Valorisation
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The aim of this thesis was to gain knowledge about the implementation of evidence-based practice (EBP) in nursing, to find a way to integrate shared decision making (SDM) with EBP in a chronic care environment in nursing, and to develop a strategy for an integrated approach of EBP and SDM in daily nursing practice in the individual aftercare for cancer survivors. The research provided knowledge of teaching and implementation of EBP adapted to the level of education of nurses. Furthermore, the findings provided insights in how to integrate EBP and SDM in chronic care, which resulted in a conversation approach (in which both EBP and SDM are integrated) for use in cancer aftercare. Some tools based on the conversation approach were digitised and integrated in a patient decision aid (PtDA) for breast cancer aftercare and in a general website for patients to prepare for an aftercare consultation. Experiences of lymphoma survivors in early aftercare, after having been exposed to the conversation approach, and perceived barriers and facilitators for health care professionals to adopting the PtDA for breast cancer aftercare have been studied.

Besides the scientific value of the findings of the research project, the findings also have societal value. The aims and findings of this research are relevant for chronic care patients especially cancer survivors, for health care professionals and health care and governmental organizations, and for lecturers and student in health care education. To become valuable, the findings have to be communicated to these stakeholders: to the scientific community, to health care professionals working in cancer care settings or other chronic care settings, to chronic care patients especially cancer survivors, and in educational settings. The process of value creation from knowledge by making it applicable and available for economic and societal utilization, by translating it into products, services and processes, is called ‘valorisation’. In this valorisation chapter, the findings of the research project presented in this thesis are discussed with regard to the following aspects: relevance and innovativeness of the findings, translation of the findings to various target groups, and further activities and dissemination.

Relevance and innovativeness

In this section, the relevance and innovativeness of the research project is described in relation to the integration of EBP and SDM in nursing and to the conversation approach for cancer aftercare.
The integration of evidence-based practice and shared decision making in nursing

In the course of this research project, there was a growing opinion in literature that the singular focus on research evidence in EBP should give way to a more multifaceted focus, in which summarised, critically appraised research evidence is integrated and the values of the individual patient and the patient’s context are taken into account. Our research findings contributed to this growing opinion. We pleaded to always invite chronic care patients in decision making, and we suggested and visualized how to integrate EBP and SDM in chronic care in nursing. Suffering from a chronic condition affects a person’s life. Chronically ill people may encounter consequences like fatigue, insecurity, depression and restrictions in daily functioning. They are challenged to deal with these consequences and often have to adapt their lives to cope with these consequences. To support these patients in managing their condition in their daily lives, it is important to involve them in decision making and provide them with a personalised approach that addresses their individual experiences, preferences and values.

A conversation approach for cancer aftercare

For many people cancer survival, regardless of their disease status, increasingly means living with a chronic condition for which a lot of decisions have to be made with regard to evidence based aftercare. In the light of cancer aftercare, it is especially relevant to support nurses with a systematic feasible conversation approach to facilitate shared goal-setting and shared decision-making in daily practice to improve cancer aftercare in line with recommendations of evidence-based practice guidelines. We developed a conversation approach of which the innovativeness lies in an explicit focus on SDM about evidence-based cancer aftercare interventions directed at patient values and goals. Furthermore, the approach for cancer aftercare integrates already used patient-reported outcome measures (PROMs) to support the implementation of PROMs in routine care, which is a topic for improvement in daily health care practice. Another important aspect of the conversation approach is the strong integration of supporting tools derived from currently used and existing tools from evidence-based clinical practice guidelines and the Netherlands Comprehensive Cancer Organization (IKNL). The graphic tool ‘four domains of life’ is based on the framework of the International Classification of Functioning Disability and Health (ICF). The holistic conversation approach and the four domains of life emphasize the concept of ‘positive health’, in which health is not merely the absence of disease or disorders, but is defined as the ability to adapt to and to self-manage disorders or disease. The concept of ‘positive health’ is being increasingly adopted in Dutch health care.
By digitising and integrating some tools (including the PROMs questionnaire) based on our conversation approach in a PtDA for aftercare in breast cancer (https://beslissamen.nl/pda_launch.html?pda=tools/pda_borstnazorg_nl/story_html5.html) and in a general website for patients to prepare an aftercare consultation (https://eyespirations.com/wpcontent/uploads/ADRZ/Voorbereiding%20nazorggesprek %20-%20Storyline%20output/story_html5.html) we facilitated the use of these tools for SDM and the embedding of these tools in care processes.

