

**Nursing Research Foundation**

**NRF HANDBOOK | NO. 2 | 2024**

# **Development and implementation of evidence-based consistent practices in nursing**

## **A handbook on the use of the FinYHKÄ™ operational model**

This handbook on the use of the FinYHKÄ operational model was written by a working group consisting of  
Arja Holopainen, Hannele Siltanen and Heidi Parisod.

The working group wishes to thank the researchers of the Nursing Research Foundation,  
Silja-Elisa Eskolin, Kristiina Heikkilä, Kaisa Marin, Johanna Nyman and Mira Palonen,  
for their valuable comments and contributions to support the finalisation of the handbook.

We also wish to thank Tanja Pitkänen for the layout of the figures contained in the handbook.

Nursing Research Foundation  
ISSN 2984-2018  
Figures: Tanja Pitkänen

How to cite:

Nursing Research Foundation. 2024. Development and implementation of evidence-based consistent practices in nursing. A handbook on the use of the FinYHKÄ™ operational model. NRF handbook 2/2024. Authors: Holopainen A, Siltanen H, Parisod H. Nursing Research Foundation. Available at: [www.hotus.fi](http://www.hotus.fi).

## TABLE OF CONTENTS

FOR THE READER .....	4
1 INTRODUCTION .....	5
2 CONCEPTS RELATED TO EVIDENCE-BASED PRACTICE .....	6
3 OPERATIONAL MODEL FOR THE STANDARDISATION OF EVIDENCE-BASED PRACTICES IN NURSING (YHKÄ OPERATIONAL MODEL) .....	10
3.1 The development of the YHKÄ operational model .....	10
3.2 The need to update the YHKÄ operational model .....	11
4 FROM YHKÄ (OMEBP) TO FinYHKÄ .....	12
4.1 Updating the YHKÄ operational model .....	12
4.2 The theoretical starting points of the FinYHKÄ™ operational model .....	12
5 THE FinYHKÄ™ OPERATIONAL MODEL AND ITS STAGES .....	17
5.1 Support structures for evidence-based practice .....	18
5.2 Development and implementation process of evidence-based consistent practice ..	23
5.2.1 Identifying development needs concerning the current practice .....	23
5.2.2 Planning the development and implementation of a consistent practice .....	28
5.2.3 Development and implementation of the consistent practice .....	38
5.2.4 Evaluation of the consistent practice .....	40
5.2.5 Evidence-based decision-making .....	44
6 IN CONCLUSION .....	46
REFERENCES .....	48

## FOR THE READER

In 2010, the Nursing Research Foundation (NRF) published an operational model for the standardisation of evidence-based practices in nursing (the YHKÄ operational model), which described the evidence-based standardisation of nursing practices. Based on the feedback received on the use of the operational model, NRF began work on updating the operational model in 2022. More depth was added to the theoretical foundation of the model and the support structures for evidence-based practices, and the four stages of the operational model were made more concrete: 1) identifying the development needs associated with the current practices, 2) a plan for an evidence-based consistent practice, 3) implementation and sustainment of the consistent practice, and 4) monitoring and evaluating the practice. In connection with the updating of the operational model, its name was specified as *the Operational Model for Developing and Implementing Consistent Evidence-Based Practices* (later: *FinYHKÄ™ operational model*).

# 1 INTRODUCTION

The objective of promoting evidence-based practices is to enable consistent and safe care for patients and clients in health care and social services regardless of the location or provider of care, and to promote the quality of care, patient and client safety, and the appropriate use of resources. This means that practices in health care and social services, and related development and decision-making, are based on reliable evidence on the effectiveness, cost-efficiency, feasibility and appropriateness of interventions (treatment methods) and practices, as well as their meaningfulness to the person in need of health care or social services and their loved ones.

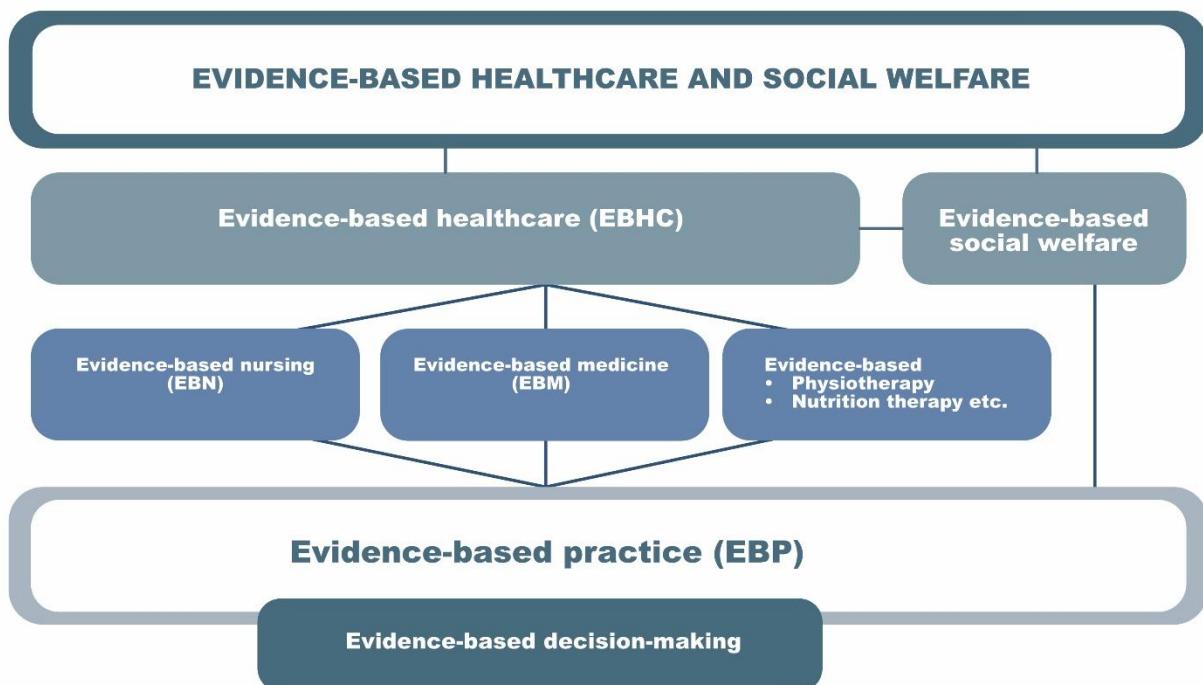
The need for evidence-based health care and the standardisation of evidence-based practices was recognised more widely in Finland in the 2000s at the latest. Examples of this include national projects such as *Increasing the effectiveness and attraction of nursing care by means of management – an action plan for the years 2009–2011*<sup>1</sup>, the *National Development Plan for Social Welfare and Healthcare*<sup>2</sup> and the *Health Care Act (1326/2010)*<sup>3</sup>. At the time, the objectives included promoting the productivity and effectiveness of health care through evidence-based practices and ensuring good care<sup>1</sup> for clients and patients (hereinafter referred to as "clients").

The implementation of evidence-based practice requires various support structures and cooperation between various parties. A further precondition is that the actions of health care and social welfare professionals are based on evidence-based consistent practices. Ultimately, evidence-based care of the client (including the promotion of health, rehabilitation) and evidence-based practice by professionals in the field is only accomplished when the decision-making during encounters between health care professionals and clients is based on evidence.

Published in 2010, the operational model for the standardisation of evidence-based practices in nursing (YHKÄ operational model)<sup>4</sup> is a support structure developed in Finland for the implementation and sustainment of evidence-based interventions and practices. This handbook describes the implementation and content of the process of updating the model, which is now referred to as the Operational Model for Developing and Implementing Consistent Evidence-Based Practices (later: FinYHKÄ™ operational model). The handbook provides guidance on the development, implementation and sustainment of evidence-based consistent practices on the basis of the FinYHKÄ™ operational model. The purpose of the operational model is to support the development and implementation of evidence-based consistent practices and to promote the actualisation of evidence-based nursing.

## 2 CONCEPTS RELATED TO EVIDENCE-BASED PRACTICE

When evidence-based practice is actualised, the professional groups operating in various health care and social welfare organisations base their actions on evidence that has been assessed to be reliable. This requires adequate support structures and multidisciplinary cooperation. The steps in the evidence-based health care process include identifying the need for information, producing research, evidence synthesis, evidence transfer and evidence implementation<sup>5</sup>. Different participants in health care and social welfare services (including e.g. practical nurses in clinical care, clinical nursing specialists, nursing managers and leaders, researchers, teachers) each have a key role and task in the implementation of the various stages of the process.<sup>6</sup> The evidence-based care of the client (including the promotion of health, rehabilitation) and evidence-based practice by professionals in the field is only accomplished when the decision-making of the health care or social welfare professional is based on evidence (Figure 1).



