

Two years of research at the HEdS-FR

Biennial Report 2016 and 2017

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1. Overview

This is the first biennial report from the research department of the School of Health Sciences Fribourg, HES-SO University of Applied Sciences and Arts Western Switzerland. It covers 2016 and 2017, two years during which the research department took its present form.

The School of Health Sciences in Fribourg is part of the HES-SO University of Applied Sciences and Arts Western Switzerland, and trains nurses (bachelor level) and osteopaths (masters level).

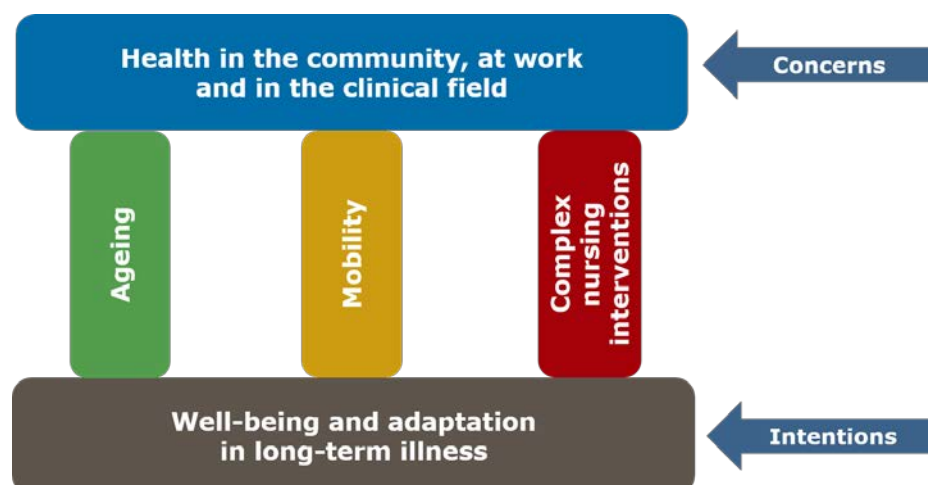
The research department strives to produce implementable solutions that are meaningful to our field partners, educators and students and help them acquire the needed insight to aim for excellence in quality of care.

Our field of action is focused on proximity research. We therefore work in close relationship with policy makers, stakeholders, professional associations, health providers, educators, and patients to document and consolidate sound strategies for addressing health challenges across disciplines.

Our research units focus on three topics: Ageing, Mobility and Complex Nursing Interventions.

- Ageing: The research unit Aging focuses on promoting healthcare quality for vulnerable elders, particularly informal caregivers of persons with dementia, and nursing home residents. It aims at developing innovative solutions for efficiently meeting the needs of these individuals, in order to optimize their quality of life.
- Mobility: The unit of research in mobility focuses on applied research in the field of musculoskeletal health and mobility. The unit's research aims to explore innovative solutions for maintaining and promoting musculoskeletal health and function and supporting individuals to optimise their engagement and interaction within the society and communities they live and work in.
- Complex Nursing Interventions: The unit's research aims are for the Cardiovascular Health focus to develop and evaluate a nurse-led clinic for the multidisciplinary follow-up of patients with Heart Failure that contributes to improved patient reported and clinical outcomes and is complementary to already existing services in Heart Failure; and for the Cancer focus to support the self-management of patients with cancer.

The three research main topics are integrated in the following framework.



Our concern is for health at three levels: the community, at work and in the clinical field, in that order, i.e. the community is first, not the hospital or any other clinical setting. After all, our research concern relates to public health and its interventions. Recognising the pandemic of chronic conditions prevailing all over the world, the aR&D units' intentions are to improve wellbeing and adaptation in long-term illness.

The following chapters are the bulk of the report and detail researchers' profile, research objectives and achievements of each of the three research units.

The coordination and management of the research department is headed by the dean. He is seconded by the research administrator and the secretary.

Alexander Bischoff

Bio: Diploma in Nursing Basel, Masters in Community Health at the Liverpool School of Tropical Medicine, PhD in Epidemiology at the University of Basel. Experience: Public Health Nursing in Developing Countries, Migrant Health Care in Switzerland, Nursing Research and Public Health. Research interests: intercultural communication, community interpreting, health care disparities and human resources for health.

Research projects

Spiritual Care in Chronic Pain. Interdisciplinary Research for interprofessional Practice in Medicine and Nursing. Funding: Swiss national science foundation, National research programme PNR74, Smarter Health Care, and HES-SO. Project leader: Simon Peng-Keller.

KiPA: Kirchliche Freiwillige in der Gemeindepflege: Entlastungsangebot für pflegende Angehörige. Church-based Volunteers in Community Care: Offering Support to Informal Caregivers. Leading House: School of Health Sciences - Fribourg. Project leader: AB. Funding: PéPA (Pénurie et Proches Aidants) HES-SO, CNHW: Competence Network Health Workforce.

Publications in 2016 and 2017

Bischoff, A. (2017). Review of Hsieh, Elaine (2016) Bilingual health communication: Working with interpreters in cross cultural care. New York/London: Routledge, 364 pp. ISBN 978-1-138-99945-9. Interpreting, 19(2), 299-304. doi: [10.1075/intp.19.2.10bis](https://doi.org/10.1075/intp.19.2.10bis)

Bischoff, A. (2017). Grundversorgung in der Gemeinde: Wo stehen die Hausärzte? Und wo die Pflegenden? *Praxis*, 106(9), 447-448. doi: [10.1024/1661-8157/a002663](https://doi.org/10.1024/1661-8157/a002663)

Bischoff, A. (2016). Establishing a faith-based organisation nursing school within a national primary health care programme in rural Tanzania: an auto-ethnographic case study. *Glob Health Action*, 9, 1-11. doi: [10.3402/gha.v9.29404](https://doi.org/10.3402/gha.v9.29404)

Beran, D., Aebischer Perone, S., Alcoba, G., **Bischoff, A.**, Bussien, C. L., Eperon, G., Hagon, O., Heller, O., Jacqueroz Bausch, F., Perone, N., Vogel, T., & Chappuis, F. (2016). Partnerships in global health and collaborative governance: lessons learnt from the Division of Tropical and Humanitarian Medicine at the Geneva University Hospitals. *Global Health*, 12(1), 14. doi: [10.1186/s12992-016-0156-x](https://doi.org/10.1186/s12992-016-0156-x)

Bischoff, A. (2016). Pflege und Migration. *Medicus Mundi Bulletin*, 137, 3-6 ([link](#))

Related to his position as dean, Alexander Bischoff is currently the president of the health research committee of the HES-SO, as well as president of the research commission of the (Conférence Commission Recherche de la Conférence spécialisée Santé ComReCSS)

François Mooser

François Mooser is professor at the School of Health Sciences HEdS-FR - HES-SO University of Applied Sciences and Arts Western Switzerland (UAS) for more than 10 years. His activities are dedicated to the teaching of anatomy-physiology to Nursing and Osteopathy Bachelor students and to the administrative management of the applied research and development (aR&D) by working closely with the accounts department of the HEdS-FR and with the secretariat office of the aR&D. Moreover, François Mooser supports the dean of aR&D in his activities, in particular those related to his role of president the aR&D committee of the faculty of the health sciences UAS which gathers the heads/deans of the aR&D of the schools of health sciences.

Martine Verdon

Martine Verdon is in charge of the secretariat of the dean of aR&D. She supports the research units by carrying out various administrative tasks.

Scientific Output in 2016 and 2017

The following table displays the scientific output of the research department of the School of Health at the University of Applied Sciences and Arts Western Switzerland – Fribourg.

	2016	2017	Total
Number of peer-reviewed publications	17	23	40
Number of non-peer-reviewed publication (professional journals, book chapters)	4	4	8
Number of submissions to financial institutions	6	6	12
Number of projects currently funded	20	16	36

1.1 Survol

Ce premier rapport bisannuel du département recherche de la Haute école de santé Fribourg couvre les années 2016-2017, période pendant laquelle notre département a entrepris des changements qui l'ont amené à sa forme actuelle.

La Haute école de santé Fribourg fait partie de la HES-SO, Haute école spécialisée de Suisse occidentale. Elle forme des étudiants en vue de l'obtention d'un bachelor en soins infirmiers ou d'un master en ostéopathie.

Notre département recherche s'efforce de proposer à nos partenaires du terrain, à nos enseignants et à nos étudiants des solutions applicables dans la pratique, afin de leur permettre d'acquérir les outils nécessaires pour tendre vers l'excellence en matière de qualité des soins.

Notre recherche se veut avant tout une recherche de proximité. Nous travaillons en étroite relation avec les autorités politiques, et plus spécialement les responsables de la santé, les professionnels de la santé et leurs organisations, le corps enseignant, et les patients, afin

de développer des stratégies interdisciplinaires efficaces pour faire face aux défis en matière de santé.

Nous travaux de recherche s'articulent autour de trois thèmes : vieillissement, mobilité et interventions infirmières complexes.

- L'unité de recherche **Vieillissement** se consacre à la promotion de soins de qualité pour les personnes âgées fragilisées, plus particulièrement les proches aidants de personnes vivant avec une démence, et les résidents de maisons de retraite médicalisées. Elle vise à développer des solutions innovantes pour répondre aux besoins de ces personnes de manière efficace, et améliorer ainsi leur qualité de vie.
- L'unité de recherche **Mobilité** se consacre à la recherche appliquée dans le domaine de la santé musculo-squelettique et de la mobilité. Les travaux de cette unité de recherche explorent de nouvelles voies pour maintenir et promouvoir la santé musculo-squelettique et les fonctions des individus, et les aider ainsi à répondre au mieux aux sollicitations de leur communauté ou de leur lieu de travail, et faciliter leurs interactions avec leur milieu de vie.
- L'unité **Interventions infirmières complexes** entreprend des travaux de recherches dans deux spécialités : la santé cardiovasculaire et l'oncologie. L'objectif en santé cardiovasculaire est de développer et évaluer une clinique dirigée par du personnel infirmier, spécialisée dans le suivi multidisciplinaire de patients avec insuffisance cardiaque, et visant à améliorer les données subjectives et les résultats cliniques des patients, tout en étant complémentaire aux services existants dans ce domaine. La branche oncologie a pour objectif de se spécialiser dans l'encouragement à l'autogestion des patients atteints de cancer.

Ces trois thèmes de recherche peuvent être schématisés comme suit :



Nous nous préoccupons des questions de santé au sein de la communauté, au travail et en milieu clinique, et ceci dans l'ordre de citation. C'est-à-dire que la communauté occupe la première place, et non l'hôpital ou toute autre institution clinique, parce que l'objet premier de nos recherches est la santé publique et les interventions qui la concernent. Sensibilisés à la prévalence d'une pandémie mondiale de maladies chroniques, nous souhaitons consacrer notre recherche aux moyens d'améliorer les conditions de vie et l'adaptation des patients atteints de maladies chroniques.

Les prochains chapitres constituent la part centrale du rapport et détaillent pour chaque unité de recherche le profil des chercheurs, les objectifs de recherche, le travail réalisé et les performances atteintes.

Production scientifique pendant la période 2016-2017

	2016	2017	Total
Nombre de publications revues par des pairs	17	23	40
Nombre d'autres publications (journaux professionnels, chapitres de livres)	4	4	8
Nombre de soumissions à des instances de financement	6	6	12
Nombre de projets financés en cours de réalisation	20	16	36

1.2 Überblick

Dies ist der erste Zweijahresbericht der Forschungsabteilung der Hochschule für Gesundheit in Freiburg. Er beschreibt, wie die Forschungsabteilung in den vergangenen zwei Jahren ihre jetzige Form gefunden hat.

Die Hochschule für Gesundheit in Freiburg ist Teil der HES-SO Fachhochschule Westschweiz und bildet Pflegefachpersonen auf Bachelor-Niveau und Osteopathen auf Master-Niveau aus.