Target groups

The results reported in this thesis may be relevant for several target groups: chronic patients, especially cancer survivors; nurses and other health care professionals, students and lecturers, health care and governmental organisations, and researchers.

**Chronic patients, especially cancer survivors**

To support chronic patients with managing their own condition, it is important to involve them in decision making and to provide them with a personalised approach that addresses their individual values and goals.13-16 Moreover, informed patients increasingly have a desire to be involved in decision making.26 The developed conversation approach might facilitate cancer survivors to receive tailored aftercare.20,27 The PROMs that are incorporated in the conversation approach and the tool that visualizes domains of life, may facilitate patients discussing their actual problems and setting goals after cancer treatment. In the research provided within the thesis we explicitly focused on in depth experiences and stories of patients in cancer aftercare to actually give them a voice.

**Nurses and other health care professionals**

The research in this thesis creates awareness of the relevance of integrating EBP and SDM in chronic care and provides nurses and other health care professionals with tools how to accomplish this.

Although research and evidence-based practice guidelines acknowledge that patients should be provided with tailored evidence based cancer aftercare, we learned from analysing practice that nurses and other health care professionals do not always provide patients with this. Our studies revealed that the conversation approach might support nurses to reach more in-depth patient centred conversations and provide patients with more tailored aftercare.20 We developed a training and coaching on the job to support nurses with conducting the conversation approach.

The studies revealed important challenges to implement the conversation approach.
such as the experienced difficulties of nurses to elicit patients’ preferences and set goals. To actually reach implementation of the approach it is important that the approach is compatible with and embedded in care processes. Moreover, the nurses need to be confident and able to conduct the approach.²⁰,²⁸

Students and lecturers

The results of the research reported in this thesis are relevant to implement in the curricula of nursing science and other health care faculties. The new educational bachelor profile of nurses describes the competencies of nurses according to the 'Canadian Medical Education Directives for Specialists' (CAN meds) roles.²⁹ These CAN meds roles are broadly adopted in faculties for health care students. The CAN meds role ‘reflective EBP professional’ outlines the EBP competencies for future health care professionals and in the CAN meds role ‘Collaborator’, SDM competencies are outlined. Based on the results of our research, we recommend to start with teaching students to think critically and apply the nursing process steps. Subsequently, to teach nursing students the competencies to conduct the process steps of EBP focused on major care topics and to integrate (Dutch) evidence-based clinical guidelines in the SDM process for authentic patient cases. Then, students can be taught to search summarised, critically appraised evidence, like systematic reviews and other research studies in databases like PubMed. To understand the level of the quality of research evidence they need knowledge about different research designs. We, further, recommend that secondary vocationally or medium level trained nurses are taught the competencies to use EBP guidelines and protocols and to support self-management of patients.

The developed conversation approach with the tools, can be used to actually teach students how to conduct an integrated approach of EBP and SDM into daily practice. We learned that it is important to teach students the theoretical concepts of the approach and to train them in using the conversation approach with authentic patient cases throughout the curriculum.

Health care and governmental organisations

Our studies were conducted mainly with nurses within the hospital setting. Within hospitals there is growing attention for implementing EBP and SDM on the work floor. Training nurses to become clinical nurse leaders might facilitate implementation of EBP and SDM within an organisation.³⁰-³⁴

The results of our research might provide hospitals with insights in how to teach and implement EBP and SDM on the work floor. For nurses, especially secondary vocationally or medium level trained nurses, it is difficult to conduct the process steps of EBP. We
suggest adapting the EBP process steps to suit the level of education of the nurses. This can be done by formulating Problem - Intervention (PI) questions or Problem – Intervention – Control – (PICO) Outcome questions around major care topics like pain and nutrition, and advising a search strategy focussing on (Dutch) clinical practice guidelines and other summarised evidence, such as systematic reviews and critically appraised topics. To teach and implement EBP it seems important to link EBP to the context in which it is implemented for example by choosing authentic patient cases.

In addition, we advise the hospital management to appoint nurse practitioners or other nurses with a master’s degree to support the nurses on the ward with the EBP process steps, especially regarding efficiently searching the research literature and critically appraising the evidence.

The basic framework of the conversation approach can be used to teach nurses how to conduct an integrated approach of EBP and SDM in daily practice. The conversation approach is not only relevant for the hospital setting, but for different chronic care settings as well. Furthermore our research contributes to building bridges across the societal paradigm shift that is reflected in a recent Dutch national report.\textsuperscript{1} It also may help to improve cancer aftercare as advised in a report from the Dutch Health Council.\textsuperscript{35}

\textit{Researchers}

The results of the studies presented in this thesis contribute to the body of knowledge about implementation of EBP and its integration with SDM in a chronic care environment in nursing, especially in the individual aftercare for cancer survivors.