**Figure 1. A comprehensive view of evidence-based health care and social welfare services.**

Evidence-based practices have been found to improve patient outcomes<sup>7</sup>, promote high-quality and safe care<sup>8,9</sup> and reduce health care costs<sup>7</sup> (Info box 1). Nevertheless, there are still shortcomings in the implementation of research evidence<sup>10,11</sup>. The identified reasons for this include, for example, inadequate support structures for the implementation of evidence<sup>12,13</sup>, shortcomings in the competence of health care professionals with regard to evidence-based practices<sup>14</sup> and the fact that the implementation and sustainment of evidence-based innovations (e.g. interventions or practices) are complex processes<sup>15,16</sup>.

**INFO BOX 1: Evidence-based consistent practices and their significance.**

WHAT ARE CONSISTENT PRACTICES BASED ON?	WHY ARE CONSISTENT PRACTICES NECESSARY?
Evidence assessed as reliable <sup>4,17</sup> .	<ul style="list-style-type: none"> <li>• Reduce unjustified variation in care and services<sup>4,9,17,18</sup>.</li> <li>• Promote patient and client safety<sup>11</sup>, reduce ineffective interventions and, thus, unnecessary costs<sup>19</sup>.</li> <li>• Can be utilised in the development of clinical pathways<sup>19</sup>.</li> </ul>

**EXAMPLE: The current state of evidence-based nursing in Finnish health care and social welfare service organisations.**

Since 2017, NRF has conducted a national survey once every three years to examine the current state of evidence-based nursing and its supporting factors in health care and social welfare service organisations. NRF's newly developed instrument for assessing the actualisation of evidence-based nursing (ActEBN) was used for the first time in the survey in 2021<sup>20</sup>. The results of the survey showed that there are still several development needs with regard to the actualisation of evidence-based nursing. Based on the respondents' views, the development needs are particularly associated with their organisation's support structures, such as support from nursing managers.<sup>21</sup>

Efforts have been made over the past decades to clarify the concepts associated with evidence-based practices (e.g. evidence-based nursing, evidence-based practice), but their use still involves inconsistencies. This has had an impact on how nursing professionals, for example, have understood evidence-based practices and their meaningfulness in the development of nursing. Having a uniform understanding of the concepts is therefore a starting point that must be ensured when developing evidence-based practices.<sup>7,16,22,23</sup> The key concepts related to this handbook are defined in Info box 2.

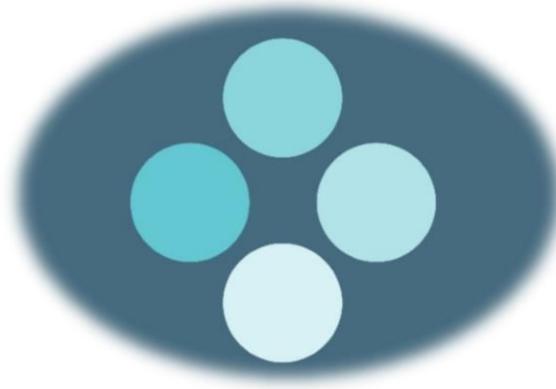
**INFO BOX 2: Concepts related to evidence-based health care.**

EVIDENCE	<p>Evidence refers to the best available information. In practice, this refers to an up-to-date synthesis of systematically collected and critically evaluated research evidence (e.g. a systematic review) or, in the absence of research evidence, expert consensus on the matter or phenomenon in question. Evidence is used to develop effective, meaningful, feasible and/or appropriate health care services, practices and interventions.<sup>5,24</sup></p> <p>Note the following difference: external (research) evidence<sup>25</sup> vs. internal evidence that refers to monitoring and evaluation data compiled from organizational and national-level activities. See "knowledge-based management" for more information.</p>
EVIDENCE SYNTHESIS	<p>When evidence is produced, the research conducted on a given topic is systematically reviewed and then compiled, evaluated and synthesised as evidence. The stages of evidence synthesis are as follows: 1) a comprehensive and systematic search of studies on the topic, 2) a critical appraisal of the methodological quality of and/or risk of bias in the studies, and 3) synthesis of results that are assessed to be reliable and presenting conclusions.</p> <p>For evidence to be up-to-date, the information search must be regularly updated and, if necessary, the evidence synthesised on the topic must be updated on the basis of new information.<sup>26</sup></p>

<b>EVIDENCE TRANSFER</b>	Putting evidence into practice requires that the evidence is brought to the attention of health care and social welfare professionals and that it is available in a form that can be implemented (e.g. a clinical practice guideline). For example, training, the integration of evidence into the electronic decision support in patient information systems, and guidance on how the evidence can be implemented help transfer evidence to professionals and support its implementation. <sup>5,27</sup>
<b>EVIDENCE IMPLEMENTATION</b>	Implementation is the process of integrating evidence-based practices, interventions and services into practice <sup>28</sup> . Implementation consists of activities aimed at engaging the commitment of professionals and key stakeholders to base the development of practices and decision-making on evidence. The key factors in evidence implementation include taking the context into consideration, supporting change and evaluating processes and outcomes. <sup>5</sup>
<b>SUSTAINMENT OF INTERVENTIONS</b>	Sustainment is also referred to as embedding. The sustainment of interventions in the care of clients is an active effort <sup>29</sup> that requires time and resources as well as the commitment of professionals, change planning and an understanding of implementation strategies <sup>11</sup> .
<b>EVIDENCE-BASED CONSISTENT PRACTICE</b>	An evidence-based consistent practice (in nursing, for example) has been developed using the best possible evidence and implemented throughout the organisation or unit <sup>4,17,30</sup> . Procedures, checklists or patient instructions, for example, have been drawn up to support the practice <sup>4</sup> . The aim is to reduce unjustified variation in practices <sup>4</sup> , increase the efficiency of the organisation's operations and improve the quality of the client's care <sup>30</sup> and the meaningfulness of care to the client.
<b>EVIDENCE-BASED DECISION-MAKING</b>	For example, in a clinical decision-making situation related to the treatment of a client in health care, the nursing professional assesses, together with the client, the client's individual situation and the special characteristics of the context on the basis of their own expertise. Based on this assessment, the client and the nursing professional together make a justified decision on the nursing practice to be applied, taking into account consistent evidence-based practice, the client's situation and the context. <sup>4,7</sup>
<b>KNOWLEDGE-BASED MANAGEMENT</b>	In monitoring and evaluating the operations of organisations, management is supported by internal evidence on the organisation's operations, as well as regional and national level operations, collected from various sources. Examples of such internal evidence include various statistics, patient and client feedback, and data registers. The evidence collected in this manner can be used in management to identify the development needs of the organisation and obstacles and strengths related to development, for instance. When development needs have been identified, the best possible external evidence, such as a clinical practice guideline or systematic review, is used to develop the content of practices, taking internal evidence into consideration.

# **PART I:**

## **Background to the FinYHKÄ™ operational model**



# **3 OPERATIONAL MODEL FOR THE STANDARDISATION OF EVIDENCE-BASED PRACTICES IN NURSING (YHKÄ OPERATIONAL MODEL)**

## **3.1 The development of the YHKÄ operational model**

Published in 2010, the operational model for the standardisation of evidence-based practices in nursing (YHKÄ operational model)<sup>4</sup> is a support structure developed in Finland for the implementation and sustainment of evidence-based interventions and practices. The starting point for creating the operational model was the development of consistent evidence-based practices at the national, organisational or work unit levels. Based on extensive literature searches, no corresponding operational models were found at the time of developing the model. Previous operational models either presented evidence-based practice and factors that promote and hinder it at a general level, or they mainly described how individual professionals can develop their practices based on evidence<sup>31-33</sup>. The core idea in these models was that the nursing professional recognises a clinical problem in their nursing work, searches for research evidence related to the topic and bases their actions on the evidence found. Consequently, it was possible that even if an individual nursing professional acted on the basis of evidence, practices could vary between nursing professionals and between units and organisations depending on what studies each nursing professional had found and how they had used them as the basis of their actions.

The aim of the YHKÄ operational model was to describe the standardisation of nursing practices based on evidence. The principle was that the standardisation of evidence-based practices requires agreeing on the responsibilities and structures of different parties at the national, regional, operational and work unit levels. This is enabled through cooperation between researchers, nursing leaders at different levels, educators and experts in the field and those engaged in clinical work. Another starting point for the YHKÄ operational model was that evidence-based clinical practice guidelines should be available in operational units and work units. The preparation of these clinical practice guidelines should be coordinated, with responsibility for the guidelines assigned at the national level. According to the operational model, nursing leaders and directors at the regional, local and work unit levels should be responsible for ensuring that structures to support the development of consistent practices are created in the operational units and work units. Professionals engaged in clinical nursing work, for their part, were responsible for following the agreed-upon evidence-based practices.<sup>4</sup>

The YHKÄ operational model's process for developing evidence-based consistent nursing practices (Figure 2, in Finnish) consisted of four stages: 1) identifying development needs related to the current practice, 2) a plan for the standardisation of the practice, 3) a consistent practice and 4) monitoring and evaluation of the practice<sup>4</sup>.