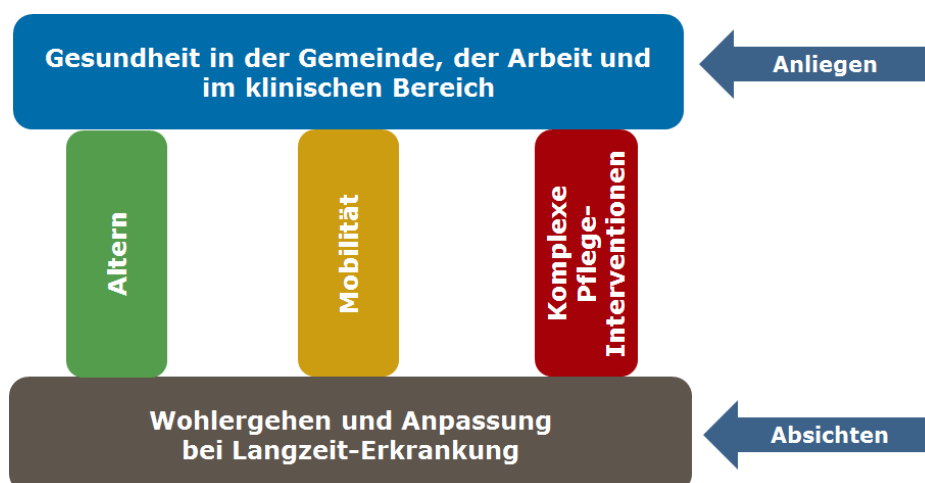
Unsere Forschungsabteilung möchte umsetzbare Lösungen anbieten, die unseren Partnern, Unterrichtenden und Studierenden helfen, das Rüstzeug zu bekommen um beste Pflegequalität zu erzielen.

Unser Anliegen ist «nahe» Forschung: praxisnahe, gemeindenah, bodennah. Wir arbeiten eng mit Fachleuten aus Politik und Gesundheitspolitik zusammen, sowie mit Berufsverbänden, Gesundheitsberufen, Lehrkräften und Patienten, um disziplinübergreifend Strategien zu entwickeln, die die gesundheitlichen Herausforderungen anpacken und sinnvolle Massnahmen ableiten.

Unsere Forschung dreht sich um drei Themen: Alter, Mobilität und Komplexe Pflegeinterventionen.

- Die Forschungseinheit **Altern** untersucht, wie die Pflegequalität für vulnerable ältere Menschen gefördert werden kann, insbesondere stehen pflegende Angehörige (PA) von Menschen mit Demenz im Zentrum unseres Interesses, wie auch Menschen in Pflegeheimen. Wir möchten innovative und effiziente Lösungen bieten, um den Bedürfnissen dieser Personen nachkommen, und so ihre Lebensqualität verbessern.
- Die Forschungseinheit **Mobilität** konzentriert sich auf die angewandte Forschung auf dem Feld der muskulo-skeletalen Gesundheit und Bewegung. Sie macht sich zum Ziel, neue Lösungen zu entwickeln, damit Menschen ihre ms Gesundheit und Funktionstüchtigkeit erhalten und fördern können, und dabei ihr Interagieren mit Gesellschaft und Gemeinde verbessern können.
- Die Forschungseinheit **Komplexe Pflegeinterventionen** hat folgende Ziele: Im Rahmen der kardiovaskulären Gesundheit soll eine pflege-gestützte Klinik entwickelt und evaluiert werden. Sie ist als multidisziplinärer Follow-up für Patienten mit Herzinsuffizienz ausgelegt; dabei sollen die Patienten-bezogenen und die klinischen Ergebnisse verbessert werden. Ein weiteres Ziel der Forschungseinheit ist die Unterstützung zum Selbst-management von Krebspatienten.

Die drei Forschungsthemen sind im folgenden Schema integriert.



Wir sehen unser Anliegen auf drei Ebenen, auf der Gemeinde-, auf Arbeits- und auf der klinischen Ebene, und zwar in dieser Reihenfolge, in dem die Gemeinde zuerst kommt, und nicht das Spital oder ein anderes klinisches Setting, denn schliesslich ist unser Forschungsanliegen in erster Linie das der öffentlichen Gesundheit und ihren entsprechenden Interventionen. Indem wir die Pandemie chronischer Krankheiten weltweit anerkennen, möchten wir unsere Forschung ganz eindeutig auf Wohlergehen und Anpassung bei Langzeiterkrankung ausrichten.

Die folgenden Kapitel machen den grossen Teil dieses Berichtes aus. Sie beschreiben die Profile der Forschenden, die Forschungsziele und -Leistungen jeder der drei Einheiten.

Wissenschaftlicher Output in den letzten zwei Jahren (2016, 2017)

	2016	2017	Total
Anzahl von Publikationen mit Peer-Review	17	23	40
Anzahl von Publikation ohne Peer-review (Buchkapitel, Berufsspezifische Zeitschriften etc.)	4	4	8
Anzahl von eingereichten Forschungsgesuchen	6	6	12
Anzahl von Projekten, die zur Zeit finanziert werden	20	16	36

2. Report for the Research Unit in Ageing (Mental Health and Gerontology)

2.1 Introduction

2.1.1 Background

In Switzerland as in other industrialized countries, population ageing and increases in (multiple) chronic conditions result in augmented healthcare needs, particularly among elders living at home. Within this population, those with dementia are a large and rapidly expanding group. In light of the current and growing shortage in skilled health professionals, particularly nurses and general practitioners, it is a public health top priority to develop innovative solutions for maintaining the quality and accessibility of healthcare despite limited resources. In this global context, the role of informal caregivers (i.e. individuals who regularly provide unpaid care, assistance and/or supervision to a close person with reduced autonomy) is also essential in supporting the quality of life of vulnerable elders. We know that those engaging in caregiving are at higher risk of exhaustion and lowered quality of life, along with adverse consequences on their health, as well as on their social and financial situation. We therefore need to develop more appropriate solutions for supporting them in their role. As the mission of our school is to conduct applied research, in close collaboration with practice and policy makers, we are in an optimal position for improving the local healthcare practices in the near future. To achieve such a goal, we need to focus strongly on implementation and knowledge exchange between research, practice and policy, by developing and actively contributing to interdisciplinary collaborative platforms involving users, diverse professionals, associations, policy makers and researchers.

Tackling these issues are the core concerns of the Research Unit in Ageing. Our team is primarily involved in conducting applied research and development projects to improve and promote healthcare for informal dementia caregivers and nursing home residents. This includes obtaining external funding, managing and executing projects, as well as disseminating results towards the scientific community, the professionals and the public. Regarding informal dementia caregivers, our research lines currently address their daily experience, their empowerment through group training, and the assessment of their needs by healthcare professionals. Regarding nursing home residents, we currently investigate quality of care, person-centred care and relatives' participation. We are secondly devoted to promoting professionalism and credibility with our local, national and international partners in the field of Mental Health and Gerontology. This includes actively contributing to the development of collaborative platforms and partnerships with practice and policy-making institutions, and the common involvement in projects focusing on jointly identified targets for healthcare improvement. We are thirdly invested in teaching excellence and promoting evidence-informed education. This includes supporting the development of a culture of evidence-based practice and related skills among the teachers, students and professionals, as well as identifying and training change champions in this area.

The years 2014-2015 were dedicated to launching the first projects and developing the collaborations with key partners in the academic, practice, and policy-making areas. The years 2016-2017 focused on the consolidation of the established collaborations and research lines, as well as on the development of the research team. All these developments have required a very intensive investment, which is now starting to bear fruits. This reports summarises our aims, activities and achievements for 2016-2017, and presents our objectives for 2018.

The Research Unit in Ageing was initiated in 2014, shortly after the employment of Sandrine Pihet in the Research and Development Unit at the *Haute École de Santé*

(HEdS), *Filière Soins Infirmiers*. Sandrine Pihet is the head of this research unit. A steadily growing interdisciplinary team supports her, currently including five research assistants (two full-time equivalents) as well as more than 10 students and a retired clinical nurse paid by the hour.

Sandrine Pihet (PhD in clinical psychology, psychotherapist) is employed in HEdS since 2013, currently at 100%. She has expertise in daily life studies, questionnaire validation, development and evaluation of psycho-educative interventions, and more broadly in quantitative research methods and data analysis. She has experience with diverse age groups (premature newborns, adolescents, young adults, adults and elders), diverse mental disorders or conditions (depression and anxiety, addictions, conduct disorder and psychopathy, burdened informal caregivers), and diverse settings (adult psychiatric hospital, day-care center, research unit).

Stephanie Kipfer (MSc in nursing) joined the team as a research assistant at 40% on July 1st 2015. She has expertise in qualitative research methods, in particular grounded theory, and has experience in nursing homes as well as in research. She plans to start her PhD next year.

Anca Iliuta (MSc in engineering, BSc in nursing) started to support the team in March 2015, while she was still a nursing student, employed as a student assistant paid by the hour. After having completed her BSc in nursing, since January 1st 2017, she works as a research assistant at 20%, in parallel to an 80% job as a nurse in a nursing home. She plans to start her MSc in nursing in 2019, after having completed the required two years of activity as a professional.

Ewald Schorro got involved as a professor at 80% on January 1st 2016, after submitting his PhD on the use of restraint in nursing homes. He reduced to 20% on October 1st 2016, and left the team on 30th August 2017, following his decision to prioritize teaching activities.

Yoann Uehlinger (MSc in clinical and neuropsychology) started as a research assistant at 40% on October 1st 2016. He has expertise in quantitative research methods and data analysis, as well as experience in community-based psychiatry and neuropsychology. He is currently in a decision process between starting a training in psychotherapy or a PhD.

Leidy Lopez Garcia (MSc in clinical and health psychology) started to support the team as a research assistant paid by the hour on January 1st 2017, and continued at 50% since April 1st 2017. She has experience in clinical psychology. She considers starting a training in psychotherapy next year.

Typhaine Juvet (MSc in neuropsychology, BSc in nursing) joined the team as a research assistant at 50% on March 1st 2017, bringing experience in nursing homes and home care. She decided to leave the team on 30th August 2017 to be hired as a homecare nurse.

Noémie Pasquier (MSc in psychology of labor and organizations) began to work in the team as a research assistant at 50% on September 1st 2017, in replacement of Typhaine Juvet. She has expertise in burnout prevention and experience in diverse types of organizations (private, public and academic). She will start her PhD next year in one of the team's projects.

Our team is further supported by **Aurélie Klingshirn**, a retired clinical nurse with in-depth experience in homecare and expertise in dementia, who is paid by the hour within a project with informal caregivers of persons with dementia. We also have the help of more than 10 students, mostly from our school, paid by the hour for transcribing our interviews.

2.1.2 Aims and objectives of unit

A. Conduct high-quality projects (practice-relevant, externally funded, well-managed, and largely disseminated) to improve and promote healthcare for informal dementia caregivers and nursing home residents

Short-term objectives:

- Generate research ideas which are relevant for the practice and establish strong collaborations with the corresponding professionals
- Secure further funding for the projects to consolidate the current research lines
- Develop the team's competence, include juniors and professionals
- Manage and execute the projects with high quality standards
- Disseminate the results to the scientific community (writing scientific articles, participating in scientific conferences)
- Disseminate the results to the professionals (writing vulgarisation articles, participating in the nursing congress and other local venues for professionals)
- Disseminate the results to the public (e.g. organising a conference on the national day of informal caregivers)

Long-term objective:

- Establish the unit as a competence centre regarding support to informal caregivers and person-centred care in nursing homes, which is able to attract larger funding and high-quality collaborations, as well as to provide advice and training in these areas.

