

Summary of the PhD Dissertation

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Curriculum Vitae

Marika Bana, PhD RN, is a researcher, lecturer, and clinical nurse specialist for oncology nursing (MAS in Oncological Care) at the University of Applied Science and Arts Western Switzerland at Fribourg. She has been working in different clinical settings for over 15 years before she started her academic career. Currently, she teaches undergraduate and graduate students in the nursing program of the school of health in Fribourg and in St. Gallen. Further, she is responsible for a practice academic partnership program for patients affected by cancer and supports cancer outpatients at the regional hospital in Fribourg to self-manage their symptoms. Previously, she was responsible for oncology nursing education at the Zurich University of Applied Science in Winterthur.

She is the general secretary of the Swiss Association Supporting Self-Management and therefore engaged in disseminating a nurse-led intervention called Symptom Navi Program in Switzerland. Information on this program are described further down in the PhD project summary. Since 2016, she is the co-president of the Academic Society Oncology Nursing from the Swiss Association for Nursing Science.

Her research interests are self-management support, nursing care across the cancer trajectory from diagnosis to survivorship, implementation research, and interprofessional collaboration.



Description of the project

Implementation of the Symptom Navi Program for cancer patients in ambulatory services: A cluster randomized pilot study (Symptom Navi Pilot Study)

Introduction The Symptom Navi Program (SNP) is a nurse-led intervention supporting patient symptom self-management. It consists of written patient information leaflets (Symptom Navi Flyers, SN-Flyers), semi-structured consultations, and a training manual. Previous qualitative studies with patients and professionals showed good acceptability and usability of SN-Flyers and patient satisfaction with nurse-led consultations (1). The dissertation is embedded in the Symptom Navi Pilot Study (2). The objectives of the dissertation were to evaluate the feasibility of implementing the SNP. Outcomes of interest were a) patient accrual and retention rates, b) training content and nurses' fidelity to the training, c) preliminary safety and impact on patient-reported outcomes.

Methods A cluster-randomised two parallel arm design was employed by randomising the outpatient cancer centres (=clusters) to the intervention group (implementation of the SNP) or the control group (usual care). Adult German-speaking patients starting first-line systemic treatment (for any cancer type) were included. Nurses in the intervention group participated in two training courses and evaluated training content on a study specific questionnaire. Following SNP training, nurses used SN-Flyers to provide at least two semi-structured consultations per patient. Nurses Work-related Sense of Coherence (Work-SoC scale) (3) was used to examine the relationship between nurses' confidence in implementing the SNP and perceptions of their current work situation. To explore nurses' fidelity to the training, study specific questionnaires assessing self-reported adherence to six core-elements of the semi-structured consultations were utilised (4). In addition to nurses' self-reports, two semi-structured consultations were observed at each intervention centre. To investigate SNP safety, nurses and oncologists reported any adverse events potentially related to the program. Validated questionnaires were used to assess patient-reported symptom interference with daily functions, symptom severity/burden, self-efficacy, and perceived nursing support for symptom management. Patients completed questionnaires at baseline (BL), after 1 – 3 weeks (t1), after 4 – 6 weeks (t2), and 16 weeks post BL.

Analysis Qualitative thematic analysis was used to explore the observations of semi-structured consultations. Statistics included descriptive analyses, the Kendall Tau test, and linear or logistic mixed-effect models. To explore the preliminary impact on patient-reported outcomes change in means between the two groups for each time point (t1, t2, t3) were compared. BL scores, treatment group, time point (i.e. t1, t2, or t3), and interaction of group and time were included as fixed covariates while cluster and patient were considered as nested random effects.

Results Four centres (49 patients) were randomised to the SNP group and 5 centres (85 patients) to the control group. One SNP centre withdrew from the study without recruiting any patients. The SNP group included more women ($p = .030$), younger patients ($p = .001$), and more patients living with family members needing care ($p = .019$). The accrual rate was significantly lower for the SNP group compared to controls (71% versus 90%, risk difference -19%, 95% CI -32% to -7%, $p = .003$). Overall, 43 patients (88%) received the intervention as intended (= retention rate, range 75% to 100%). Nurses accepted the training format and content. Perceived confidence in implementing the SNP into clinical practice was positively correlated with overall Work-SoC scores ($r_s = .47$, $p = .04$). Overall, nurse self-reported compliance with the core-elements of the semi-structured consultations was 92% (95% CI: 87% to 97%). However, the analysis of the observations suggest that nurses rarely used self-management education elements to actively facilitate patients' symptom self-management. No adverse events were reported for the SNP group. Symptom interference with daily functions was unchanged by the SNP (mean difference at 16 weeks: -0.50; 95% CI: -1.38 to 0.38; $p = 0.25$) – as were all other patient-reported outcomes.

Conclusions Overall, accrual/retention rates, nurses' acceptance of the training and their high adherence rates to the training indicate that SNP implementation was well received by participating centres. No adverse events have been observed. Nevertheless, findings reveal that the program had no impact on patient-reported outcomes. Improving the SNP by strengthening symptom self-management education elements and nurses' coaching role should be applied before planning further investigations.

References:

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