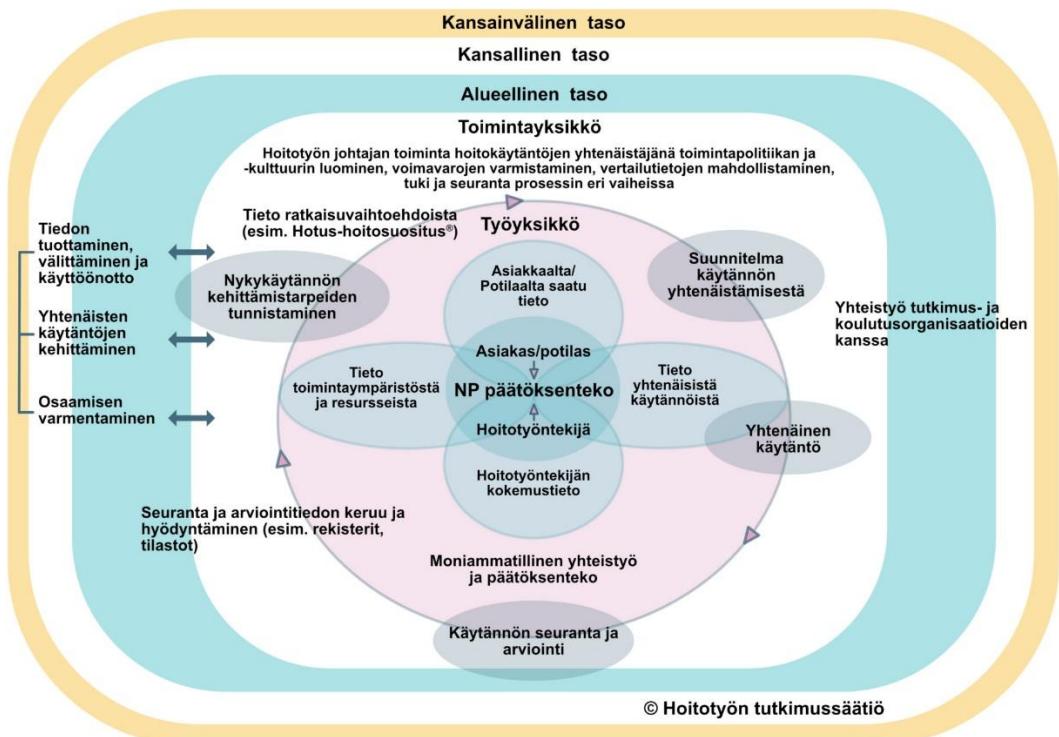


Figure 2. YHKÄ operational model (in Finnish).

### 3.2 The need to update the YHKÄ operational model

The YHKÄ operational model has been utilised in various projects that have developed an existing practice or implemented a new evidence-based consistent practice<sup>34</sup>. For example, the North Ostrobothnia hospital district applied the operational model in a project to prepare a consistent practice for the monitoring and development of hand hygiene<sup>34,35</sup>. The Satakunta hospital district developed a consistent practice for identifying pressure ulcers among elderly persons in long-term care using the YHKÄ operational model<sup>34,36</sup>, and a plan for implementing a baby and family-friendly programme in maternity and child health clinics was drawn up for the City of Helsinki's social services and health care division<sup>37</sup>. The operational model has been used to create a handbook for the national development of practices in line with the Baby-Friendly Hospital Initiative launched by WHO and UNICEF<sup>38</sup>.

Based on the feedback received on the use of the YHKÄ operational model, it was considered to be a good support structure for developing evidence-based consistent practices. The development suggestions were focused on making the various stages more concrete, which would facilitate the development and implementation of consistent practices, the collection of monitoring data and the evaluation of the development process.

## 4 FROM YHKÄ (OMEBP) TO FinYHKÄ

### 4.1 Updating the YHKÄ operational model

The assessment of the theoretical starting points of the YHKÄ operational model deepened over the years as a result of discussions and publications<sup>1,39</sup>. The actual process of updating the operational model began in 2022 with a description of its theoretical starting points. Describing the theoretical starting points helps the reader to identify and understand the factors that support the implementation and sustainment of new interventions and practices and the actualisation of evidence-based practices. The next step of the update process was to use the relevant literature and user feedback to add more specificity to the content of the four stages described in the operational model. The aim was to make the stages more concrete and thereby improve the feasibility of the operational model. In connection with the update, the name of the operational model was specified as the *Operational Model for Developing and Implementing Consistent Evidence-Based Practices (FinYHKÄ™ operational model)*.

### 4.2 The theoretical starting points of the FinYHKÄ™ operational model

A number of background theories, models and frameworks have been developed to support the implementation and sustainment of evidence-based practices<sup>10,15,16,40-44</sup>. The key principles of implementation theories, process models and frameworks were utilised in updating the YHKÄ operational model. The use of multiple background theories, models and frameworks is justified, as the development of evidence-based practices is a complex whole. One background theory usually focuses on describing a phenomenon, such as the development of consistent practices, from a limited perspective, which means that the whole of the phenomenon under examination is ignored<sup>40,45</sup>. Implementation theories help to identify challenges related to evidence implementation and understand the related factors<sup>40,43</sup>. Process models and frameworks typically describe the stages that support the transfer of evidence-based practices into everyday work<sup>40</sup>.

#### Normalisation process theory

Normalisation process theory is one theory that describes implementation. It helps to describe the underlying principles and assumptions of the FinYHKÄ™ operational model. Normalisation process theory describes factors that help to understand and explain the complex social processes by which new practices, or practices under development, are implemented and integrated in health care and social services. The theory focuses on what people actually do and how they work within the social processes through which innovations, such as evidence-based interventions and practices, are implemented and become part of routine functioning in the given context. The sustainment of interventions can be challenging because it is affected by several factors<sup>46-48</sup>:

- how the new intervention or practice is operationalised, i.e. adapted to the practice in question
- how, and at what stage, the intervention or practice is introduced into the context

- which parties are making efforts to sustain and embed the intervention or practice
- how is the interaction between the different parties involved with regard to the sustainment of the intervention or practice
- how is the implementation of the intervention or practice supported, and to what extent is the support long-term by nature
- does the intervention or new practice have different significance for different parties, and
- how is the intervention or practice implemented together.

Normalisation Process Theory identifies four core constructs that need to be taken into account when implementing (normalising) or developing new interventions and practices in a given context: 1) *Coherence of the intervention or practice*. Those participating in the activity need to understand the opportunities and benefits of the intervention or practice and how they can contribute to its implementation in their respective area of activity. 2) *Cognitive participation i.e. the social process through which individuals and communities engage with and commit to the intervention or practice*. Evidence-based engagement and commitment to the intervention or practice being developed is key. 3) *Meaningfulness of collective action*. It is important that those who participate in the activity perceive their participation as meaningful for evidence implementation. 4) *The significance of reflexive monitoring, i.e. the participants' appraisal of the intervention or practice being developed*. Appraisal is necessary for the identification of factors that promote or hinder the implementation of the intervention or practice, and for monitoring the impacts of the practice.<sup>47-49</sup>

The aforementioned factors are in a dynamic relationship with each other and the context in which the intervention or implementation of the practice takes place, i.e. the organisation, its structures and social norms, group processes and existing practices. It is also important to take into account the context's structural and information-processing resources and factors that may lead to variation in the intervention or practice in different environments.<sup>47-49</sup> The aim is that if the implementation of the intervention or practice leads to the desired outcomes, they are embedded as a normal practice<sup>46,47</sup>.

Normalisation process theory has been applied in several projects<sup>48,50</sup> in which evidence has been embedded in health care. In these projects, it has provided a useful thinking tool for implementation processes carried out in different contexts. Normalisation process theory has helped to understand the problems related to the implementation and sustainment of evidence, how the problems can be avoided and how to develop support measures for the implementation and sustainment of interventions and practices.<sup>48,50</sup>

### **KTA framework**

Among process models and frameworks, the KTA (Knowledge-to-Action) framework has been utilised in the updating of the YHKÄ model. It provides a framework for the organisation of thinking and guidance for action and the interpretation of action. The KTA framework guides the practical implementation of knowledge<sup>10</sup>. It describes the stages of knowledge creation, dissemination/transfer, implementation, monitoring and evaluation, which are dynamic and may partially overlap. *The knowledge creation stage*, i.e. the stage in which evidence is synthesised into clinical practice guidelines or systematic reviews, for example, can start either before or after the stage in which the need for knowledge is identified in practice. When evidence has been synthesised to support the development of practices, it must be adapted to local conditions and the specific context undergoing development, in order to facilitate its *dissemination and transfer*.