B. Collaborate closely with other academic, practice and decision-making institutions, as well as end-users, to foster knowledge exchange and reduce the science-practice gap

1. Promote the development of collaborative platforms including academics, practice and policy-making institutions

Short-term objectives:

- Initiate or contribute to the relevant platforms
- Initiate or contribute to common projects, particularly practice-driven ones
- Identify the successful partnerships and strengthen them
- Involve practice and policy-maker representatives in the dissemination of projects' results

2. Involve end-users in the projects

Short-term objectives:

- Always consult some representatives of end-users during the development
- When possible use a co-creation approach, in which end-users actively participate to all phases of the project
- When possible involve end-users in the dissemination of projects' results

3. Stimulate knowledge exchange with end-users, practice and policy-making institutions

Short-term objectives:

- Organise common events
- Establish personal contact by organising meetings in the field

Long-term objective for 1, 2 and 3:

- Establish a local, dynamic and well-functioning collaborative structure such as a Living Lab, including representatives of end-users as well as academic, practice and decision-making institutions, focusing on knowledge exchange

C. Promote evidence-informed education

Short-term objectives:

- Contribute to increasing quality and coherence in the teaching of research methods at Bachelor level
- Involve motivated students as research assistants paid by the hour to offer them some experience and identify promising individuals
- Include Bachelor and Master students in the ongoing projects for their theses, and support them to develop some research skills
- Support the teachers in increasing the quality of Bachelor theses in nursing (training, mentoring, etc.)

Long-term objective:

- Awareness of the importance of evidence-based practice within the HEdS and among the professionals in charge of the practical training of the students.

2.2 Achievements

2.2.1 Teaching

Bachelor in nursing

We have given diverse courses, mostly within the modules devoted to research methodology, for the French- and German-speaking, as well as for the blended learning students: statistics (Sandrine Pihet, Ewald Schorro), scientific writing (Sandrine Pihet), etc.

Student supervision

PhD co-supervision: Maya Suter, implicit measures of aggression and transgression among community and institutionalized adolescents, completion 2018, supervised by Prof. G. Zimmermann, University of Lausanne (Sandrine Pihet).

PhD co-supervision: Jill De Ridder, callous-unemotional traits and emotion recognition in community and institutionalized adolescents, completion 2018, supervised by Prof. R. Caldara, University of Fribourg (Sandrine Pihet).

Master in nursing: Colomban Merçay, difficult behaviour of the person with dementia and psychological distress of the informal caregiver in everyday life, started September 2015 and interrupted September 2016, IUFRS (Sandrine Pihet).

Master in osteopathy: Marion Vuichard, Reasons why parents bring their infant to the osteopath, started in 2017 (Sandrine Pihet).

Master in osteopathy: Danija Madjura, Audit über diagnostische Verfahren bei akuten und chronischen Zervikalgien für osteopathische manipulative Behandlungen, started in 2017 (Stephanie Kipfer).

Master in osteopathy: Anita Jost, Patient-centred communication in osteopathy, started in 2017 (Stephanie Kipfer).

Bachelor in nursing: Anca Iliuta, Benefits of a psychoeducative program for the informal caregivers of a person with dementia living at home, a qualitative study, first empirical thesis in the HEdS, completed in 2016 (Sandrine Pihet and Stephanie Kipfer).

Bachelor in nursing: Sofia Santos Victor and Viktoria Zlatanova, Stressful situations in the daily life of informal caregivers of persons with dementia living at home, a qualitative study, empirical thesis completed in 2017, received the **price for the best BSc thesis in the area of homecare** (Sandrine Pihet and Stephanie Kipfer).

Continuing education

Development of a 2-day course on stress management for professionals, given once to a group of 8 participants, resulting in high satisfaction ratings (Sandrine Pihet).

2.2.2 Collaborations and networking

GérontoNet HES-SO – Initiated the creation of a network for researchers working on ageing within the Department of Health of the HES-SO (Sandrine Pihet).

Gérontopôle Fribourg/Freiburg – Active members supporting the projects of this association (Sandrine Pihet).

PePA – Group of experts supporting the HES-SO project «Pénurie de main-d'œuvre qualifiée dans les professions de la santé : place, intégration et soutien des proches-aidants» (Sandrine Pihet).

SHURP-RESPONS 2.0 Stakeholder's group – Group of experts supporting the preparation of the second wave of data collection in the combined national studies Swiss Nursing Homes Human Resources Project (SHURP) and Residents Perspectives of Living in Nursing Homes in Switzerland (RESPONS) (Sandrine Pihet, Ewald Schorro).

2.2.3 Current Research Projects

AEMMA+ (2016-2017): After having tested the feasibility and effects of a psycho-educative program to support family caregivers of elderly persons living at home with dementia (2014-2015), this research project aims at improving the accessibility of the program while maintaining its acceptability and effects. After developing a brief and intensive version of the program to facilitate access for a wider range of caregivers, we will test whether the new version remains highly acceptable and also helps improve participants' quality of life. The project is funded by the Leenaards Foundation. Sandrine Pihet is the principal investigator, Aurélie Klingshirn (HEdS) and Sylvie Tétreault (EESP, Lausanne) are co-applicants.

QUAFIPA-benchmarking (2015-2018): This development project focuses on the assessment of quality in the nursing homes of the cantons of Fribourg and Vaud, with the collection and analysis of benchmarking data regarding human resources and patient outcomes, and the communication of results (general and specific to each nursing home) once per year. The project is funded by the Association Fribourgeoise des Institutions pour Personnes Âgées (AFIPA) and the Association Vaudoise d'Établissements Médico-Sociaux (AVDEMS). Sandrine Pihet is the principal investigator, Ewald Schorro is co-applicant.

QUAFIPA-quality of life (2016-2018): This development projects consists in a mixed methods survey to evaluate the quality of life in nursing home residents by interviewing 10 residents and 10 close relatives in each nursing home, with results communicated to each nursing home in an individual report. Twenty nursing homes of the cantons of Fribourg and Vaud will participate over two years. The project is funded by the AFIPA and the AVDEMS. Sandrine Pihet is the principal investigator, Ewald Schorro is co-applicant.

IncuPA (2016-2018): This project is a feasibility study for the development of an incubator for social innovation in the field of support for informal caregivers, in French-speaking Switzerland. In the first phase (2016-2017), the possible partners have been surveyed to identify their interest for the diverse missions of IncuPA, and motivation to participate. In the second phase (2018), a participatory approach will be used to define the concrete activities which will be offered by IncuPA, and funding will be requested, to produce a business plan. The project is currently funded by the rectorate and health domain of the HES-SO. Sandrine Pihet is the principal investigator.

Systematic review of needs assessment instruments for informal dementia caregivers (2016-2017): Reliability, validity and implementability of needs assessment instruments for informal dementia caregivers: a psychometric systematic review. The title registration has been completed in August 2016, and the protocol has been accepted in August 2017. The project is funded by the health domain of the HES-SO. Stephanie Kipfer and Sandrine Pihet are first and second authors/reviewers, respectively.

Family involvement in nursing homes (2016-2017): This development project focuses on the elaboration of recommendations for family involvement in nursing homes. The project is funded by the AFIPA. Ewald Schorro is the principal investigator, in collaboration with four nursing homes.

Network attitude [attitude réseau] (2016): This development project consisted in a survey of collaboration practices and experiences conducted in managers of nursing homes, homecare services and liaison services. The quantitative and qualitative results have been presented to over 400 participants at the *Journée de réflexion de l'AFIPA et AFAS* du 15 septembre 2016 (Université de Fribourg). The project is funded by the AFIPA and the Association Fribourgeoise Aide et Soins à domicile (AFAS). Sandrine Pihet is the principal investigator.

2.2.4 Funding applications

NRP 74 Jan 2016. Submitted Jan 2016. Supporting informal caregivers of persons living with dementia: iStrongerTogether. Outcome: rejected (Sandrine Pihet primary investigator, in collaboration with HEdS-GE, La Source, HEIG-VD, ZHAW).

NRP 74 Jan 2016. Submitted Jan 2016. Impact of a complex non-pharmacological intervention combined with a pharmacological one for people with dementia in Swiss nursing homes: Swiss Caring Quality Program (SISCA). Outcome: rejected (Sandrine Pihet co-investigator, in collaboration with ZHAW).

Fondation Leenaards. Submitted Feb 2016. Un programme psycho-éducatif pour soutenir les proches aidants de personnes âgées atteintes de démence vivant à domicile : améliorer l'accessibilité et maintenir l'efficacité. **Outcome: accepted** (Sandrine Pihet primary investigator, in collaboration with EESP).

LIVES Call of the Swiss National Centre of Competence in Research. Submitted Apr 2016. Coping and well-being associated with the dynamics of coexisting activities: a longitudinal mixed-methods study of middle-aged caregivers in Switzerland. Outcome: rejected (Sandrine Pihet co-investigator, in collaboration with La Source).

Doc.CH. Submitted Sept 2016. Development and evaluation of a dyad-centred rehabilitative intervention for individuals with mild dementia and their caregivers: a multiple single-case study. Outcome: rejected (Yoann Uehlinger primary investigator, Sandrine Pihet co-investigator, in collaboration with UniGE).

Call HES-SO Pénurie de main-d'œuvre qualifiée dans les professions de la santé: place, intégration et soutien des proches-aidants. Submitted Dec 2016. MeetMyNeeds: Assessing more efficiently the support needs in informal caregivers of persons with dementia, a mixed-method study of current practices and alternative solutions. **Outcome: accepted**, will start in May 2018 (Sandrine Pihet primary investigator, in collaboration with HEdS-GE, EESP, HES-SO Valais-Wallis).

Data@YourService (2017): This interdisciplinary development project was submitted within the call H2020 CO-CREATION-04-2017, Topic: Applied co-creation to deliver public services. Outcome: rejected (Sandrine Pihet co-investigator, in collaboration with HEdS-GE and Haute École de Gestion Genève).

2.2.5 Conferences and presentations

Congrès de l'Association Suisse des Infirmières. L'infirmière partenaire du proche aidant face à la démence. Davos. June 1st-3rd 2016. Sandrine Pihet, Stephanie Kipfer, Evelyne Progin, Brigitte Demaurex.

