on the effectiveness and acceptability of temporary deafferentation on sensorimotor functions of the upper limb after stroke.


A new robotic parallel kinematic system (LHS) for the training of lower limbs in hemiplegic patients: a feasibility study.

NICOLAS PERRET

In collaboration with Rolf Firschknecht (CHUV).

Funding: Commission scientifique du domaine santé HES-SO.

The project is part of the development of a robot named Lambda parallel kinematic Health System (LHS). It was designed by the High School of Engineering and Management of Vaud (HEIG-dv) for use in hospital settings. The project’s primary objective is to show the feasibility of training with stroke patients on LHS in terms of safety, ergonomics and intensity. Secondly, clinical data collected on motricity and spasticity will guide future research projects aimed to measure the effects of training with LHS.

AUDoRaP: Ubiquitous access to radiological patient record.

PPAO-3D: Computerized three dimensional pre-operative planning for total hip arthroplasty.

Dynamic Post-Mortem Angiography.

Dosimetric aspects of CT and PET/CT examinations repeated in children suffering from lymphoma: towards an optimisation of the practice.

A pilot study on the exposure of the population by medical radiology and how it can be automatically checked.

Smoking cessation counselling for mothers during postpartum.

Test-retest reliability of thermal quantitative sensory testing on two sites within the L5 dermatome of the lumbar spine and lower extremity.


Development and validation of the simplest possible kinematic functional shoulder test.

Outcome of manual lymphatic drainage following total knee arthroplasty surgery.
Claude Pichonnaz

Brigitte Jolles-Haeberli (CHUV, Lausanne)
In collaboration with Claude Pichonnaz and Jean-Philippe Bassin (HESAV), Alain Farron (CHUV), Kamiar Aminian (EPFL, Lausanne). End 2010

Anne-Sylvie Ramelet
In collaboration with Nicole Rimaz-Keller (HESAV), Michaël Hofer (CHUV), Joaquim Rapin (CHUV), Béatrice Fonjallaz (Ligue genevoise contre le rhumatisme), Ghislaine Aubel (CHUV), Christophe Gueniat (HESAV), Sandra Zoni (HESAV). End 2014

Lower Leg Edema Evaluation After Total Knee Arthroplasty Using Bioimpedance.

A new method for treatment outcome evaluation in shoulder pathology using kinematic sensors.

Impact of a telenursing service on satisfaction and health outcomes of children with inflammatory rheumatologic diseases and their family: a crossover trial.
The impact of a multidisciplinary self-care management program on quality of life, self-care behavior, adherence to the antihypertensive treatment, glycemic control, and renal function in elderly living with diabetic kidney disease.

NANCY HELOU

Director of thesis: Dr. Maya Shaha, PhD, RN.
Co-director Dr. Anne Zanchi(CHUV).

University Institute of training and care research.
Faculty of Biology and Medicine of the University of Lausanne.

Diabetic Kidney Disease (DKD) is becoming a global health concern. Despite advances in pharmacological and management strategies, DKD remain associated with high morbidity and mortality. Patients living with such chronic disease, are expected, on daily basis to manage their self-care activities. Patients’ non-adherence to the treatment is thought to be the major cause for the poor control and the occurrence of complications. Previous researchers have shown that multidisciplinary management of chronic disease can improve patients’ self-care and outcomes. However, none of these programs was centered on self-care and targeted the patients with DKD. A multidisciplinary self-care management program could improve the outcomes of patients with DKD, and delay the progression of the disease.

The aim of the study is to investigate the effect of a multidisciplinary self-care management program on self-care behavior, quality of life, medication adherence, glycemic control and renal function, in patients with DKD.

The study will use a cross-over design. 40 patients with DKD, will be randomly recruited from the Vaud University Medical Center, nephrology department and will be enrolled in the program for 12 month. All variables will be measured at baseline, three, six, nine and 12 month. We will measure the patients’ self-care behavior, quality of life, adherence to the anti-hypertensive medication taking using, the Revised Summary of Diabetes Self-Care Activities questionnaire, the Audit of Diabetes-Dependent Quality of life questionnaire and the Medication Events Monitoring System. We will assess the patients’ glycemic control by measuring the glycated hemoglobin and the renal function by measuring the serum creatinine and the microalbumin creatinine ratio.