Barriers to evidence implementation must also be assessed in connection with this stage. The next step, *evidence implementation*, involves selecting the method by which the evidence is introduced and tailored to the context. Finally, in accordance with the KTA framework, the outcomes must be *monitored and evaluated*, and if they are positive, the evidence-based practice is embedded.<sup>45,51</sup>

### **Model of evidence-based health care**

The third theoretical starting point of the FinYHKÄ™ operational model and the underlying model describing evidence-based health care as a whole is the JBI Model of Evidence-based Health care (EBHC). The EBHC model uses a cyclical process to describe how health care operations are developed through different stages based on evidence. In the JBI model, the starting point and goal of evidence-based health care is the health and wellbeing of the population. Achieving this goal requires that research is generated and synthesised into evidence (e.g. systematic reviews, clinical practice guidelines), that evidence is disseminated and transferred (e.g. written or electronic reminders) and that the evidence is implemented and embedded.<sup>5,44</sup> The model emphasises that evidence implementation requires<sup>44,52</sup>:

- identifying the context, i.e. the local circumstances: for example, whether the organisational culture supports change
- interaction: for example, how to coordinate the change or how to communicate with different professionals and clients in a change situation
- collaboration: for example, whether the interaction supports collaboration in the development of operations or whether everyone has a common view of the goal
- human capital and resource allocation: for example, whether resources have been allocated correctly.

### **Summary**

The FinYHKÄ™ operational model serves as a roadmap for developing evidence-based practices. The underlying normalisation process theory, KTA framework and EBHC model (Table 1) behind the operational model help to identify the factors that are relevant to evidence implementation and the development of a consistent practice. They help to understand the mechanisms that enable the successful implementation of interventions and practices. The dissemination evidence alone is not enough. It needs to be supplemented with systematic implementation and the sustainment of interventions.<sup>40,48,50</sup>

**Table 1. Theoretical background of the FinYHKÄ™ operational model.**

NORMALISATION PROCESS THEORY <sup>46-48</sup>	KTA FRAMEWORK <sup>10,45,51</sup>	EBHC MODEL <sup>5,44</sup>
<p><b>A theory of an organisation's social processes:</b> what people actually do and how they work when evidence-based interventions and practices are implemented and integrated into the routine functioning of the given context.</p> <p><b>Important considerations concerning implementation:</b></p> <ul style="list-style-type: none"> <li>• the coherence of the intervention or practice, and sense-making</li> <li>• cognitive participation in evidence implementation, i.e. social process arising from the actions of the wider community</li> <li>• the significance of collective action</li> <li>• the significance of reflexive monitoring, i.e. the participants' appraisal of the intervention or practice being developed: identifying factors that facilitate or hinder it, and monitoring the impacts of the actions</li> </ul>	<p><b>A framework for the organisation of thinking and guidance for action and the interpretation of action.</b></p> <p><b>How</b></p> <ol style="list-style-type: none"> <li>1. <b>knowledge is created, i.e. how evidence is synthesised</b></li> <li>2. <b>knowledge is put into action</b> <ul style="list-style-type: none"> <li>• identify the problem and/or identify, review and select the evidence</li> <li>• adapt the evidence to the local context</li> <li>• assess barriers and facilitators</li> <li>• select, tailor and implement the intervention</li> <li>• monitor evidence use</li> <li>• evaluate the outcomes</li> <li>• sustain the evidence use</li> </ul> </li> </ol>	<p><b>A process model</b> on the implementation of evidence-based health care and the preconditions for it.</p> <p><b>The stages of the EBHC model:</b></p> <ol style="list-style-type: none"> <li>1. the starting point and goal is the health and wellbeing of the population</li> <li>2. generating evidence</li> <li>3. synthesising evidence (e.g. systematic reviews, clinical practice guidelines)</li> <li>4. evidence transfer</li> <li>5. evidence implementation and sustainment</li> </ol> <p>According to the model, the generation, synthesis, transfer, implementation and sustainment of evidence are complex processes that require familiarity with the context, interaction, collaboration and resources.</p>

## **PART II:**

# **Putting the FinYHKÄ™ operational model into action**



## 5 THE FinYHKÄ™ OPERATIONAL MODEL AND ITS STAGES

The FinYHKÄ™ operational model consists of support structures for evidence-based practice, the process of developing and implementing evidence-based consistent practice, and clinical evidence-based decision-making concerning the treatment of the client (Figure 3). The support structures at the international, national, regional and operational unit levels shown on the outer rings of the operational model are a prerequisite for the development and implementation of evidence-based consistent practices in health care and social services.

The process described at the core of the FinYHKÄ™ operational model describes the development and implementation of an evidence-based consistent practice and how the consistent practice is manifested in decision-making carried out in cooperation between the nursing professional and the client. These different parts of the operational model are described in more detail below.

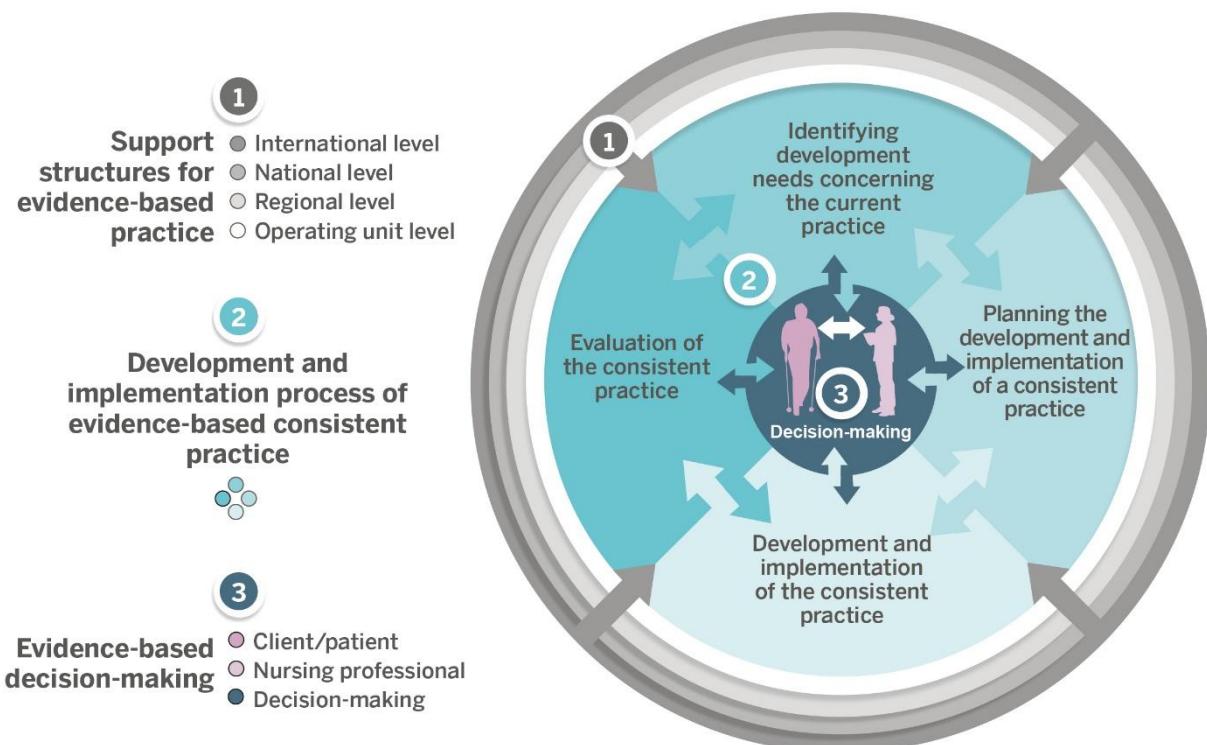


Figure 3. FinYHKÄ™ operational model.

## 5.1 Support structures for evidence-based practice

The responsibility for the development of evidence-based consistent practices and thus also the creation of the supporting structures is divided between the international, national, regional (including wellbeing services counties and collaborative areas) and operational unit levels (including organisations and work units of different sizes, such as wards and outpatient clinics) (Table 2). The support structures at these levels are prerequisites that make the development of evidence-based consistent practices possible. The support structures at different levels are prerequisites for the generation and availability of reliable evidence, ensuring the competence of professionals and the evaluation and monitoring of evidence-based consistent practices.<sup>4</sup> The support structures also help to identify factors that contribute to the success of implementation<sup>40</sup>. In the FinYHKÄ™ operational model, the responsibility for organising and ensuring support structures is divided between the four levels mentioned above. In practice, this division is not quite so categorical. Instead, the division of responsibilities, especially between the regional and operational unit levels, must always be assessed on a case-by-case basis (cf. wellbeing services counties and the heterogeneity of the organisation of their operations).