Conférence AVDEMS-QUAFIPA 2016. Indicateurs qualité des EMS Fribourg et Vaud. Grangeneuve. June 14th 2016. Sandrine Pihet

Tagung QUAFIPA 2016. Qualitätsindikatoren in Freiburger und Waadtländer Pflegeheimen. June 21th 2016. Ewald Schorro

Tagung QUAFIPA 2016. Bewegungseinschränkende Massnahmen im Pflegeheim - Eine explorative Studie zu Prävalenz, bewohner- und organisationsbezogenen Faktoren von bewegungseinschränkenden Massnahmen. June 21th 2016. Ewald Schorro

Swiss Health Professional Congress. Implementation of an evidence-based intervention for informal dementia caregivers in Switzerland: First results. SUPSI, Lugano. Sept 1st-2nd 2016. Sandrine Pihet, Stephanie Kipfer

Swiss Health Professional Congress. Workshop: Maintaining wellbeing, social participation in home dwelling older people. SUPSI, Lugano. Sept 1st-2nd 2016. Paul Vaucher, Roger Hilfiker, Isabel Margot, Sandrine Pihet, Dawn Carnes

Gerontologie und Geriatrie Kongress 2016. Freiheitsbeschränkende Massnahmen in Pflegeheimen in der Schweiz – Bestimmung der Prävalenz und assoziierter organisations-bezogener Merkmale. Stuttgart, Germany. September 7th-10th 2016. Ewald Schorro, Hedi Hofmann, Burkhard Haastert, Gabriele Meyer

Journée de réflexion du réseau médico-social fribourgeois. Résultats du sondage auprès des professionnels sur l'état du réseau médico-social fribourgeois. Fribourg. Sept 15th 2016. Sandrine Pihet

26th Alzheimer Europe Conference "Excellence in dementia research and care". Looking from another angle: Reframing helps reduce burden and empower caregivers of persons living at home with dementia. Copenhagen, Denmark. Oct 31th-Nov 2nd 2016. Sandrine Pihet, Stephanie Kipfer

Demi-journée de débat Gerontonet – "les proches aidant-e-s en perspective : économie, santé et travail social". Santé et proches aidant-e-s, santé des proches aidant-e-s. Lausanne. Nov 11th 2016. Sandrine Pihet

Focus santé (conférences publiques de l'Hôpital Cantonal Fribourgeois, HFR): Troubles de la mémoire et proches aidants. Fribourg. Mar 14th and 28th 2017 (in French at HFR Fribourg) and Mar 21st 2017 (in German at HFR Tafers). Sandrine Pihet, Stephanie Kipfer

Swiss PhD in Nursing Science Educational Summer School. Coping with dementia caregiving: Feasibility and effects of a psycho-educative group program, a mixed-methods study. Lausanne. August 24th 2017. Sandrine Pihet, Stephanie Kipfer

Visit of the Department of Health and Social Affairs. AEMMA - Apprendre à être mieux... pour mieux aider – un projet emblématique. Fribourg. August 28th 2017. Sandrine Pihet

15th Swiss Psychological Society Conference "Treasuring the Diversity of Psychology". We need to ask for help otherwise we drown! Challenges and benefits

of a psycho-educative group intervention for informal caregivers of persons with dementia. Lausanne. Sept 4-5th 2017. Sandrine Pihet

Forum Recherche de la Haute école de santé Fribourg. Évaluer la qualité des soins en EMS – une expérience locale ; Evaluation der Pflegequalität im Pflegeheim – eine lokale Erfahrung. Fribourg. Oct 5th 2017. Ewald Schorro, Sandrine Pihet

Plateforme de l'Association Fribourgeoise des Institutions pour Personnes Âgées « Animation en institutions », rencontre-formation 2017. Qualité de la prise en charge centrée sur la personne en EMS : importance et défis de l'animation. Fribourg. Nov 9th 2017. Sandrine Pihet

Journée recherche du domaine santé de la HES-SO « Plus proche des proches » : réflexions sur la place des proches-aidants dans le système de santé. MeetMyNeeds - Evaluer les besoins des proches-aidants : un outil électronique, pourquoi pas ? Fribourg. Nov 23th 2017. Sandrine Pihet, Isabelle Carrard, Sylvie Tétrault, Alexandre Cotting

2.2.6 Publications

Peer reviewed journals

De Ridder, J., **Pihet, S.**, Suter, M., & Caldara, R. (2016). Empathy in institutionalized adolescents with callous-unemotional traits. An Ecological Momentary Assessment Study of Emotion Recognition. *Criminal Justice and Behavior*, 43(5), 653-669. doi: [10.1177/0093854815618431](https://doi.org/10.1177/0093854815618431)

Imhof, L., **Kipfer, S.**, & Waldboth, V. (2016). Nurse-Led Palliative Care Service Facilitates Interdisciplinary Palliative Home Care. *International Journal of Palliative Nursing*, 22(8), 404-410. doi: [10.12968/ijpn.2016.22.8.404](https://doi.org/10.12968/ijpn.2016.22.8.404)

Kipfer, S., Imhof, L., & Koppitz, A. (2016). Inclusion of the personal biography in daily care – a qualitative study / Einbezug der Biographie in den Pflegealltag – eine qualitative Studie. *International Journal of Health Professions*, 2(2). doi: [10.1515/ijhp-2016-0016](https://doi.org/10.1515/ijhp-2016-0016)

Kipfer, S., Eicher, M., Oulevey Bachmann, A., & **Pihet, S.** (2018). Reliability, validity and relevance of needs assessment instruments for informal dementia caregivers: a psychometric systematic review protocol. *JBI Database of Systematic Reviews and Implementation Reports*, 16(2), 269-286. doi: [10.11124/jbisrir-2017-003367](https://doi.org/10.11124/jbisrir-2017-003367)

Koppitz, A., Bosshard, G., **Kipfer, S.**, & Imhof, L. (2016). Decision-making in caring for people with dementia at the end of life in nursing homes. *International Journal of Palliative Nursing*, 22(2), 68-75. doi: [10.12968/ijpn.2016.22.2.68](https://doi.org/10.12968/ijpn.2016.22.2.68)

Pihet, S., De Ridder, J., & Suter, M. (2017). Ecological Momentary Assessment (EMA) goes to jail: Capturing daily antisocial behaviour in its context, a feasibility and reliability study in incarcerated juvenile offenders. *European Journal of Psychological Assessment*, 33, 87-96. doi: [10.1027/1015-5759/a000275](https://doi.org/10.1027/1015-5759/a000275)

Pihet, S., Etter, S., Lemarechal, F., & Maggiori, C. (2016). Qualité de vie en établissements médico-sociaux selon les cadres et les résidents. *Revue Francophone Internationale de Recherche Infirmière*, 2(3), 147-158. doi: <https://doi.org/10.1016/j.refiri.2016.06.003>

Pihet, S., **Moses Passini, C.**, & **Eicher, M.** (2017). Good and Bad Days: Fluctuations in the Burden of Informal Dementia Caregivers, an Experience Sampling Study. *Nursing Research*, 66(6), 421-431. doi: [10.1097/NNR.0000000000000243](https://doi.org/10.1097/NNR.0000000000000243)

Suter, M., **Pihet, S.**, Zimmermann, G., de Ridder, J., Urben, S., & Stephan, P. (2017). Predicting daily-life antisocial behaviour in institutionalized adolescents with Transgression-related Implicit Association Tests. *The Journal of Forensic Psychiatry & Psychology*, 28(6), 881-900. doi: [10.1080/14789949.2017.1332772](https://doi.org/10.1080/14789949.2017.1332772)

Urben, S., Habersaat, S., **Pihet, S.**, Suter, M., de Ridder, J., & Stephan, P. (2017). Specific Contributions of Age of Onset, Callous-Unemotional Traits and Impulsivity to Reactive and Proactive Aggression in Youths with Conduct Disorders. *The Psychiatric Quarterly*. doi: [10.1007/s11126-017-9506-y](https://doi.org/10.1007/s11126-017-9506-y)

Other publications

Pihet, S. (2016). Au plus près de l'expérience vécue, en temps réel et dans son contexte. Les méthodes d'échantillonnage de l'expérience (MEE) dans l'étude de cas clinique. In V. Pomini, Y. de Roten, F. Brodard, & V. Quartier (Eds.), *L'étude de cas. Dialogue entre recherche et pratique en psychologie clinique et en psychothérapie*. Lausanne, Suisse: Antipodes.

Pihet S., Klingshirn, A., & Carrino, F. (2016). Final report for the project « Faisabilité et efficacité d'un programme psycho-éducatif pour les proches aidants de personnes âgées atteintes de démence vivant à domicile : une étude pilote ». Fribourg : Haute école de santé Fribourg.

Pihet S., Pasquier N., & Juvet T. (2017). Final report for the project « IncuPA : Incubateur de projets en faveur du soutien aux proches aidant·e·s, étude de faisabilité ».

2.3 Future

2.3.1 Teaching

The main goals are to:

- maintain efforts aiming at increasing the quality and coherence in the teaching of research methods at Bachelor level,
- maintain the involvement of motivated students as research assistants paid by the hour, and possibly diversify their activities, so that they can gain some experience and we can identify promising individuals,
- maintain the supervision of Bachelor and Master students and when possible involve them in the ongoing research projects, to support them in developing research skills
- identify opportunities for supporting the teachers in increasing the quality of Bachelor theses in nursing (training, mentoring, etc.).

2.3.2 Research

Our main goal is to complete the ongoing projects and use their results as a basis for further development, including the solicitation of funding when relevant.

For QUAFIPA-benchmarking, we will develop a new platform for the collection of data in order to automatize some of the tasks. We will also start using the multiple routine data collected for each resident (RAI assessment), which will provide the opportunity for more complex analyses and more specific indicators.

For QUAFIPA-quality of life, we will submit a funding application to the Leenaards Foundation (as a field projects) and to the Alzheimer Association, both in March 2018, aiming at the development of a cost-effective procedure for the assessment of the

quality of person-centered care in nursing homes, for residents with and without severe cognitive impairments.

For IncuPA, we will request funding from diverse organizations, including all cantons of French-speaking Switzerland, Promotion Santé Suisse, and private foundations.

For AEMMA+, we aim at a multicentre pragmatic randomized controlled trial, which we should submitted for funding to the Swiss National Science Foundation in October 2018.

Finally, we will start the new project MeetMyNeeds, aiming at the development of an online resource for the assessment of unmet needs in informal caregivers of persons with dementia.

3. Report for the Unit of Research in Mobility (Musculoskeletal Healthcare)

3.1 Introduction

3.1.1 Background

This Musculoskeletal Healthcare Research was initiated in October 2015 and continues to grow and develop.

The unit is led by Dawn Carnes and Paul Vaucher. Dawn Carnes is employed at 80% at the HEdS, her remaining 20% is spent as the director of the National Council of Osteopathic Research in the UK (www.ncor.org.uk). Paul Vaucher is employed at 75% with the remaining 25% at the CHUV.

In addition we employed two new members during the year: Katia Iglesias who joined us on September 1st 2017, she has been employed at 80% to help deliver the research modules, supervise students and contribute to the development of a joint teaching initiative with the School of Nursing and provide secretariat support to the HES R&D committee. Roy Macdonald was recruited in January 2017 at 50% for 6 months as a research assistant for the Osteo-Survey project and will continue to assist with some teaching and support with students in the School of Osteopathy.

Dawn Carnes completed her PhD at Barts and The London School of Medicine and Dentistry, Queen Mary University of London in 2006. Her research focuses on chronic musculoskeletal pain. She is involved in both quantitative and qualitative research. Dawn has a background in psychology, osteopathy, project management and health research. Since 2015, Dawn Carnes has worked as "Professeure spécialisée" at the School of Health Sciences Fribourg (University of Applied Sciences and Arts Western Switzerland - HES-SO) and her research currently focuses on the self-management of chronic musculoskeletal pain.

Paul Vaucher, a Swiss trained osteopath, has been working in research in general and community medicine since 2001. In 2006, he obtained a postgraduate master degree in clinical trials at the LSHTM before obtaining his PhD in neuroscience from the faculty of science of the university of Geneva. Since 2015, he is professor at the University of Applied Sciences Western Switzerland. His fields of interests are musculoskeletal care, complex interventions, behavioural changes, and ageing. His current research is focused on community out-of-home mobility.

Dawn and Paul have worked as a duo and their role has two remits: i) to establish a musculoskeletal research unit and ii) to embed research into the osteopathic education programme and continuing professional development.

Roy Macdonald was employed in early 2017 as a research assistant at 50% to work on the SwissOsteoSurvey project for six months. He has a Masters in osteopathy delivered by the British School of osteopathy (University College of Osteopathy) and is currently fulfilling his clinical training in Zurich as an assistant to obtain his CDS-GDK degree in Switzerland. His fields of interest are musculoskeletal disorders, chronic pain, and pain management programs. He has developed skills and expertise in running surveys and in using RedCap, an online research survey instrument.

Katia Iglesias has joined the unit in September 2017 as a lecturer and research collaborator. Trained in occupational psychology, Katia then obtained a postgraduate diploma in statistics and a PhD in psychology and science of education. She has worked as a statistician consultant for research at the university of Neuchatel, at the university

of Geneva, at the Centre of Clinical Epidemiology CHUV, and has been lecturing in statistics and methodology in both universities. Her fields of interest are statistics, well-being, and social integration.