The study will clearly show if a multidisciplinary self-care management program will improve the health outcomes of patients with DKD and will allow us to recommend the establishment of such a program.

Clinical studies investigated the feasibility and the effectiveness of coupling aerosol therapy with non invasive positive pressure ventilation (NIPPV) in patient with respiratory diseases. The results show that bronchodilators administered either via a nebulizer or a metered-dose inhaler (MDI) placed in-line may provide greater and faster improvements in respiratory load and respiratory symptoms than delivered during unassisted spontaneous breathing. Clinical efficiency of inhaled therapy during NIPPV depends on the amount of drugs reaching the lungs. So far, there is insufficient evidence to either guide the choice of aerosol device and the type of ventilators used for efficient treatment in patients receiving NIPPV. The aim of this study is to compare lung deposition of amikacin delivered by a vibrating mesh nebulizer used alone or coupled to a single limb circuit NIPPV device.
Measurement of shoulder function is a controversial issue. There is a great variety of measurement tools but none of them has been universally accepted. There is therefore a need to develop extensively validated and convenient measurement tools. Embedded computerized movement analysis can potentially meet these requirements for measurement of shoulder function. Ambulatory measurement devices allow application in various clinical conditions, display adequate precision and accuracy, and are considerably more straightforward than laboratory-based systems. Using a Physilog® II embedded system, Coley (2007) developed a relatively simple score of shoulder function (P Score). The method is based on arm power measurement by three-dimensional accelerometers and gyroscopes during seven consecutive shoulder movements. It demonstrated reliability, responsiveness and criterion-based validity. However, additional knowledge and technological progress could now contribute to further simplification of the. A secondary analysis of Coley’s study data based on principal component analysis and multiple regressions highlighted that a procedure including only two selected movements produces comparable results to P Score. Moreover, the development of wireless systems considerably simplifies set up. Consequently, simpler but equivalent measurement procedure can now be considered. However, this new approach has now to undergo extensive validation to precisely establish its measurement properties.

Aim
The aim of the study is to establish measurement properties of a simplified shoulder functional kinematic score, considering scope of application in shoulder pathologies, intra- and inter-observer reproducibility, responsiveness, minimal clinically important difference and criterion-based validity.

Methods
A clinical validation study is planned. Measurement will be carried out with four groups of patients representative of frequent shoulder conditions (rotator cuff condition, shoulder instability, diaphyseal or subcapital humerus fracture, frozen shoulder) and a control group free from any shoulder condition. Measurement procedure includes two consecutive measurements, alternatively conducted by two evaluators at baseline, and an additional single measurement 6 months later. Currently used functional questionnaires will be completed at both stages.

Analysis will address intra- and inter-observer reproducibility, responsiveness, minimal clinically important difference and criterion-based validity, respectively for the four considered shoulder conditions.
Socio-sanitary context; social determinants of health
Historical and sociological perspectives on the construction of organ donation as a public problem in Switzerland.

RAPHAEL HAMMER

In collaboration with Vincent Barras (IUHMSP) and Manuel Pascual (CHUV), François Kaech (HESAV), Alexia Cochand (HESAV).

Funding: SNSF Div. I.

The purpose of this research project is to study organ donation as a public problem in the Swiss context, using both sociological and historical approaches. Two main empirical fields are planned. The first one aims to reconstitute historically how the concept of organ donation has developed on one side, and how organ donation has been recognized as a social problem and as a category of public action on the other side. In other words, we will examine how transplantation as a medical issue has progressively become a focus of social and political concern. Analysis will be based on a corpus of various historical sources. The second empirical field aims to describe and understand how patients associations contribute to construct organ donation as a public problem. In particular, we will examine their engagement in the public sphere as well as in providing psychosocial support to transplant patients. Focus will be on associations’ political and symbolic work, which can be defined as actions and strategies aiming to influence social perception frames of organ donation and to shape patients’ personal experience. Semi-directive interviews with members of transplant patients associations and with non-engaged transplant patients will be carried out.
Living under the new paradigm of the Swiss disability insurance

JEAN-PIERRE TABIN (EESP)

In collaboration with Isabelle Probst (HESAV).