**Table 2. Support structures for evidence-based practice at the international, national, regional and operational unit levels.**

LEVELS OF SUPPORT STRUCTURES	SUPPORT STRUCTURE	EXAMPLES
International unit level	Structures that enable the generation of research evidence	parties that generate research evidence (e.g. universities and research institutes) and grant research funding
	Structures that enable evidence synthesis	parties that carry out systematic reviews and prepare national evidence-based guidelines and recommendations
	Structures that support the generation and use of monitoring and evaluation data	national quality registers, the structures of the wellbeing services counties for collecting and using monitoring and evaluation data (focusing on, for example, the monitoring and evaluation of nursing resources, the implementation of nursing work, its outcomes and the competence of nursing professionals)
	Structures that support evidence transfer	the internal and external communications of national actors or the wellbeing services counties, the development and use of electronic decision support
	Structures that support the development and implementation of evidence-based consistent practices	human resources allocated to the development of evidence-based practices (e.g. experts in clinical nursing), development projects
	An organisational culture that supports evidence-based practices	integrating the principles of evidence-based practices into the strategy of the wellbeing services county and the operational units
	Support from nursing leaders	nursing leaders leading by example and as facilitators of evidence-based practice
	Structures that support the assurance of nursing personnel competence	enabling participation in the organisation's internal or external training, orientation training practices, mentoring

Table 2 illustrates the support structures at the international, national, regional and operational unit levels. In addition, one of the support structures at the national, regional and operational unit levels is the FinAME™ action model of expertise, which describes the role and tasks of nursing experts in evidence-based practices. It describes the division of duties between nursing experts in promoting evidence-based nursing. The model can also be used in health care and social

services to develop the competence of non-nursing experts and draw up strategic guidelines.<sup>6</sup> In evidence-based practice, the roles of nursing experts must be clear in order for evidence-based nursing to be actualised<sup>30,53</sup>, so the FinAME™ action model of expertise is an excellent support structure for this purpose.

*At the international and national levels*, researchers produce research and synthesise it into evidence that is used in the development of evidence-based consistent practices<sup>6</sup>. High-quality systematic reviews, in particular, provide reliable evidence (Info box 3) and serve as a basis for national evidence-based clinical practice guidelines. Reviews and clinical practice guidelines must be as easy to find and accessible as possible so that they can be utilised in evidence implementation. International actors (e.g. EU funding programmes) and national actors (e.g. the central government, foundations that provide grants) are significant influencers from the perspective of research funding, as they play a role in deciding which areas of research receive funding and, consequently, what types of studies are available for use as the foundation of evidence-based practice.<sup>4</sup>

**INFO BOX 3: Information needs to which answers are sought by means of systematic reviews<sup>24</sup>.**

<b>CLINICAL PRACTICE, INTERVENTION OR SERVICE</b>	<b>feasibility</b>	How feasible are best practice strategies in terms of their practicality or viability?
	<b>appropriateness</b>	How appropriate is an intervention or nursing practice for a specific local context?
	<b>meaningfulness</b>	How do individuals experience the organisation, management, and delivery of healthcare?
	<b>effectiveness</b>	Which interventions or administrative processes are most beneficial?

*At the national level*, researchers and those in expert positions in nursing are involved not only in the production of research and systematic reviews but also the preparation and dissemination of national clinical practice guidelines. In clinical work, systematic reviews and clinical practice guidelines serve as the basis for the development of consistent evidence-based practices.<sup>6</sup> It is beneficial for clients if there are certain evidence-based national standards (e.g. clinical practice guidelines) for clinical practice that are applied in health care and social services. This reduces or eliminates unjustified variation in the quality of care between different organisations or individual nursing professionals.<sup>54</sup> Nursing teachers also play a key role in evidence transfer by using systematic reviews and clinical practice guidelines as the basis of teaching in basic and supplementary education in the field<sup>6</sup>.

**EXAMPLE: Evidence-based recommendations, operational models and guidelines as support structures for pressure ulcer prevention.**

An *evidence-based clinical practice guideline* on the prevention of pressure ulcers have been developed at the national level. The wellbeing services county draws up an evidence-based consistent *operational model* for pressure ulcer prevention on the basis of the clinical practice guideline and, at the organisational level, *guidelines* for nursing professionals to enable the

identification of the pressure ulcer risk of a new patient. Supervisors are provided with *instructions for monitoring and evaluating statistics* on how to the identification of pressure ulcer risk is implemented in practice.

It is key to the implementation of evidence-based practice that, in addition to research evidence (external evidence), there is monitoring and evaluation data available on health care and social services, their quality and outcomes (internal evidence)<sup>55</sup>. This data is needed particularly to identify development needs concerning health care and social services and to evaluate whether the set quality targets are achieved by means of the evidence-based consistent practices that have been developed and implemented. This kind of monitoring and evaluation data can be collected nationally<sup>56,57</sup> and at the wellbeing services county level, for example. In addition to collecting data, it is key to agree on the division of responsibilities between the different parties involved and ensure sufficient resources for the use of the collected data in the development of services.

The wellbeing services counties, which began their operations in 2023 as *regional level* operators, have a significant role in promoting evidence-based practice. The strategies of the wellbeing services counties make references to evidence-based practice by stating that one of the objectives of service development is to develop the effectiveness and quality of service, for instance. Strategies must also be reflected in concrete terms, such as how the implementation of evidence-based practice (e.g. evidence transfer and implementation) and the outcomes are evaluated, or how the competence of all nursing personnel is ensured<sup>58,59</sup>. Achieving this objective requires that sufficient resources are allocated to development and evidence-based practice is also taken into account in human resources planning (e.g. vacancies of clinical nurse specialists in expert positions). This requires that the senior leadership of the wellbeing services counties — including both political and operational decision-makers — are also committed to promoting evidence-based practice within the wellbeing services counties they lead. A prerequisite for commitment is that decision-makers have access to information on how evidence can be used in the development of services and what the benefits are that can be achieved by evidence implementation<sup>60</sup>.

At the *operational unit level*, several concrete support structures are needed to ensure the application of evidence-based practices. The operational unit's structures, social norms, group processes and existing practices either promote or hinder the implementation of a new intervention or practice<sup>9,39,46,47,61</sup>. Thus, organisational culture plays a major role in the attitude of the nursing personnel towards changes and development activities<sup>39,58,59,62,63</sup>. The nursing leader's or manager's (later: nursing leader) attitude towards evidence-based practice is reflected in the organisational culture. The nursing leader's attitudes and actions affect the extent to which the nursing personnel see their work and evidence-based practice as necessary. The nursing leader's task is therefore to ensure that sufficient resources are allocated to development activities to assess the current practices (e.g. effective feedback systems, auditing, benchmarking) and, if necessary, their development and implementation.<sup>6,58,64-66</sup> Nursing leaders also need to ensure evidence transfer<sup>18,67,68</sup> and disseminate information about the evidence-based practice<sup>18,68</sup> and ensure that the nursing personnel in the operational unit can access evidence sources as easily as possible<sup>9,69</sup>. The nursing personnel must know where they can access the latest clinical practice guidelines, for example. Info box 4 describes the tasks of nursing leaders with regard to supporting the implementation of evidence-based practice.