3.1.2 Aims and objectives of unit

The Unit of Research in Mobility focuses on applied research in the field of musculoskeletal health and mobility. The unit's research aims to explore innovative solutions for maintaining and promoting musculoskeletal health and function and supporting individuals to optimise their engagement and interaction within the society and communities they live and work in.

The unit has 2 remits:

1. To deliver the research component of the BSc and MSc Osteopathy
2. To develop a portfolio of research.

3.2 Achievements

3.2.1 Teaching

BSc Osteopathy

The first cohort of 22 students successfully completed the theory module (30) and the research project module (36) during 2017.

Three students received first class awards for their research projects and one student manuscript has been submitted and approved for publication.

MSc Osteopathy

The research module was designed, the aims and learning objectives were set and content of individual modules prepared. The first cohort of 21 students received their formal teaching during semester one and have been allocated project supervisors to support them during the development and conduct of their projects.

Student supervision

Nine BSc research supervisors helped facilitate the students achieve their Bachelor degrees. A further six MSc project supervisors have been trained and are assisting the first MSc student cohort in the actualisation of their research.

3.2.2 Collaborations and networking

GerontoNet – PV initiated the creation of a network for researchers from the Department of Health working on ageing.

GerontoPole – PV contributes as a member of the group dedicated to gerontology in Fribourg.

Swiss Osteopathy Science Foundation – PV coordinating efforts in linking research to practice.

Swiss School of Public Health (ERSP). PV is involved in the pilot development of research e-learning material.

Swiss Federation of Osteopaths – Ongoing involvement to coordinate efforts in training members to create a network of osteopathic practitioners for future studies / organisation and delivery (DC PV).

COME collaboration – PV is involved in the European osteopathic collaboration project
I-CHaT – International panel of experts on Community Health and Transport – Initiation with HES-SO congress in collaboration with the EESP, leadership till 2018 (PV).

3.2.3 Research Projects 2015-2017

OsteoSurvey (completion Feb 2018): This is a survey of Swiss osteopaths to explore the role of osteopathy in the Swiss health care system and to describe osteopaths and their osteopathic practice. PV was principal investigator, DC advisor and RM research assistant.

Systematic review of manual therapy for the care of excessively distressed, unsettled and crying infants (completion March 2017): This review and meta-analyses explored the effectiveness of manual therapy for this group of infants. DC was principal investigator.

SwissPROMs (Pilot phase completion March 2018): This is a European Federation of Osteopaths funded study to establish a European database of information about patient reported outcomes after osteopathic care. DC is principal investigator.

MOCAM Study (Completion Dec 2017): This is a mixed methods study looking at the non-specific effects of treatment in complementary and allied health professionals, specifically, osteopaths, physiotherapists and acupuncturists. DC is a member of the study management group.

CHESS (completion 2019): This is a study looking at the treatment and care for chronic headaches. It involves developing an evidence intervention for the management of persistent headaches including those from medication overuse. DC is a co-applicant and member of the study management group.

I-WOTCH (completion 2018): This is a pragmatic randomised controlled trial looking at reducing opioid intake in those with chronic pain using a nurse and lay led self-management intervention with phased nurse led controlled medication reduction programme. DC is a co-applicant and member of the study management group.

TEAM trial (completion 2018): This is a randomised controlled trial looking at the effects of an anaesthetic and anti-inflammatory injection for achilles tendinopathy. DC is a member of the trial steering group.

MOBiLe initiative (initiated in 2014): This is a long term international initiative to develop and implement applicable efficient programs to facilitate age related driving cessation. PV is the initiative leader.

GARAge cohort (completion 2018): This is a longitudinal cohort study following 400 senior drivers to investigate predictors of driving cessation. PV is co-investigator.

MedDrive (completion end 2018): This is a software development program. MedDrive is a battery of neuropsychological tests that investigates functions required for spatial navigation. PV is the project leader.

PRECASIA trial (completion 2019): This is a randomised trial investigating effects of group interventions for preventing drink driving recidivism. PV is co-investigator.

IPTi Trial (until 2017): This is a nested cohort study within a large RCT to investigate the potential protective effect of anaemia on malaria infections in infants. PV is member of the study steering group.

MOVEBox (completion June 2018): Improving reliability of palpation using haptic feedback. PV is principal investigator.

PAuSES-D (completion 2019). This is a PEPA grant for exploring the use of students as caregivers to support training and learning. PV is a co-applicant.

SADYSM (completion May 2019): This is a SNF funded study about Psychometric properties of self-reported measures of problematic alcohol use (tests diagnostic). KI is principal investigator.

Health at work (completion date TBA): This is a joint project between HEdS and HEG. KI is key collaborator.

3.2.4 Funding applications

EULAR. Submitted Dec 2017. European PROMs project. DC Main applicant. Decision: pending

PePA. September 2017. Project PAuSES-D. PV co-applicant. Decision: approved for funding

Leenaards–big data. Submitted July 2017. REDIT project. PV co-applicant. Decision: pending

SNF. Submitted April 2017. The effectiveness of osteopathy for distressed, crying unsettled babies: A randomised controlled trial. Outcome: DC main applicant. Decision: rejected

H2020-MSCA-ITN-2017 Submitted Jan 2017. European EDRIIVE project. PV Co-applicant. Decision: pending

Swiss Osteopathic Foundation (FSO). September 2016. Survey of Swiss Osteopathic practice. Status: Protocol submitted. Decision: approved for funding (DC, PV).

NRP 74 Jan 2016. Submitted Jan 2016: Reducing the mental health burden of living with chronic pain. Outcome: DC main applicant. Decision: rejected

SNF April 2016. Submitted April 2016. Reducing the mental health burden of living with chronic pain: a pragmatic randomised controlled trial. Outcome: DC main applicant. Decision: rejected.

3.2.5 Conferences and presentations

2016 (external)

An occupational perspective of mobility – Seminar and Think tank. Organisation, keynote speech and moderator of discussions. Lausanne. December 2016. Paul Vaucher
Institute of Osteopathy Convention. Keynote presentation and debate: Applying research to practice. Staines, UK. Nov 2015. Dawn Carnes

Brain Awareness Week. Keynote presentation: Le cerveau au Volant – Vieillesse et conduite - quand est-ce le bon moment d'envisager des moyens de transports alternatifs? Lausanne. March 16th 2016. Paul Vaucher

American Association of Osteopaths, DO-Touch.net. Keynote presentation: Overview of evidence of adverse events in manual therapies. Florida, USA. March 16th 2016. Dawn Carnes

British School of Osteopathy: OsteoMAP conference. Presentation: An evaluation of the OsteoMAP intervention. London, UK. April 2nd 2016. Dawn Carnes

Royal College of Physicians of Ireland – Masterclass Series. Keynote presentation. Research day: Health, mobility and road safety. Driving cessation and ageing – facilitating the transfer to becoming a non-driver. Dublin, Ireland. March 2016. Paul Vaucher

Swiss Health Professional Congress. Systematic review of prospective cohort studies on the safety of manual therapy. SUPSI, Lugano. Sept 1st2nd 2016. Dawn Carnes

Swiss Health Professional Congress. Self-management of chronic pain: A pragmatic randomised controlled trial. SUPSI, Lugano. Sept 1st2nd 2016. Dawn Carnes

Swiss Health Professional Congress. Workshop: Maintaining wellbeing, social participation in home dwelling older people. SUPSI, Lugano. Sept 1st 2016. Paul Vaucher

Osteopathic International Alliance. Research Pillar convenor, chair of the international osteopathic research network (IORN) and presentation on WHO collaboration. Los Angeles, USA. Sept 18-21st 2016. Dawn Carnes

ARTORG – Clinical application of body mounted sensors – Mini-workshop. Keynote presentation. Bern. November 2016. Paul Vaucher

Colloque de recherche – Hôpital de Lavigny: Évaluer l'aptitude à la conduite – mises en garde! Lavigny. March 17th 2016. Paul Vaucher

Colloque de Recherche Semestriel PMU. Prévenir la récurrence d'alcool au Volant. Lausanne, 11th April 2017. Paul Vaucher
Swiss Federation of Osteopaths AGM. Survey of Swiss Osteopaths. Berne, April 14th 2016. Paul Vaucher, Dawn Carnes

2017 (external)

Institute of Osteopathy. London. Presentation and Workshop: Dealing with Clinical Uncertainty. Presentation and Debate: New models of thinking and research. October 2017. DC

New Zealand, Australian Osteopathic Associations and Osteopathic International Alliance Joint conference. Auckland. Formal invitation to present and chair. Embedding research into education and practice. September 2017. DC

3rd European Veterinary Society for Osteopathy Congress. Lyon. Workshop organiser. Modulation de la perception du toucher en fonction du langage corporel lors de la triangulation thérapeutique. 23rd September 2017. PV

6^{ème} colloque du Réseau Santé Nord Broye. Yverdon-les Bains. Keynote speaker. Seniors, troubles cognitifs et conduite : nouveautés dans l'évaluation et la prise en charge. 21st September 2017. PV

3rd European Veterinary Society for Osteopathy Congress. Lyon. Keynote speaker. Emerging Osteopathic Challenges from the last 15 years of research – Beyond the somatic dysfunction. 22 September 2017. PV

International Conference for Advances in Osteopathic Research. Milan. Presentation: Concerns and complaints about osteopathic practice. Chair of sessions. April 2017. DC

National Council for Osteopathic Research. London. Presentations. Helping those with chronic pain help themselves. Convener (DC). January 2017. DC and PV

Société Genevoise des Ostéopathes. Genève. Keynote speech. Ostéopathie et rationalité scientifique. January 2017. PV

Colloque de Recherche Semestriel PMU. Lausanne. Voir ou conduire, il faut choisir! 24th April 2017. PV

3.2.6 Publications

Tomi, A., Carnes, D., Homer, K., Taylor, S., Eldridge, S., Underwood, M., Rahman, A., Foell, J., Spencer, A., & Hounsoume, N. (2018). The over-prescription of opioids for chronic musculoskeletal pain in UK primary care: results from a cohort analysis of the COPERS trial. *BMJ Open*, (in press).

Carnes, D., Sohanpal, R., Frostick, C., Hull, S., Mathur, R., Netuveli, G., Tong, J., Hutt, P., & Bertotti, M. (2017). The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. *BMC Health Service Research*, 17(1), 835. doi: [10.1186/s12913-017-2778-y](https://doi.org/10.1186/s12913-017-2778-y)

Carnes, D., Plunkett, A., Ellwood, J., & Miles, C. (2018). Manual therapy for unsettled, distressed and excessively crying infants: a systematic review and meta-analyses. *BMJ Open*, 8(1). doi: [10.1136/bmjopen-2017-019040](https://doi.org/10.1136/bmjopen-2017-019040)

Bertotti, M., Frostick, C., Hutt, P., Sohanpal, R., & Carnes, D. (2017). A realist evaluation of social prescribing: an exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. *Primary Health Care Research & Development*, 1-14. doi: [10.1017/S1463423617000706](https://doi.org/10.1017/S1463423617000706)

Williams, N. H., Jenkins, A., Goulden, N., Hoare, Z., Hughes, D. A., Wood, E., Foster, N. E., Walsh, D. A., Carnes, D., Sparkes, V., Hay, E. M., Isaacs, J., Konstantinou, K., Morrissey, D., Karppinen, J., Genevay, S., & Wilkinson, C. (2017). Subcutaneous Injection of Adalimumab Trial compared with Control (SCIATiC): a randomised

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3.3 Future

3.3.1 Teaching

The teaching programme will continue to expand. Module 30 will be spread over 3 years. During Year 1 students will receive lessons from module 30: The introduction to research, searching and reading scientific literature. During Year 2 they will receive lessons about research methodology and during Year 3 they will focus on statistics and principles of systematic reviewing and they will do their BSc project (Module 36).