To build bridges across the paradigm shift of EBP, we demonstrated how to use a variety of study designs with elements of action research that not only fit the aim but also the setting of the studies. Gaining an in-depth insight in experiences of patients, as we did in experiences of lymphoma survivors in early aftercare, also fits within the paradigm shift of EBP that research should focus more on patient experiences.\textsuperscript{36}

Researchers might learn from our challenges with practice based research in a dynamic context, as we experienced during the merge of hospitals. Practice based research in a dynamic context requires flexibility of the researchers. It is neccessary to follow the dynamics of the context to make sure that the main stakeholders are involved and that products are jointly developed and finally implemented in daily practice.

Conducting the research reported on in this thesis contributed to the collaboration between different researchers not only at Zuyd University of Applied Sciences, but also at Maastricht University. We even combined part of the research of this PhD trajectory with two other PhD trajectories, the first in which a similar conversation approach was implemented in family medicine practice and the second in which tools based on our
conversation approach were digitised and integrated in a patient decision aid for breast cancer aftercare. Finally, we suggested several topics for further research, like exploring the use of the underlying concept and tools of the conversation approach earlier on in the care trajectory and conducting a large process evaluation.

Activities and further dissemination

Already early in the project we started to disseminate our results in different ways and on different occasions: in publications and conferences, to health care organisations, to health care faculties, and to lifelong learning. We furthermore started several activities to disseminate the results in near future.

Publications and conferences

We published several papers in international, peer reviewed journals and in national journals. The results of the studies have been presented on several national and international conferences by means of posters and oral presentations.

Health care organisations

Since, 2016, Zuyd University of applied sciences cooperates with Zuynderland Medical Center to teach nurses EBP and SDM competencies, to conduct projects to improve nursing care and to conduct nursing research. Patient discussion meetings based on EBP principles are implemented in daily nursing practice on a growing number of care units. The results of our research are used to successfully teach EBP and SDM competencies and to implement patient case discussion meetings and improve nursing care. Although, implementation of EBP still is not easy, progress has been made since the start in 2016. On four wards nurses now structurally conduct patient case discussion meetings. On each ward two to three nurses take the lead in these meeting. These nurses learn from each other. To make clinical leadership happen, it is important to professionalise the nursing profession.

Although the conversation approach and PtDA are not broadly implemented in cancer aftercare yet, the NABON guideline for breast cancer refers to the PtDA. A further important aspect of the conversation approach is that the basic framework can be used for other chronic care settings than cancer aftercare. Lenzen et al. implemented the approach in Dutch primary care organisations and the approach is recommended for use within Dutch family medicine.
Health care faculties

The results of the studies, have already been partly implemented in the health care faculties of Zuyd University of Applied Sciences. EBP training in the first years of the curricula focus on finding and applying clinical practical guidelines for authentic patient cases. In the final years of training, students learn to use literature found in PubMed and other English databases. The developed basic conversation approach is embedded within the new curriculum of the bachelor of nursing, within the bachelor occupational therapy and in an interprofessional minor about rehabilitation for nursing-, occupational therapy- and physical therapy students.

Students are taught to conduct the approach and practice it with real patients during practical learning.

The conversation approach was studied in the context of several bachelor theses. A group of nursing students further explored the feasibility of the visual tool within family medicine practice, one medical student explored the feasibility and acceptability of the conversation approach for cancer aftercare in family practice, and a group of occupational therapy students used the visual tool to train occupational therapists in goal setting.

Lifelong learning

SDM and the content of the conversation approach are integrated in a teaching program for lifelong learning for health care professionals working in oncology and in a programme for empowering leadership competencies in community nurses.

Activities to further disseminate the results

To further implement the conversation approach in oncology care pathways in Zuyderland Medical Center a research proposal to receive research funds, has been submitted. In the near future further activities will be undertaken to implement the results of the studies in health care settings and in curricula of universities.

Recently, the conversation approach and the results of the pretest and the narrative inquiry have been presented by the PhD student of this thesis (JF), the advanced practice nurse of the malignant lymphoma care pathway of Zuyderland Medical Center (DQ) and a patient (JP) at a conference of the Quality of Care consortium of Netherlands Federation of University Medical Centers about Value Based Health Care (https://www.qruxx.com/samen-beslissen-verbetert-zorg-in-voor-en-natraject/).


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