**INFO BOX 4: Nursing leaders have a key role in the implementation of evidence-based practice (EBP), regardless of their level of operation.**

COMPONENTS OF LEADERSHIP	THE KEY TASKS OF NURSING LEADERS IN EVIDENCE-BASED PRACTICE
Knowledge of the organisation's structures and processes	<ul style="list-style-type: none"> <li>take EBP into account in strategic policies<sup>69,70</sup></li> <li>identify factors that support and hinder change<sup>65</sup></li> <li>develop support structures<sup>6,18,68</sup></li> <li>monitor national guidelines and registers<sup>69</sup> and the publication of national recommendations</li> </ul>
Leadership style	<ul style="list-style-type: none"> <li>strengthen the organisational culture in terms of its favourability for EBP<sup>65,68,69</sup></li> <li>be accessible to the nursing personnel<sup>68,69</sup></li> <li>cooperate with other nursing leaders, give and receive support<sup>18,68,71</sup></li> <li>cooperate with different stakeholders (e.g. researchers, educators, other health care organisations)<sup>18,58,68</sup></li> <li>engage in interaction with the nursing personnel<sup>68,72</sup></li> <li>encourage the nursing personnel to be innovative<sup>18,68</sup></li> <li>disseminate information about EBP<sup>18,68</sup></li> <li>see to the monitoring of operations<sup>18,67 68,70,72</sup></li> <li>provide feedback and motivate<sup>58,68,69</sup></li> <li>reward or thank the nursing personnel for good performance<sup>67,68</sup></li> </ul>
Own actions and setting an example	<ul style="list-style-type: none"> <li>act as a role model<sup>58,68-70</sup></li> <li>have knowledge and understanding of EBP and its significance<sup>65,68</sup></li> <li>ensure that support structures are in place for evidence transfer<sup>18,67,68</sup></li> <li>be prepared for, and support, change<sup>67,68</sup></li> </ul>
Ensuring sufficient resources	<ul style="list-style-type: none"> <li>ensure sufficient nursing personnel in relation to the workload<sup>58</sup></li> <li>ensure the nursing personnel's access to evidence sources<sup>9,18,69</sup></li> <li>enable the activities of mentors<sup>6,18,58,65,68</sup></li> <li>ensure time resources for the development of operations<sup>58,72</sup></li> </ul>
Ensuring the competence and cooperation of the nursing personnel	<ul style="list-style-type: none"> <li>promote the nursing personnel's awareness of EBP<sup>18,69</sup></li> <li>recognise the significance of competence<sup>68,69</sup></li> <li>enable training<sup>7,18,58,65,67-69</sup></li> <li>support the activities of mentors<sup>6,18,58,65,68</sup></li> <li>ensure the EBP competence of the nursing personnel<sup>18,68</sup> and that the nursing personnel have sufficient competence related to the new or updated consistent practice</li> <li>support collaboration among the nursing personnel<sup>58,70</sup></li> </ul>
Strengthening client engagement	<ul style="list-style-type: none"> <li>take customer expectations into consideration<sup>69</sup></li> </ul>

Ensuring the competence of an operational unit's nursing personnel requires continuous monitoring, assessment and training of nursing personnel competence. The use of the expertise of different specialists and mentors in the development of practices is reflected, for example, in the operational unit having guidelines and instructions that are up-to-date and based on evidence.<sup>9,18,30</sup> Evidence-based practice and the development of consistent practices support the decision-making of the nursing personnel<sup>6</sup> and orientation training ensures that new personnel are able to act correctly and safely in unfamiliar situations<sup>4,73</sup>. One of the tasks of nursing leaders

in nursing is to support and guide nursing professionals in clinical work in the use of evidence-based practices<sup>7,9,18,65,66</sup>, also by setting an example<sup>18,65,69,74</sup> and through collaboration between nursing leaders<sup>71</sup>.

### **EXAMPLE: Ensuring competence in evidence-based practice.**

Ensuring the competence of nursing personnel through training<sup>30,58,75</sup> is a key factor in promoting the implementation of evidence-based practice<sup>58</sup>. Ensuring competence related to evidence-based practice begins in education programmes leading to a nursing degree<sup>76</sup> and continues through the provision of regular training for employed nursing professionals<sup>7,77</sup>. Competence is evaluated so that both the nursing personnel and the supervisors have an understanding of competence in evidence-based practice at the individual and work unit levels and, depending on the front-line manager's role, also more broadly at the operational unit level. Competence can be evaluated by means of tests that measure the knowledge and skills of a nursing professional<sup>78</sup> and with tests that measure broader competencies related to evidence-based practices (knowledge, skills, attitudes, beliefs and behaviour)<sup>79</sup>. The front-line managers' competence is also ensured so that they can support the implementation and sustainment of evidence-based practices through their actions and the example they set<sup>18,58,65,68</sup>.

*At the individual level within the nursing personnel*, the support structures established to facilitate evidence-based practice become evident. For individual nursing professionals, this means having access to up-to-date, synthesised and critically appraised evidence to support clinical decision-making<sup>80</sup>. Previously, various studies (cf., for example<sup>31-33</sup>) have described how nursing professionals have had to base the development of their activities on looking up studies in databases and assessing their reliability before applying them in decision-making. This is now considered to be an unreasonable expectation, also because nursing personnel are not allocated enough time for this. Synthesising research into evidence to guide actions and decision-making also requires special competence. According to the current view, it is therefore not the individual nursing professional's responsibility to search for, evaluate and synthesise evidence from original studies. Instead, they must have access to reliable and summarised evidence, such as evidence-based clinical practice guidelines<sup>4,74,81</sup>. From the perspective of nursing personnel, the ideal situation is having access to concrete operational models and guidelines that guide their practical work and have been drawn up on the basis of proven evidence-based consistent practices developed either in their unit or elsewhere. Operational models and guidelines support nursing personnel's evidence-based decision-making in clinical work. In addition, each client's individual experiences, needs and expectations, as well as the context in which the client's care is implemented (e.g. hospital, home or a unit that provides 24-hour care) play a central role in making decisions about their care together with the client.<sup>4</sup>

The individual nursing professional is responsible for acting in accordance with the agreed-upon consistent practices, unless the client-specific context requires otherwise. They should also participate in the evaluation of care. Similarly, they are responsible for maintaining and developing their own competence.<sup>4,6</sup> The aforementioned requirements make it necessary for every nursing professional to understand what evidence-based practice is about<sup>7,23</sup>.

### **Summary**

The FinYHKÄ™ operational model describes the support structures at the international, national, regional and operational unit levels, which are prerequisites for evidence-based practice. These support structures ensure the necessary conditions for the production and availability of reliable evidence, ensuring the competence of the nursing personnel, and the development,

implementation, evaluation and monitoring of evidence-based consistent practices. Nursing professionals also have a key responsibility to act in accordance with evidence-based consistent practices. Ultimately, this is the only way to ensure that the treatment of citizens who use health care and social services is evidence-based.

## 5.2 Development and implementation process of evidence-based consistent practice

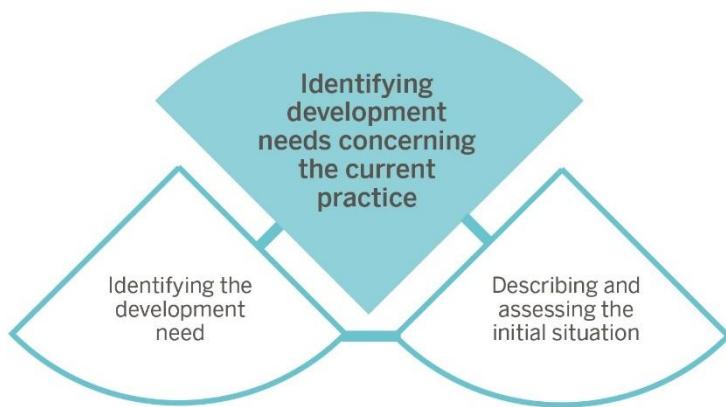
In the FinYHKÄ™ operational model, the development of evidence-based consistent practices is a process that comprises four main stages: 1) Identifying development needs concerning the current practice, 2) Planning the development and implementation of the consistent practice, 3) Developing and implementing the consistent practice, 4) Monitoring and evaluating the consistent practice<sup>4</sup> (Figure 4). The process stages of the FinYHKÄ operational model are based on the stages described in the KTA framework and the JBI EBHC model<sup>5,44,45,51</sup>.



Figure 4. The process of developing an evidence-based consistent practice.

### 5.2.1 Identifying development needs concerning the current practice

The stage of identifying development needs concerning the current practice involves an assessment of why the practice needs to be developed and what needs to be developed about the current practice, and describing and assessing the initial situation concerning the current practice (Figure 5). This first stage in the process helps to identify the development need and assess the extent of the change. The information gathered at this stage helps to assess resource needs during practical development and implementation, as well as to support the nursing personnel in committing to the upcoming change.



**Figure 5. Identifying development needs concerning the current practice.**

### **Identifying the development need**

At the beginning of the development process, the key is to identify why the practice should be developed and standardised<sup>82</sup>. The starting point for the development need may involve compelling circumstances (e.g. laws and regulations) that could be related to the patient's legal right to receive information about pain relief options in the context of end-of-life care, for example. The development process can also be based on some other identified need, such as motivation and the need to develop operations based on feedback or the assessment of operations.<sup>83</sup> In both of these situations, a more detailed examination of the development needs is essential<sup>32,44,84,85</sup>.