Students who progress to the MSc programme will receive further training in research methods, ethics and project design and write 2 evidence informed clinical case studies and design and conduct a research project.

We expect around 30 students in each year. The major resource implications are in Year 3 of the BSc and Year 1 and 2 of the MSc for project supervision. At present we have 46 students (Year 3 BSc and Year 1 MSc). This will increase to around 70 students next year (BSc Year 3 and MSc Years 1 and 2).

E-learning initiatives will continue to be explored.

3.3.2 Research

Efforts to expand the portfolio of research will continue. However for the immediate future the unit will cease to target Swiss National Funds for conducting large pragmatic trials and focus on smaller projects and apply for grants from smaller funding streams. The rationale for this is to establish a good reputation for conducting smaller but high quality research projects that have an impact on care and patients. We hope that this will provide evidence to funders of our capability and improve confidence in the HEdS musculoskeletal health care research team.

4. Report for the Unit of Complex Nursing Interventions (Cardiovascular Diseases and Cancer)

4.1 Introduction

4.1.1 Background

Since January 2017, the Unit of Complex Nursing Interventions has been initiated by joining two single research axes, i.e., Cardiovascular Health and Cancer at the HEdS-FR. The unit Complex Nursing Interventions includes the following collaborators: Petra Schäfer-Keller, Gabrielle Santos, Marika Bana, Marie-Elise Verga and Josepha Pasche.

Petra Schäfer-Keller, nurse PhD, has been employed at 72% in 2017 and during 2016 30% (1.1.-31.3.2016) and 50% 1.4-31.12.2016) respectively. She is responsible for the research unit and leads CINACARD.

She has been initially trained as a registered nurse, then earned her PhD in 2009 from the University of Basel's medical faculty, with a dissertation on self-management in renal transplant recipients (medication adherence, its measurement and interventions) employing multiple methods. As an advanced practice nurse, her clinical experience encompassed medication adherence support for renal transplant recipients visiting the University Hospital Basel outpatient department. Later, she took charge of nurse-led care in Aarau Cantonal Hospital's department of internal medicine. At the end of 2013, she joined the University of Applied Sciences and Arts Western Switzerland–School of Health Sciences, Fribourg, where she has developed collaboration with the Fribourg Cantonal Hospital and started CINACARD, a research program to develop and evaluate a nurse-led clinic for adults with heart failure (HF). The development phase included a needs assessment involving HF healthcare professionals and individuals with HF, with data collection for the latter having been completed in December 2017. Having composed a related complex evidence-based intervention, she hopes to retrieve funding to start piloting and feasibility testing in May 2018.

Gabrielle Santos, nurse MScN, has been employed as research assistant at 50% 2016 and 2017, with a maternity leave between March and September 2016.

She is a registered nurse who earned her masters degree in 2012 from the University of Lausanne's Institute of nursing education and research (IUFERS). Since 2006, she has worked as a nurse in internal medicine of the Lausanne University Hospital (CHUV). She joined Dr. Schäfer's team as a research assistant during 2015, and began her doctoral studies in September 2016. Her doctoral work, directed by Dr Schäfer, focuses specifically on symptom perception in older individuals with HF and takes part at the IUFERS.

Marika Bana, nurse MScN, has been employed as research assistant at 50% (January to August 2016) and at 80% since September 2016.

She is a registered nurse who earned her masters degree in 2014 from University of Applied Science Zurich. Since 2010 she has been responsible for the MAS in oncology, a postgradual program at the University of Applied Sciences Zurich, Institute of Health Sciences. She joined the aR&D CANCER research axe at the HEdS-FR by January 2016 and assumed its responsibility after the former head of the research axe CANCER had left the HEdS-FR (in June 2016). She began her doctoral studies in March 2016, which take place at the IUFERS under the supervision of Prof. Manuela Eicher. Her doctoral work evaluates the implementation of the Symptom Navi© Program facilitating self-management of symptoms in cancer patients. She also leads CINA-CANCER, a nurse-consultation service of the academic clinical partnership between the HEdS-FR and HFR, in co-leadership with a nurse from the HFR.

Marie-Elise Verga, nurse MScN, has been employed as research assistant at 10% in May 2017.

She is a registered nurse who earned her masters degree in 2016 at the IUFRS. Since the end of 2016 she has worked as lecturer at the HEdS-FR postgradual education unit and has joined Dr. Schäfer's team as research assistant in May 2017. She has been contributing to CINACARD in the recruitment and data collection of the needs assessment within CINACARD and will be instrumental in the UTILE, the multiple methods pilot-RCT planned to start in 2018, in the recruitment and data collection (i.e., the quantitative part of UTILE).

Josepha Pasche, nurse MScN, has joined the team in September 2017 at 50%. She contributes to CINACARD, and more particularly will be instrumental in UTILE (start in 2018), the planned multiple methods pilot-RCT within CINACARD, in its preparation and conducting of the semi-structured interviews with the UTILE's intervention group patients and all participating health care professionals (i.e., the qualitative part of UTILE).

The unit offered following **additional positions** ("mandats/Mandate"), a **research internship** ("stage de recherche") and a **civilian service project** ("projet civiliste"), all contributing to the needs assessment in individuals with HF within CINACARD:

04-09/2016: **Stefanie Senn**, nurse MScN, lecturer at HEdS-FR: she has tested the German Versions of the Self-Care of Heart Failure Index; M.D.-Anderson Symptom Inventory - Heart Failure; and the Heart Failure Needs Assessment Questionnaire in a sample of eight German speaking patients with HF using cognitive debriefing. Her work contributed to the cross-cultural adaptation of these instruments, which then were used in the needs assessment of German speaking individuals with HF.

05/2016-04/2017: **Fernando Manuel Correia Pinto Santana**, nurse MScN, lecturer at HEdS-FR: he has contributed to patient recruitment and data collection.

04-09/2016: **Alain Verdon**, nurse MScN, nurse at HFR (until 08/2016) and then lecturer at HEdS-FR (up from 09/2016): he has contributed to patient recruitment and data collection.

07-12/2016: **Sandra Pillonel**, nurse HFR: she has contributed to patient recruitment and data collection of 60 German speaking patients. She conducts her master thesis using data of 150 patients with HF of the needs assessment study, and has additionally contributed about 16 hours (non-paid hours) to the transcription of data at the end of 2017.

05-12/2017: **Sylvie Baeriswyl**, lecturer HEdS-FR: she has contributed to patient recruitment and data collection.

05-12/2017, **Jean-Michel Rossier**, lecturer HEdS-FR: he has contributed to patient recruitment and data collection.

09/2017-06/2018: **Grégoire Menoud**, lecturer HEdS-FR and Master student at IUFRS; he contributes to data collection and to data cleaning and management within a research internship to earn 5 credit points.

07/-09/2017: Nathan Quinteiro Quintas, Master student in informatics at EPFL, University of Lausanne; he realized a computerized tool to assess symptoms and health status in individuals with Heart Failure in collaboration with Dr. Petra Schäfer (non-paid, project realized within his civilian service, supervised by Dr Francesco Carrino and Jacky Casas, HEIA).

The following collaborators of the HEdS-FR are included in CINA-CANCER:

Christine Sager Tinguely, nurse MScN, lecturer at HEdS-FR: works 20% for CINA-CANCER delivering nurse-consultations at the oncology ambulatory at the HFR.

Romy Schmidhäusler, nurse MScN, lecturer at HEdS-FR: works 10% for CINA-CANCER delivering nurse-consultations at the oncology ambulatory at the HFR.

4.1.2 Aims and objectives of unit

The unit's research aims are for the Cardiovascular Health focus to develop and evaluate a nurse-led clinic for the multidisciplinary follow-up of patients with Heart Failure that contributes to improved patient reported and clinical outcomes and is complementary to already existing services in Heart Failure; and for the Cancer focus to support the self-management of patients with cancer.

Specific objectives include:

1. to continue the research program CINACARD and to conduct the research studies within the doctoral work SYMPERHEART and Symptom Navi© Pilot Study
2. to contribute to the teaching program at the HEdS-FR
3. to foster the academic clinical practice partnership HEdS-FR – HFR.

4.2 Achievements

4.2.1 Teaching

BSc School of Nursing

All the planned teaching activities have been accomplished.

We have been teaching the German cohorts in scientific writing (M22, Bachelorthesis) using a "writing class format" to the traditional teaching (Petra Schäfer), have been teaching the French speaking cohorts in statistics (M11, research methods) together with Sandrine Pihet (Gabrielle Santos), and have been teaching Symptom management in oncology nursing (M9, Pflegen in der Onkologie) in 2016 and 2017 (Marika Bana). Additionally, lectures were given using problem based learning regarding breast cancer in 2017 (Marika Bana).

HES-SO postgraduate program

The teaching in the CAS-ISS (Certificate of advanced studies, integration of scientific knowledge) has been given as planned and the co-responsibility (M3) has been assumed as foreseen (Petra Schäfer).

Additionally, lectures were given in the CAS en soins de cardiologie (Certificate of advanced studies, care in cardiology) in Nov 2017 (Petra Schäfer and Marie-Elise Verga).

Teaching activities at NDS St Gallen and ZHAW At the post-gradual education for oncology nurses (NDS) courses in St. Gallen, the following themes has been lectured: "study interpretation", "genetics for nurses", and "cancer prevention" (2016 and 2017, Marika Bana). At the ZHAW in Winterthur the following themes has been lectured for the MAS in Oncology Nursing: "Strukturierte und umfassende Anamnese" embedded in the modul "Klinisches Assessment in Onkologischer Pflege"; and the theme "Onkologische Pflege" for the modul "Intervention & Outcomes" for the MScN formation at the ZHAW (both in 2017, Marika Bana).

Supervision of students

We have supervised seven BSc students in their Bachelorthesis, three Msc students and one PhD student. One MSc student in Osteopathy has been supported for defining the thesis subject.

Bachelorthesis:

Karen Sturny and Sybille Vonlanthen (2017): Welche E-Health Interventionen verbessern das Symptommanagement bei älteren Menschen mit einer Herzinsuffizienz? (supervisor: Petra Schäfer)

Caroline Vogt and Charlotte Bertrand (2017-2018): Förderung der Entscheidungsfindung bei der Selbstpflege von Herzinsuffizienten Patienten: Eine Literaturübersicht (supervisor: Petra Schäfer).

Mélanie Béguelin, Lorraine Bovet et Kelly Tschann (2017-2018): Intégration des proches-aidants d'un patient atteint d'insuffisance cardiaque chronique, dans la pratique des auto-soins, plus particulièrement dans la perception des symptômes : une revue non-systématique de la littérature (supervisor : Gabrielle Santos)

Masterthesis:

Fernando Manuel Correia Pinto Santana (2017): Les auto-soins des patients atteints d'une insuffisance cardiaque : étude descriptive corrélationnelle (thèse de maîtrise inédite). Université de Lausanne, Suisse (co-supervisor : Petra Schäfer).

Alain Adrian Verdon (2017) : Les symptômes chez les patients atteints d'insuffisance cardiaque : une étude descriptive corrélationnelle. Université de Lausanne, Suisse (co-supervisor : Petra Schäfer).

Sandra Pillonel-Brügger (2016 to present) : Les auto-soins des patients insuffisants cardiaques : y-a-t-il une différence entre le niveau d'auto-soins des patients insuffisants cardiaques germanophones et francophones du canton de Fribourg ? IUFERS, Université de Lausanne (supervisor : Petra Schäfer)

Doctoral thesis:

Gabrielle Santos (2016 to present): Symptom perception in persons living with heart failure: a nursing intervention to enhance self-care of older adults (SYMPERHEART). Doctoral thesis at the University of Lausanne, faculty of biology and medicine, doctoral school. (supervisor: Petra Schäfer since 06/2017, before co-supervisor).