Funding: SNSF Div. I.

Lead

The Swiss disability insurance (DI) has recently undergone fundamental changes. For example, medical conditions previously seen as debilitating are no longer considered as such, pensions are now reviewed every few years, rehabilitation measures are considerably more numerous, and so-called « early intervention measures » (on the job) have been implemented. As a consequence, the former boundary of the DI between disability and ability has been blurred. What are the consequences of these changes on former, potential or current DI recipients and their relatives?

Content and aims of the project

In accordance with policies aimed at activating social welfare recipients, the 5th and 6th revisions of the DI have restricted the right to disability pensions and introduced various measures in order to sustain the employability of persons with health issues. As a whole, these revisions sketch a new paradigm in the DI: the distinction between people working and pension recipients is no more clear-cut; every – even potential – recipient is now a target for rehabilitation or reintegration measures. Our project aims at understanding the consequences of this new paradigm on people undergoing rehabilitation and their relatives: how do they experience it?

We will first examine how the DI administration has carried out these new policies in the canton of Vaud (Switzerland). In a second phase, we will interview former, potential or current DI recipients and their relatives in order to understand how they experience these measures, but also if they support or criticise the norms and values of the new disability policy.

Using the tools of the critical disability studies perspective, we will collect and analyse the data in partnership with persons with disabilities and disability lobbyists.
Beatrice Despland
In collaboration with Claudia Von Ballmoos (HESAV). End 2009

Michael Schumacher (HEVs)
In collaboration with Sandrine Ding (HESAV). End 2009

Nicole Richli-Meystre
In collaboration with J-L Bulliard (IUMSP). End 2011

Claudia Von Ballmoos
In collaboration with Béatrice Despland (HESAV) End 2011

Social security coverage of health care delivered by family members.

Medicoordination: A practical approach to the interoperability in the Swiss health system.


Family care-givers and health insurance: Terms and conditions of reimbursement of care.
Background: This project will explore women’s experiences, opportunities and views about expressing their preferences for care during labour and birth in two tertiary units (Aberdeen (Scotland) and Lausanne (Switzerland)). A previous pilot study in Aberdeen (case note review of 250 cases using the Scottish Women Hand Held Record) showed only 26% of women contributed to the section related to their birth plan and that their birth-plan preferences varied. Furthermore, some women preferred to be passive and, “go with medical advice”, but others preferred to be “in control” with a more active role in decision-making 1-3.

Preliminary observations in Lausanne indicate that women at >25 weeks gestation are offered a birth-plan consultation with a midwife counselor, and ~40% of women attend.

The aim: to explore the systems in place in Scotland and Switzerland to elicit women’s preferences for labour and birth and evaluate “what works”?

Objectives: To describe and compare the context policies, systems in place to elicit women's preferences.

To describe and compare the extent to which women's preferences are sought, expressed and recorded in Scottish vs. Swiss maternity records.

To explore women’s views about opportunities and methods in place to seek their preferences for labour and birth.

To critically appraise the extent to which the two systems and maternity records in place capture women's antenatal preferences about birth (as expressed in interviews).

To test if women who do express antenatal preferences about birth are associated with obstetric risk? Or particular maternal socio-demographic or theoretical psychological traits arising from qualitative data (eg. measures of perceived health competence and health locus of control).

Methods: A comparative mixed method study in two tertiary units: Aberdeen and Lausanne.

For Objective 1: A retrospective medical record review in Lausanne (as completed in Aberdeen) of socio-demographic, clinical characteristics, attendance at a birth-plan consultation and recorded birth preferences. A statistical descriptive review of the data collected in Aberdeen will inform us about the sample size needed and the variables that

For Objective 2: Qualitative interviews with 10 women in both settings to elicit their views on expressing and recording their preferences for birth and shared decision-making.