Monitoring and evaluation data collected at the national, regional or operational unit level, such as registers, statistics and feedback (internal evidence) are key to identifying development needs. These instruments of knowledge-based management help to identify development needs and their underlying causes<sup>39</sup>, which may be related to the organisation's structures, processes and treatment outcomes<sup>54,86</sup>:

- Structural factors, such as
  - ineffective internal structures in health care systems<sup>61</sup>, such as hierarchical decision-making<sup>85</sup>
  - health care costs and their rise<sup>44,85,87</sup>, which calls for studying cheaper but equally effective alternatives<sup>88</sup>
  - resource shortages or their incorrect allocation<sup>4,54,83</sup>, for example, insufficient number of nursing professionals or inadequate competence
  - development needs related to support structures that facilitate evidence-based practices<sup>18</sup>, such as a lack of mentoring or difficulties with access to databases.
- Process-related factors, such as
  - outdated<sup>9,17,44,89</sup> or otherwise unjustified practices<sup>61</sup>
  - unjustified variation in practices or nursing interventions<sup>4,54,83</sup>
  - observed deficiencies or risks related to practices or nursing interventions<sup>44,85,88,89</sup>
  - feedback from nursing personnel<sup>4,64</sup> on problems related to current practices or practices recognised elsewhere as more suitable<sup>44</sup>
  - the need to develop the appropriateness and/or feasibility of nursing interventions<sup>5</sup>.

- Factors related to outcomes, such as
  - dissatisfaction with the quality of care, interventions (e.g. treatment method) or services and outcomes<sup>4,54,83</sup>
  - the treatment is not sufficiently effective and/or meaningful<sup>5</sup>
  - feedback from clients<sup>4</sup> indicating that the treatment or service does not meet their needs<sup>44,88</sup>.

**EXAMPLE: Knowledge-based management and its significance in evidence-based practices.**

An operational unit recognises, based on monitoring data, that a significant number of laboratory samples with incorrect results have been collected annually. The identified reason for this is the clients' inadequate preparation for the collection of laboratory samples. This has resulted in additional costs due to having to collect new samples from clients. In the worst case, incorrect laboratory results may have led to a wrong diagnosis and/or errors in treatment. Based on its review, the operational unit has recognised that there are deficiencies and unjustified variations in its client guidance. Consequently, it has identified the need for an evidence-based consistent practice and instructions for providing guidance to clients with respect to the collection of laboratory samples (e.g. fasting or avoiding physical exertion before sample collection). Following the development and implementation of consistent evidence-based practices, the organisation can use internal evidence to determine whether the number of incorrect laboratory samples has decreased from the previous level.

An examination of current practices can also be initiated in response to changes observed with the help of internal evidence (e.g. observation of increased incidence of pressure ulcers in an emergency department). When the situation is identified, evidence is sought (e.g. an NRF Clinical Practice Guideline<sup>90</sup>) and the current practices used in the emergency department are compared with the practices described in the clinical practice guideline, for example. A plan is then drawn up for developing an evidence-based consistent practice to reduce the incidence of pressure ulcers.

A development need can also be identified when a national clinical practice guideline is published on a given subject<sup>4,44,85</sup>. In such cases, current practice within the unit is evaluated to determine whether it aligns with the guideline. If the practice is consistent with the guideline, the assessment focuses on whether everyone acts according to the consistent practice or whether there is unjustified variation in the actions of individuals nursing professionals.<sup>39</sup>

**EXAMPLE: Operating in accordance with a clinical practice guideline.**

The NRF clinical practice guideline<sup>90</sup> recommends that a pressure ulcer risk assessment be carried out as soon as possible after the customer arrives for treatment. The risk assessment is repeated regularly to identify customers with an elevated risk of developing a pressure ulcer. When reviewing patient records, it is observed that the risk assessment has been carried out randomly. As a result of the assessment, the operational unit draws up a plan for the systematic assessment of pressure ulcer risk in accordance with the clinical practice guideline. The aim is to identify all clients at risk of pressure ulcers and initiate preventive measures for them in accordance with the clinical practice guideline.

The nursing personnel must be actively involved in identifying the need for development. When the nursing personnel are involved in the development effort right from the planning stage, they will understand the opportunities and benefits of the new practice, perceive their participation as

meaningful and feel that the change is implemented together<sup>47-49</sup>. The active participation of clients in the identification of development needs also has a favourable impact on the progress of the process<sup>30</sup>.

## **Describing and assessing the initial situation**

In addition to identifying the need for development, it is necessary to provide a broader description and assessment of the initial situation and the underlying factors contributing to the development need. Assessing the current practices and procedures helps to identify and describe the initial situation (e.g. pressure ulcer incidence) against which the results of the development effort can later be compared and evaluated<sup>4,91</sup>. In addition, assessing the initial situation helps to identify what the current practice is and what are the related structures (e.g. resources) and processes (e.g. procedures). This helps to assess the extent of the development need.

When describing and assessing the current practice, the following questions need to be considered:

1. What is the current practice and related operating guidelines, and the instructions provided to clients? Do practices vary between operational units? What resources and other structures are available?
2. How large is the change concerning the development of the current practices and who will be affected by the development of the practices?

The assessment of the initial situation helps to identify who will be affected by the development effort and how large the change or development need is likely to be. For example, is it a question of strengthening and embedding an existing practice or the partial or complete renewal of a practice?<sup>4</sup> The bigger the change, the more time, resources and nursing personnel commitment to the change process is required<sup>16,39</sup>. In these cases, it is usually a good idea to break up the change into smaller parts, which also makes it easier for the nursing personnel to commit to the change process.

3. Who will benefit from the development of the current practices?

When developing practices and services, it is necessary to assess what the benefits are and who will benefit from their development and renewal. When the nursing personnel recognises that the development effort is necessary and understands its benefits, it is easier for them to accept the situation and be committed to the upcoming change<sup>5,18,44</sup>. Those who will be directly or indirectly affected by the change should be engaged in the development process as broadly as possible.

In evidence-based practices, the elimination of ineffective and outdated care practices benefits clients, health care and social service units, and nursing personnel. Clients receive the greatest benefit from the implementation of evidence-based and effective nursing interventions and services that are meaningful for the clients. The benefit for the clients is primarily reflected in treatment outcomes<sup>9,16,18,44</sup>. Operational units benefit from the removal of unnecessary and ineffective practices, allowing the reallocation of freed-up resources for better use<sup>9,16</sup>. Nursing personnel benefit, among other things, from having a solid foundation and reinforcement for their actions, as well as a clearer understanding of the impact that a consistent, evidence-based approach has on patient outcomes (e.g.

shorter hospital stays). This has also been shown to promote job satisfaction among nursing personnel.<sup>18,92</sup>

**EXAMPLE: Understanding the need for development.**

Nursing professionals may feel that repositioning clients at certain intervals (e.g. every 2–3 hours) is too time-consuming and that there are insufficient resources for this. Nursing professionals' understanding of the importance of repositioning can be strengthened by together reviewing the clinical practice guideline on the prevention and identification of pressure ulcers and the justifications contained in the clinical practice guideline for the implementation of repositioning and its significance<sup>90</sup>. Understanding the significance of a consistent practice makes it easier to commit to the practice.

4. What factors promote or hinder the development of the current practices, i.e. what are the facilitators and barriers?

The bigger the change, the more time and resources it takes. Identifying the facilitators and barriers to change, such as the implementation and sustainment of a consistent evidence-based practice, is therefore important right from the stage of assessing the development needs associated with the current practices. Facilitators support the success of the change, while identifying barriers helps to anticipate and solve problems that inevitably arise during the change process.<sup>65,93</sup> Identifying facilitators and barriers (Table 3) helps later in the planning stage to develop different targeted strategies for the implementation of the practice and promoting its sustainment, and they are therefore important to the success of the change<sup>5,44,61,64</sup>.

**Table 3. Facilitators and barriers to the development and implementation of evidence-based practices.**<sup>30,44,58,59,63,75,93-96</sup>

CONTEXT	FACILITATORS AND BARRIERS
<b>Related to the health care system</b>	<b>context:</b> e.g. organisational culture, the actions of nurse leaders, access to reliable sources of information, personnel turnover and flow of information <b>resources:</b> e.g. support structures, adequacy of nursing personnel in relation to the workload <b>factors external to the operational unit:</b> e.g. cooperation between researchers and decision-makers <b>monitoring and evaluation of operations:</b> e.g. participation of nursing personnel in the monitoring and evaluation of operations
<b>Personnel-related</b>	<b>attitudes of the nursing personnel:</b> e.g. resistance to change, attitude towards research evidence <b>the nursing personnel's knowledge and skills:</b> e.g. awareness of clinical practice guidelines and how they can be used in practice, understanding of evidence-based practice <b>operating methods and practices:</b> e.g. nursing personnel competence and tasks, mutual collaboration, training opportunities