4.2.2 Collaborations and networking

Academic clinical partnership HEdS-FR & HFR: collaboration with oncology and lead in nursing consultation service CINA-CANCER (Marika Bana); collaboration with cardiology and nurse leadership HFR (Petra Schäfer, Gabrielle Santos)

International collaborations, two research visits have been organized and conducted within CINACARD, one to visit the nurse-led clinic at the Linköping University Hospital of Professor Anna Strömberg, Professor of Nursing Science at Department of Nursing, Department of medical and health sciences, Linköping University, Sweden (Petra Schäfer, Gabrielle Santos, Krystel Vasserot HFR, Frédérique Hériché HFR and Sandra Pillonel HFR), and one to visit Professor David Richards Professor of mental health services research and NIHR senior investigator, University of Exeter medical school, UK and team as well as Professor Rod Taylor and the REACH study team (Petra Schäfer and Gabrielle Santos).

Further international collaboration have been initiated in 2017, with Dr. Maria Liljeroos (Department of Medicine and Health Sciences, Linköping University, Linköping & Centre for Clinical Research Sörmland, Uppsala University, Eskilstuna; Sweden) to participate as second reviewer in a scoping review about symptom perception in HF conducted in Gabrielle Santos' doctoral work.

Institute of nursing education and research, IUFRS, Lausanne University, actions have been undertaken to support the continuation of the doctoral thesis of Gabrielle Santos after the departure of Professor Andrew Dwyer, the thesis' supervisor from September 2016 to June 2017 (Petra Schäfer, Gabrielle Santos).

School of Engineering and Architecture of Fribourg Switzerland, HES-SO, Haute école d'Ingénierie et d'architecture Fribourg (HEIA), collaboration to develop a computerized tool to assess symptoms and health status in individuals with HF, civilian service project in 2017 (Petra Schäfer, Gabrielle Santos).

AFG Kardiovaskuläre Pflege (Academic Association of Cardiovascular Nursing) of Switzerland's Verein zur Förderung der Pflegewissenschaft (VfP, Society for the Promotion of Nursing): contribution as a member of the group and collaboration within the preparation of the scientific program of the nursing day of the annual meeting of the Swiss Society of Cardiology (Petra Schäfer).

Working Group on Cardiovascular Nursing and Therapies of the Swiss Society of Cardiology: contribution as a member by participation at the meetings (Petra Schäfer).

Stiftung Pflegewissenschaft Schweiz, Scientific Board contribution to the evaluation of grant proposals (Petra Schäfer)

Collaborations within the doctoral thesis of Gabrielle Santos: the dissertation commission has been established including Professor Dr. Roger Hullin (co-supervisor), Professor Dr. Iren Bischofberger (committee member and committee President), and Professor Dr. Odette Doyon (committee member).

Collaboration within the doctoral thesis of Marika Bana: the dissertation committee consists of Professor Dr. med. Solange Peters (CHUV), Dr. rer. medic. Patrick Jahn (Universitätsklinikum Witten Halle), Dr. sc. (ETH) Susanne Hoffmann (Universitätsklinik Bonn, Institut für Patientensicherheit). Professor Tanja Manser (Universitätsklinik Bonn, Institut für Patientensicherheit). Dr. Antje Koller (Universität Wien, Institut für Pflegewissenschaft) additionally supervises the dissertation project.

Academic Association of Oncology Nursing (part of the Swiss Association for Nursing Science): Marika Bana is co-president of the AFG Onkologiepflege together with Dr. Andrea Serena (PhD, CHUV). Collaboration with the Swiss Oncology Nursing Society (Onkologiepflege Schweiz) and its president Irène Bachmann-Mettler for evaluating submitted abstract for the "best poster price" at the oncology nursing congress in Bern.

Mandat: Schäfer-Keller P. und Schorro E. (2016). Schaffhauser Spitäler - Begleitung Einführung Pflegegeleitete Betreuung.

4.2.3 Current Research Projects

The prevalence of and relationships between complex needs, self-care, health care utilization and vulnerable profiles in individuals with heart failure: a cross-sectional study (07/2015-12/2017): This is a cross-sectional study assessing complex needs and self-care in a sample of 308 individuals with heart failure in Fribourg. Petra Schäfer-Keller is the principal investigator of the study, Gabrielle Santos and Marie-Elise Verga are collaborators. Additionally, further persons have contributed during a predetermined time (for complete list of names, see section on additional positions).

The role of Heart Failure Nurses in Switzerland: a survey (2017, ongoing): Petra Schäfer is the principal investigator and Josepha Pasche is a collaborator.

The test-retest reliability of the French (for Switzerland) version of the Self Care of Heart Failure Index (SCHFI) in a sample of Swiss heart failure patients (2017, ongoing). This is an observational longitudinal study to assess the test-retest reliability of the SCHFI with two test-retest measures in two different settings, once at hospital and once at home after hospital discharge. Directed by Dr. Schäfer, Gabrielle Santos is the principal investigator and Marie-Elise Verga is a collaborator. Additionally, further persons have contributed during a predetermined time (for complete list of names, see section on additional positions).

Symptom perception in HF determinants, instruments, interventions and outcomes: a scoping review (2017, ongoing). This is a scoping review aiming at mapping state-of-the-art literature about symptom perception in HF. It will underpin the development of a complex intervention supporting symptom perception in HF. Directed by Dr. Petra Schäfer, Gabrielle Santos is the first reviewer and author and Dr. Maria Liljeroos is the second reviewer and author of this scoping review.

Pilot testing the effectiveness of the Symptom Navi© Program in Swiss cancer outpatient units in a cluster randomized design (2017, ongoing). This implementation research project (part of the Symptom Navi© Pilot Study) evaluates three objectives: 1) testing preliminary effectiveness of the Symptom Navi© Program, 2) evaluating nurses' fidelity to the training manual, and 3) exploring a larger study's feasibility by investigating patients' accrual and retention rates.

Research projects in preparation

Nurse-facilitated multidisciplinary follow-up care in Heart Failure (UTILE): a pilot randomized controlled study. "Nurse-facilitated" soins multidisciplinaires pour le suivi des personnes adultes avec insuffisance cardiaque (French). This is a multiple methods pilot RCT to test the feasibility and provide information to inform the design of a fully powered RCT investigating the effectiveness of nurse-facilitated multidisciplinary HF follow-up care for adults with HF in Switzerland. Petra Schäfer is the principal investigator of this study and Josepha Pasche and Marie-Elise Verga are collaborators. Additionally, Gabrielle Santos, Monika Walter (lecturer at HEdS-FR), Sylvie Baeriswyl (lecturer at HEdS-FR) and Sandra Pillonel (HFR) will be involved in this study as nurses delivering the interventions.

4.2.4 Funding applications

Stiftung Pflegewissenschaft Schweiz (submitted 2015, funding retrieved 2016, ongoing) The prevalence of and relationships between complex needs, self-care, health care utilization and vulnerable profiles in individuals with heart failure: a cross-sectional study: 166'000 CHF: Stiftung Pflegewissenschaft Schweiz; University of Applied Science and Arts Western Switzerland (HES-SO). Petra Schäfer was the principal applicant and Gabrielle Santos was a collaborator.

swissuniversities – P11. (submission 12/2016). Développement, Implémentation et Évaluation du Double Profil de Compétences des Infirmières de Pratique Avancée (DOUP-IPA) : Un programme pilote dans le cadre du projet CINACARD. Petra Schäfer was the principal applicant and Gabrielle Santos a collaborator. Rejected.

Swiss Heart Foundation (submitted 06/2017). Nurse-facilitated multidisciplinary follow-up care in Heart Failure (UTILE): a pilot randomized controlled study. "Nurse-facilitated" soins multidisciplinaires pour le suivi des personnes adultes avec insuffisance cardiaque (French). Petra Schäfer was the principal applicant. Rejected.

Stiftung Pflegewissenschaft Schweiz (submitted 12/2017). Nurse-facilitated multidisciplinary follow-up care in Heart Failure (UTILE): a pilot randomized controlled trial. Petra Schäfer is the principal applicant. 56'870 CHF.

Fonds Scientifique Cardiovasculaire (Novartis) (submission in preparation). Nurse-facilitated multidisciplinary follow-up care in Heart Failure (UTILE): a pilot randomized controlled trial. Petra Schäfer is the principal applicant. 54'582.50 CHF.

Stiftung Lehre und Forschung Lindenhof (submitted 12/2016): Symptom Navi© Pilot Study. Prof. Manuela Eicher was principal applicant and Marika Bana collaborator. Rejected.

Stiftung Pflegewissenschaft Schweiz (submitted 08/2017): Implementation of the Symptom Navi© Program for cancer patients in ambulatory services: A cluster-randomized pilot study (Symptom Navi© Pilot Study). Prof. Manuela Eicher was principal applicant and Marika Bana collaborator. Rejected.

Stiftung Lehre und Forschung Lindenhof (submitted 12/2017): Pilot testing the effectiveness and safety of the Symptom Navi© Program in Swiss cancer outpatient units in a cluster randomized design (Part of Symptom Navi© Pilot Study). Prof. Manuela Eicher is principal applicant and Marika Bana collaborator.

4.2.5 Conferences and presentations

Joint annual meeting : Société Suisse de Cardiologie (SSC), Société Suisse de Chirurgie Cardiaque et vasculaire thoracique (SSCC), Société Suisse de Pneumologie (SSP). Oral presentation. The prevalence of and relationships between complex needs, self-care, healthcare utilization and vulnerable profiles in individuals with heart failure: preliminary results of an ongoing cross-sectional study. SwissTech Convention Center Lausanne, Écublens, Suisse. 15-17 juin 2016. Schäfer-Keller, P., Santos, G., Vasserot, K., Augereau, C., Villeneuve, H., Raccanello, O., Graf, D., Aubort, N., Vona, M., Moses Passini, C., Richards, D., & Strömberg, A.

Swiss Congress for Health Professions (SCHP). Oral presentation. Development of a Nurse-led Clinic for individuals living with Heart Failure: Preliminary results of an ongoing multi-methods study. SUPSI, Lugano, Switzerland. Sept 1st-2nd 2016. Schäfer-Keller, P., Santos, G., Vasserot, K., Augereau, C., Villeneuve, H., Raccanello, O., Graf, D., Aubort, N., Vona, M., Richards, D., & Strömberg, A.

6^{ème} Journée Fribourgeoise de Cardiologie. Oral presentation. Développement d'une Consultation Infirmière pour des adultes avec une Insuffisance Cardiaque (CINACARD): Résultats préliminaires d'un projet de méthodes multiples en cours. Fribourg. 17 novembre 2016. Schäfer-Keller, P., Santos, G., Vasserot, K., Augereau, C., Villeneuve, H., Raccanello, O., Graf, D., Aubort, N., Vona, M., Denhaerynck, K., Richards, D. R., & Strömberg, A.

Forum Recherche de la Haute école de santé Fribourg. IPA (Infirmière de Pratique Avancée) – un rôle infirmier d'avenir ? Expérience concrète dans une équipe spécialisée dans le cancer du poumon au CHUV. 26 janvier 2017. Serena A.

Joint seminar hosted by the Complex Interventions & Cardiac Rehabilitation Research Groups, University of Exeter, Medical School, Institute of Health Research. Invited oral presentation. Issues to consider when moving from development to pilot testing in complex interventions: an example of a nurse-led clinic for individuals with Heart Failure in Switzerland. Exeter, UK. 24th April 2017. Schäfer-Keller, P., & Santos, G.

