


Title	Understanding and improving patient engagement in self-management behaviour through virtual nursing interventions for diabetes in inpatient and outpatient clinics: a development and feasibility study Short form: Patient engagement through virtual nursing interventions (PIA-VIR)
Acronym	PIAVIR  PIAVIR Pratique infirmière avancée virtuelle Virtual advanced nursing practice
Acronym	PIAVIR
Status (Begin-End)	Fall 2021 – Summer 2024
Principal investigator (Institution)	<ul style="list-style-type: none"> • Claudia Huber, School of Health Sciences Fribourg, HES-SO University of Applied Sciences and Arts of Western Switzerland (https://www.heds-fr.ch/huber-claudia/)
Collaborator	<ul style="list-style-type: none"> • Selma Riedo, School of Health Sciences Fribourg, HES-SO University of Applied Sciences and Arts of Western Switzerland (http://www.heds-fr.ch/)
Collaboration/Partnership	<ul style="list-style-type: none"> • Diabetes Research Group of the Florence Nightingale Faculty of Nursing, Midwifery and Palliative Care of King's College London (Prof Angus Forbes) (https://www.kcl.ac.uk/nmpc/research) • HES-SO Valais, Institute of Information Systems, University of Applied Sciences and Arts of Western Switzerland (https://www.hevs.ch/fr/recherche-appliquee-et-developpement-a-la-hes-so-valais-wallis/institut-informatique-valais/) • Hôpitaux Universitaires de Genève (HUG), Service d'endocrinologie, diabétologie, nutrition et éducation thérapeutique du patient (www.hug.ch/endocrinologie-diabetologie-et-nutrition)
Fieldpartner	<ul style="list-style-type: none"> • HFR Fribourg, Hôpital cantonal, Fribourg, www.h-fr.ch
Funding (Funding partner)	<ul style="list-style-type: none"> • FNS «Practice-to-Science» grant (http://www.snf.ch/fr/encouragement/carrieres/practice-to-science/Pages/default.aspx)
Abstract	<p>People with diabetes, a common chronic metabolic disease, are at increased risk of premature mortality, disability, diabetes-related micro- and macrovascular complications and impaired health conditions. These increased risks pose major challenges on the individuals and their families and places a significant economic burden on healthcare systems. Self-management education and support – an often-underused care resource – can help people with diabetes to make informed decisions that enable them to better cope with the demands of disease treatment and with the challenges of living with diabetes. There is a strong evidence that promoting patient engagements in self-management behaviour can improve their health outcomes; however, the use of virtual nursing environments is under explored.</p> <p>Aims: The aims of the study are to develop a virtual nursing intervention with nurses and patients, to test the feasibility of the intervention (acceptance, implementability, recruitment and completion) and to estimate its efficacy in relation to metabolic and psychosocial outcomes.</p> <p>Setting: Diabetes inpatient and outpatient clinics</p> <p>Populations: 1) patients with diabetes (type 1 and type 2, aged over 18 years) and 2) nurses working in diabetes inpatient and outpatient clinics</p>

	<p>Methods: The study will follow the initial two phases of the Medical Research Council (MRC) framework of developing and evaluating complex interventions using a qualitative approach in the development phase and a feasibility randomised controlled trial (waiting-list design) in the evaluation phase. The first study phase will recruit 20 participants (10 patients, 10 nurses) to actively participate in co-designing a virtual self-management intervention that can be used in diabetes inpatient and outpatient clinics. The second study phase will randomly assign 60 patients to either the virtual nursing intervention group or the waiting-list control and evaluate outcomes at 6 months. At this point, the waiting-list participants will be offered to participate in the virtual nursing intervention, with evaluation of outcomes at 12 months (post-randomisation), and follow-up at 12 months for the intervention arm and at 18 months for the control arm post-randomisation.</p> <p>Impact: The study will deliver a co-designed intervention by both patients and nurses to enable people with diabetes to engage more constructively in self-management behaviour and to improve their health outcomes. The study will provide an in-depth understanding of how to implement a virtual nursing intervention into wider healthcare practice. Effective implementation of virtual nursing interventions has the potential to ease the negative health outcomes of diabetes on patients, their families and broader society.</p> <p>Two collaboration agreements have been concluded for the implementation of this study.</p> <p>The Hôpital fribourgeois, Fribourg site, is committed as a field partner for the development and testing of the feasibility of the nursing intervention.</p> <p>The University Hospitals of Geneva (HUG), Department of Endocrinology, Diabetology, Nutrition and Therapeutic Patient Education, is collaborating on the sub-project "VACAPS-48: Validation and adaptation of 48 video capsules". The HUG is providing the investigator with educational video vignettes related to type 1 diabetes, developed and produced by Dr. Giacomo Gastaldi and his team. The agreement reached concerns the adaptation, development and validation of equivalent material for type 2 diabetes.</p>
Contact	<ul style="list-style-type: none"> • Claudia.Huber@hefr.ch • +41 26 429 61 30
Dissemination (Publications, Conferences)	<ul style="list-style-type: none"> • Will come later