For Objective 3: Synthesis and critical appraisal of findings arising from phase 1 and 2.

For Objective 4: Using data from phase 1 and 2 develop and pilot a theory-based questionnaire survey of women in both settings to assess their perceived level of being able to express preferences, and their ideal level of expressing preferences (this would be to measure their “dissatisfaction” between actual vs. ideal? + locus of control and/or perceived health competence).

In order to pursue this research with a reflective angle, a flexible framework will be drawn so that every step will be informing the next one.

A health service perspective will be sought in order to achieve better user services utilization that require further attention in the development of future initiatives.
Communication, interaction, therapeutic education
Current Research

Risks of alcohol consumption during pregnancy: couples’ management and professional issues

RAPHAEL HAMMER

In collaboration with Yvonne Meyer (HESAV), Sophie Inglis (HESAV), Stéphanie Pfister Boulenaz (HESAV), Céline Schnegg (HESAV).

Funding: Commission scientifique du domaine santé HES-SO.

In a context where risks are a central feature in pregnancy monitoring and where role of woman’s partner has been increasingly considered by health professionals, this qualitative study deals with couples’ experience of the issue of alcohol consumption in pregnancy and its related professional issues. First, joint interviews conducted with twenty couples aim to understand better how pregnant women and their partners perceive recommendations about alcohol, and how they manage risks in everyday life. It will also highlight tensions and difficulties couples may experience. Second, two focus groups will address midwives’ perception of maternal drinking, including the role played by partners, as well as their professional practices regarding screening and prevention of maternal drinking.

GIVING BIRTH - Maman pour la première fois en Suisse: attentes et expériences de l’accouchement.

VALERIE FLEMING (ZHAW)

In collaboration with Yvonne Meyer (HESAV), Michoud Bertinotti Bénédicte (HESAV), Schirinzi Laura (HESAV), De Labrusse Claire (HESAV), Van Gogh Susanne (ZHAW), Franziska Parpan (ZHAW).

Funding: SNSF Div. I.

Giving Birth - Maman pour la première fois en Suisse: attentes et expériences de l’accouchement.

Aim. To develop a model of the emerging expectations of the mode of giving birth and the subsequent experiences of healthy primigravid women in Switzerland.

Research questions:
• What are the expectations in early pregnancy of healthy primigravid women of giving birth?
• How do expectations change during pregnancy?
• What are the influences on these expectations?
• What were the experiences of giving birth?
• How did the experience of giving birth match the expectations?

Method. The hermeneutic method of Fleming et al (2003a) involving a five stage approach will be used to inform this study. Participants will be 65 healthy primigravid women, who will be recruited from four cantons in Switzerland, through obstetricians and midwives providing antenatal care. Each consenting woman will take part in four guided conversations at approximately 20 and 34 weeks of pregnancy, six weeks and six months postpartum. Data will be transcribed verbatim and analysed according to the chosen methodology from which a model will be generated. Strict ethical standards will be maintained throughout the project.

Context. This study is being carried out in the context of a rising caesarean section rate, the perceived desire of women for elective caesarean and increasing costs of care (Gibbons et al, 2010). No well carried out longitudinal studies have been published which identify women’s changing expectations throughout and after pregnancy.

Outputs. Themes will be identified from which a model of expectations vis a vis experiences will be generated. This will in the future be used to develop a national questionnaire, which in turn will form the foundation for an epidemiological study.
Completed Research

Emmanuelle Opsommer
In collaboration with Veronika Schoeb (HESA). End 2013

Veronika Schoeb
In collaboration with Liliane Staffoni (HESAV), Silvia Riva (Institute of Communication and Health, Università della Svizzera Italiana), Sara Keel (HESAV). End 2014

Veronika Schoeb
In collaboration with Liliane Staffoni (HESAV), Alison Pilnick and Ruth Parry (University of Nottingham, UK). End 2011

Veronika Schoeb
In collaboration with Claude Pichonnaz (HESAV). End 2008

Current PhD Research

Relational care around maternity: the experience of independent midwives as a confronting mirror to Evidence Based Practice.