Forum Recherche de la Haute école de santé Fribourg. Les auto-soins chez les personnes atteintes d'insuffisance cardiaque (IC): signification et pertinence (French). Selbstpflege bei Herzinsuffizienz: Bedeutung und Relevanz (German). 7 septembre 2017. Schäfer-Keller, P., & Vasserot, K.

Herzinsuffizienz 2017 – Dreiländertreffen. Selbstpflege bei Herzinsuffizienz: Bedeutung und Relevanz. Oral presentation. Thun, Switzerland. 22. September 2017. Schäfer-Keller, P.

Pôle clinique HFR. CINACARD: Le développement et l'évaluation d'une consultation infirmière pour des adultes avec une insuffisance cardiaque (French). CINACARD: the development and evaluation of a nurse-led clinic. Fribourg. 7 décembre 2017. Schäfer-Keller, P., & Santos, G.

3rd Annual Doctoral Student Research Day (Swiss PhD in Nursing Science Education (SPINE)). Oral presentation. Symptom perception in persons living with heart failure: a nursing intervention to support self-care of older adults (SYMPERHEART). Kollegienhaus, Basel, Switzerland. 7th November 2017. Santos, G., Hullin, R., & Schäfer-Keller, P.

5th Swiss Symposium on Health Services Research of the Swiss Academy of Medical Sciences. Poster. Development of a nursing care performance measuring system at CHUV. Bern, Switzerland. 1st March 2017. Rapin, J., Mabire, C., D'Amour, D., Santos, G., Adatte, V., Penseyres, T., Jacquat, B., Junger, A., & Lehn, I.

Journée soins du CHUV. Poster. La compression veineuse: une pratique interdisciplinaire. Lausanne, Suisse. 24 janvier 2017. Bas, J., Novel, B., Santos, G., Scascighini, C.

Swiss PhD in Nursing Science Education (SPINE) doctoral day at the IUFRS. Oral presentation. Implementation of the Symptom Navi© Program for cancer patients in ambulatory services: A cluster-randomized pilot study. Lausanne, Switzerland. November 2016. Bana, M., Peters, S., & Eicher M.

3rd Annual Doctoral Student Research Day (Swiss PhD in Nursing Science Education (SPINE)). Poster. Symptom Navi© Program: development of a nurse-led symptom self-management support for cancer patients. Kollegienhaus, Basel, Switzerland. 7th November 2017. Bana, M., Eicher, M., Peters, S., Jahn, P., Hoffmann, S., & Symptom Navi© Programm Steuerguppe.

Forum Recherche de la Haute école de santé Fribourg. Pflegekonsultationen für ambulante onkologische Patient-inn-en, Akademie (HEdS-FR) und Praxis (HFR) gemeinsam unterwegs. Fribourg. 2. November 2017. Bana, M., & Sager Tinguely, C.

Séminaire de l'association «Réseau Evivo». Oral presentation. Premières réflexions et conclusions sur Evivo. Lausanne, Suisse. March 2016. Eicher, M., & Haslbeck, J.

Frühjahrstagung 2016 der Österreichischen Gesellschaft für Hämatologie & Medizinische Onkologie und der Arbeitsgemeinschaft hämatologischer und onkologischer Pflegepersonen in Österreich (OeGHO & AHOP). Oral presentation. Resilienz und Krebs: was Onkologiepflegende wissen sollten. Wien, Österreich. 17.-19. März 2016. Eicher, M.

Jahrestagung Onkologiepflege Schweiz. Oral presentation. Smarte APPs für Menschen mit Krebs? Bern, Schweiz. 17. März 2016. Eicher, M.

Congrès Soins en Oncologie Suisse. Oral presentation. Dotation infirmière et qualité des soins : Les soins en oncologie au carrefour des enjeux. Berne, Suisse. 17 mars 2016. Eicher, M.

Kongress für Gesundheitsberufe „Interprofessionalität – Realität oder Mythos?“. Oral presentation. Interprofessionelle „Supportive Care“ für Krebspatienten während der ambulanten Chemotherapie: Entwicklung und Testung einer Intervention.

Inselspital, Bern, Schweiz. 4.-5. März 2016. Eicher, M., Ribi, K., Dubey, C., Szüts, N., Ballabeni, P., & Betticher, D.

10th European Oncology Nursing Society (EONS) Congress. Poster. Development of the Symptom Navi©APP to support symptom self-management: Results of a usability test with professionals and patients. Poster. Dublin, Ireland. 17-18th October 2016. Sailer Schramm, M., Kropf-Staub, S., Carrino, F., Mugellini, E., Zürcher, S., & Eicher, M.

10th European Oncology Nursing Society (EONS) Congress. Poster. Is the content of the Symptom Navi© valid to support symptom self-management of cancer patients? Poster. Dublin, Ireland. 17-18th October 2016. Sailer Schramm, M., Kropf-Staub, S., Näf, E., Küng, M., Bühler, S., Studer, C., Margulies, A., Bachmann, I., Zürcher, S., & Eicher, M.

17th World Conference on Lung Cancer of the International Association for the Study of Lung Cancer (IASLC). Oral presentation. Acceptability of an Advanced Practice Nurse in Lung Cancer by Health Professionals and Patients: A Qualitative Exploration. Vienna, Austria. 4-7th December 2016. Serena, A., Dwyer, A., & Eicher, M.

World Congress of the International Society of Nurses in Genetics. Poster. Family Support in Young Breast Cancer Survivors Randomly Recruited From a State-Wide Cancer Registry and At-Risk Relatives: A Secondary Data Analysis. Dublin, Ireland. August 2016. Schmidt, F., Nikolaidis, C., Eicher, M., Mendelsohn-Victor, K., Northouse, L., Katapodi, M.

4.2.6 Publications

Conca, A., Prins, M., Schuetz, P., Haubitz, S., Regez, K., **Schäfer-Keller, P.**, Ebrahim, D., Noack, S., Keller, A., & Hari, M. (2018). Screening by social workers medical patients with risk of post-acute care needs: a stepped wedge cluster randomized trial / Evaluation eines Screenings durch Sozialarbeiter bei medizinischen Patienten mit einem Risiko für post akuten Nachsorgbedarf: eine stepped wedge clusterrandomisierte Studie (German). *International Journal of Health Professions*, (accepted for publication on December 22, 2017).

Wenke-Zobler, J., Brunner, C., **Schäfer-Keller, P.**, Reutlinger, B., De Geest, S., Schubert, M., Regez, K., Schütz, P., Müller, B., & Conca, A. (2017). Verbessert eine pflegegeleitete Versorgung die Selbstpflegefähigkeiten? Eine quasi-experimentelle Studie. *Klinische Pflegeforschung*, 3, 48-60. doi: [10.6094/KlinPflgeg.3.48](https://doi.org/10.6094/KlinPflgeg.3.48)

Rapin, J., D'Amour, D., Penseyres, T., **Santos, G.**, Adatte, V., Lehn, I., & Mabire, C. (2017). Développement d'un système de gestion de la performance des soins dans un centre hospitalier universitaire suisse. *Recherche en soins infirmiers*, 131(4), 61-70. doi: [10.3917/rsi.131.0061](https://doi.org/10.3917/rsi.131.0061)

Rapin, J., D'Amour, D., Penseyres, T., **Santos, G.**, Adatte, V., Lehn, I., & Mabire, C. (2017). Développement d'un système de gestion de la performance des soins dans un centre hospitalier universitaire suisse *Recherche en soins infirmiers*, 131(sous presse).

Correia Pinto Santana, F. M. (2017). *Les auto-soins des patients atteints d'une insuffisance cardiaque : étude descriptive corrélative (French). Self-care in HF: a cross-sectional study.* Master in Nursing Science, Université de Lausanne (Faculté de biologie et de médecine, Ecole de médecine) et Haute école spécialisée de Suisse occidentale (HES-SO, Domaine santé), Lausanne.

Verdon, A. (2017). *Les symptômes chez les patients atteints d'insuffisance cardiaque: une étude descriptive corrélationnelle (French). Symptoms in patients with Heart Failure: a cross-sectional study.* Master in Nursing Science, Université de Lausanne (Faculté de biologie et de médecine, Ecole de médecine) et Haute école spécialisée de Suisse occidentale (HES-SO, Domaine santé), Lausanne.

Eicher, M., Bana, M., Spichiger, E., Shaha, M., Senn, B., & Katapodi, M. (2016). Krebsforschung in der Schweiz : Aktuelle Entwicklungen in der Pflege. *Krebsbulletin*, 36(2), 136-139.

Kurth, E., Krahenbuhl, K., **Eicher, M.**, Rodmann, S., Folmli, L., Conzelmann, C., & Zemp, E. (2016). Safe start at home: what parents of newborns need after early discharge from hospital - a focus group study. *BMC Health Services Research*, 16(1), 82. doi: [10.1186/s12913-016-1300-2](https://doi.org/10.1186/s12913-016-1300-2)

Matzka, M., Mayer, H., Kock-Hodi, S., **Moses-Passini, C., Dubey, C.,** Jahn, P., Schneeweiss, S., & **Eicher, M.** (2016). Relationship between Resilience, Psychological Distress and Physical Activity in Cancer Patients: A Cross-Sectional Observation Study. *PLoS one*, 11(4), e0154496. doi: [10.1371/journal.pone.0154496](https://doi.org/10.1371/journal.pone.0154496)

4.3 Future

4.3.1 Teaching

We will continue with our teaching in the BSc Nursing Science programme and by supervising students. We continue our engagement in lecturing and contributing significantly to the BSc Nursing Science Programme according to our expertise. Additionally, we see the investment in supervising students, at all levels, including BSc, MSc and PhD student as relevant to investing in our young academic and finally in the nursing profession.

Also, we will continue our teaching at the school's post gradual programmes as well as in other institutions. This will provide opportunities for further fostering the nursing profession and provide opportunities for important networking.

4.3.2 Research

UTILE. Petra Schäfer's next study within CINACARD is expected to be realized in 2018, if funding will be obtained. With this pilot study, the CINACARD's research program enters the field of clinical trials; it moreover proposes an intervention based on European Society of Cardiology guidelines enhancing the current contribution of nurses to the multidisciplinary follow-up care of individuals with HF in our setting. If the results of this study provide evidence, that a fully powered RCT may be feasible and the proposed intervention is accepted by patients as well as health care professionals, then, this study opens up a subsequent RCT that uses an intervention that is a) based on state of the art knowledge, proposes a collaboration between physicians and nurses that differs from current clinical care, and c) combines treatment and patient (self-care) support in a clinically meaningful way with the potential to make a difference for patients in our setting.

SYMPERHEART. Gabrielle Santos' dissertation and related studies are expected to go on after the intermediate evaluation of the dissertation that will take place at the beginning of 2018. Early in 2018, a particular effort will be undertaken to obtain funding from the Stiftung Pflegewissenschaft Schweiz, Nachwuchsförderung, for the doctoral work. Current studies (SCHFI's test-retest reliability and scoping review about symptom

perception) are planned to end in 2018, with two articles submitted to international Journals. Then, the third dissertation research project will be fully developed and conducted (working title: A nursing intervention to support symptom perception in older heart failure adults: a mixed methods pilot study, 2019-2020).

Symptom Navi© Program: Marika Bana's dissertation project is part of the Symptom Navi© Pilot study led by Prof. Manuela Eicher. For 2018 patient recruitment and data gathering will be continued at nine participating cancer outpatient centers. We expect that data gathering will be completed by the end of 2018. Further, it is planned to draft two publications in 2018, and we aim to submit a first publication at the European Journal of Oncology Nursing. For funding, the decision on the submission at the Lindenhofstiftung is still under evaluation at the moment of this report. We plan to submit for additional funding at the Krebsliga Bern and will take into account next steps depending on the acceptance or rejection of the Lindenhofstiftung. The defense of the doctoral thesis is planned to take place in 2019.