PATRICIA PERRENOUN
Director of thesis: Professor Ilario Rossi.

Faculty of Social Sciences and Political of the University of Lausanne.

Patricia Perrenoud is preparing her PhD thesis in Health Anthropology. She’s currently working on a comparison about conceptions and practices in the fields of Evidence Based Research and independent midwifery. Evidence Based Research is examined through a systematic and critical review of randomized controlled trials designed to assess interventions implying social skills (e.g. counseling, depression prevention, motivational interviewing) and occurring during pregnancy or the first year post partum. Midwives’ conceptions and practices are being described through a field research and a grounded theory approach. Three main topics are being thoroughly observed and analyzed in order to illustrate reflexivity in research and practice fields. These topics are: equity and acknowledgement of population’s personal, social and cultural diversity, acknowledgement and insight about context of care and finally conceptions and practices of helping behaviors. This twofold research’s aims are to describe similarities and differences between two activity fields, to unveil shared issues and to discuss complementary roles of Evidence Based Research and field reflexivity.
Department Head and Present Research Team
UNIVERSITY OF HEALTH SCIENCES
Christine Pirinoli
Dean of Research
Av. de Beaumont 21
1011 Lausanne
T: +41 21 316 81 00
F: +41 21 316 81 02
christine.pirinoli@hesav.ch
www.hesav.ch

URS Secretariat
Véronique Dussault
Joana Carrim
Av. de Beaumont 21
1011 Lausanne
T: +41 21 316 81 01
F: +41 21 316 81 02
veronique.dussault@hesav.ch
joana.carrim@hesav.ch
recherche@hesav.ch
www.hesav.ch
Present Research Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANCEY Céline</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>ANCHISI Annick</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>ANSERMET Claire</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>BOVET Emilie</td>
<td>HES Teacher</td>
<td></td>
</tr>
<tr>
<td>COCHAND Alexia</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>DEGACHE Francis</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>DE LABRUSSE Claire</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>DING Sandrine</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>FERREIRA Cristina</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>FLORIS Lucia</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>FOLEY Rose-Anna</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>GUEX Kenny</td>
<td>HES Teacher</td>
<td></td>
</tr>
<tr>
<td>HAMMER Raphaël</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>HASLER Véronique</td>
<td>HES Teacher</td>
<td></td>
</tr>
<tr>
<td>HELOU Nancy</td>
<td>HES Teacher</td>
<td></td>
</tr>
<tr>
<td>INGLIN Sophie</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>JORGE José</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>KAECH François</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>KNUTTI Isabelle</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>LE COULTRE Régis</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>LINDER Audrey</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>LONGCHAMP Philippe</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>MABIRE Cédric</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>MAHNGI Sara</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>MAUGUE Ludovic</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>MBARGA Josiane</td>
<td>HES Teacher</td>
<td></td>
</tr>
<tr>
<td>MEYER Yvonne</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>OPSOMMER Emmanuelle</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>PERNENNOU Patricia</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>PERRET Nicolas</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>PFISTER Stéphanie</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>PICHONNAZ Claude</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>POTT Murielle</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>PROBST Isabelle</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>RICHLI MEYSTRE</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>SCHIRINZI Laura</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>SCHMIED Diane</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>SKUZA Krzysztof</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>STAFFIONI Liliana</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>STAUFFER Laetizia</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>STANTZOS Alexia</td>
<td>HES Professor</td>
<td></td>
</tr>
<tr>
<td>TAWFIK Amal</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>THEURILLAT Clément</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>TOFFEL Kevin</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>ZOSSO Amélie</td>
<td>Research assistant</td>
<td></td>
</tr>
<tr>
<td>ZWISSIG Camille</td>
<td>Research assistant</td>
<td></td>
</tr>
</tbody>
</table>