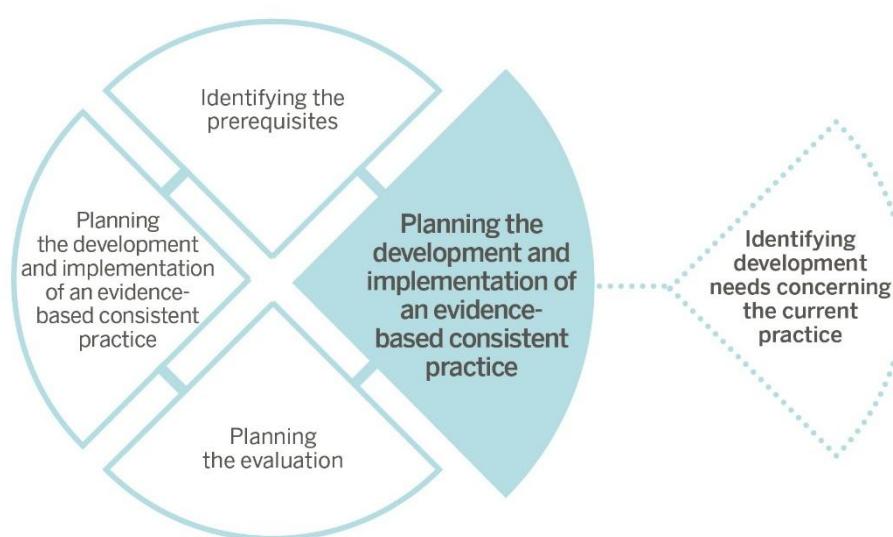
<b>Related to the intervention (e.g. treatment method, practice)</b>	<b>availability of evidence assessed as reliable:</b> e.g. evidence-based clinical practice guideline or systematic review
	<b>feasibility and applicability of the evidence-based intervention:</b> e.g. applicability to the context or the care of the client

## Summary

The need to develop current practices can have several underlying causes that may be related to the structures of the operational unit, its processes, or the outcomes of care, interventions and services, or all of these. When assessing the need for development, it is necessary to identify why the change is necessary (e.g. based on internal evidence or the observation that the current practice does not correspond to the practice recommended in a published clinical practice guideline), how large is the change, who are affected by the change, who benefits from the change and what are the potential facilitators and barriers to the change in the operational unit.

### 5.2.2 Planning the development and implementation of a consistent practice

After assessing the need to develop current practices, the next step is to draw up a plan for the development and implementation of an evidence-based consistent practice (Figure 6). The information collected in the previous stage about the development need, its extent and the initial situation is used as the basis for planning. Drawing up a plan is a key part of the development process. It helps to identify the tasks, responsibilities and resource needs of the different parties involved and prepare for the implementation and sustainment of the new or updated consistent practice. The planning of the evidence-based consistent practice should start at the same time as the planning of the development, as they are closely linked to each other.



**Figure 6. Planning the development and implementation of an evidence-based consistent practice.**

Planning the development and implementation of an evidence-based consistent practice comprises three main stages: a) identifying the prerequisites, b) planning the development and implementation of the evidence-based consistent practice, and c) planning the evaluation of the practice (Table 4). These stages and their content are discussed in more detail in this chapter. A well-executed planning process helps to anticipate factors that are relevant to the practical development, implementation and sustainment of an evidence-based consistent practice. In the implementation of a new practice, it is important that the entire workplace community understands the need for the change and is involved in it.<sup>47-49</sup> This is particularly the case if the change concerns the operations of the entire unit.

**Table 4. The stages of planning the development and implementation of a consistent practice.**

PLANNING STAGE	CONTENT
<b>a. Identifying the prerequisites</b>	<p>Managing the planning and development process</p> <p>Identifying and recruiting change agents and engaging them to planning and development</p> <p>Knowledge of the context: analysis and consideration of the context</p> <p>Identifying factors that affect the success of development and implementation</p> <p>Assessing the applicability of the evidence and implementation methods in relation to the context</p>
<b>b. Planning the development and implementation of the evidence-based consistent practice</b>	<p>Utilising evidence in the development of the consistent practice</p> <p>Specifying the tasks and responsibilities of the various parties involved</p> <p>Supporting the commitment of nursing personnel</p> <p>Assessing the necessary resources</p> <p>Planning of targeted strategies and methods to support implementation and sustainment</p>
<b>c. Planning the evaluation of the practice</b>	<p>Examining structures</p> <p>Examining processes</p> <p>Examining outcomes</p>

### **a. Identifying the prerequisites**

The planning of the practice that will be developed or updated begins with the specification of the prerequisites<sup>47-49</sup> and the responsibilities of the various parties involved<sup>6</sup> in accordance with normalisation process theory.

#### *Managing the planning and development process*

When starting the planning of the development process and implementation, the first tasks are to agree on practical matters concerning process management and related responsibilities. The

larger the change sought in the development of consistent practices, the more important it is to consider establishing a separate project, in which case a project manager and, if necessary, a steering group<sup>16,44,85</sup> is appointed for the project. Depending on the extent of the change, the tasks of the project manager or steering group include ensuring the implementation of the following:

- designating the project manager<sup>44,97</sup> and the other participants in the planning and development process, and specifying their tasks and responsibilities<sup>44,98</sup>
- utilising up-to-date evidence, such as a related clinical practice guideline or systematic review, in the development of the consistent practice<sup>18,44,64</sup>
- identifying facilitators and barriers to development<sup>98</sup>
- securing resources<sup>44,64,97</sup>
- project scheduling and schedule management<sup>98</sup>
- communicating the progress and results of the project to the project participants and those who are concerned by the change<sup>44,98</sup>.

*Identifying and recruiting change agents and engaging them to planning and development*

In the planning of the development and implementation of evidence-based consistent practices, it is important to consider the involvement of those who are key to the change, also known as change agents, in the planning process at an early stage and how to engage them to the development and implementation of consistent practices<sup>44,47,48</sup>. Identifying change agents and engaging them to the development of operations supports the success of the change. They act as facilitators whose tasks include promoting and strengthening the development and implementation of evidence-based practices<sup>16,18,58,98,99</sup> and training the nursing personnel<sup>18,96</sup>. Change agents also contribute to ensuring that all of the parties concerned are aware of the purpose and objectives of the change, so that those who are affected by the change are likely to accept the change<sup>18,44</sup>.

Change agents may include, for example, nursing leaders in various expert positions and at different levels, especially front-line managers<sup>18,44</sup>. While change agents may adopt different approaches, certain common characteristics in their practices can be identified. They support the purposeful progress of the change towards the stated goals, while simultaneously striving to establish trust-based relationships with those participating in the development effort. With this in mind, the key aspects of change agents' activities include communication, interactive problem solving and building effective collaborative relationships.<sup>44,64,98</sup> Supporting evidence-based practices also requires that the change agents themselves are experts in the evidence-based practice<sup>18,58,96,97,99</sup>. A change agent can also act as a project manager in the development project. If the change concerns the entire organisation, the project manager is usually a person with sufficient decision-making authority with regard to persons potentially hired for the project and other resources. In this case, the change agents support the project manager, for example, by helping to create support structures for development<sup>18,97,98</sup>.

*Knowledge of the context: analysis and consideration of the context*

Knowledge of the context in which the evidence-based consistent practice is being developed and implemented requires a careful analysis of the context and related factors. The information is used in the development of the evidence-based consistent practice and the planning of its implementation. The collected information helps to assess the applicability of the evidence and tailor the practice to the context, as well as take into account the complexity and

multidimensionality of the context<sup>5,47,48</sup>. The information also helps to develop targeted implementation strategies that take into account the context-related facilitators and barriers to evidence-based practice. Careful analysis of the context also promotes the success of future change when other consistent practices are developed based on evidence. When analysing the context, the aforementioned change agents play a key role, as they usually have a good understanding of the context in which they operate and in which the development of the consistent practices takes place. In addition to other context-related factors, they often also identify potential facilitators and barriers to change.<sup>64,98,100</sup>

Attention should be paid to the following factors in the analysis of the context<sup>44</sup>:

- the context and its structure: for example, the composition of nursing personnel, the adequacy of staffing in relation to the workload, and decision-making methods (centralised or decentralised)
- workplace culture: for example, the values and beliefs of the workplace
- communication: for example, workplace communication and the dissemination of information
- nursing leadership: for example, concrete support provided by nursing leaders
- resources: for example, financial resources
- knowledge, skills and attitudes: for example, the competence and motivation of the nursing personnel
- commitment to quality control: for example, whether the results of operations are monitored
- multidisciplinary collaboration: for example, collaboration and trust between different professionals.

One example of a framework that can be utilised in the analysis of the context is a SWOT analysis, which is an assessment of the strengths, weaknesses, opportunities and threats associated with the activity<sup>44</sup>. Other tools for context analysis have also been developed<sup>101</sup>.

#### *Identifying factors that affect the success of development and implementation*

The factors that influence the development and implementation of a consistent practice and its successful embedding and sustainment are highly similar to each other<sup>102</sup>. They need to be identified at an early stage of the planning process so that they can be taken into account when drawing up the plan. The factors can be divided as follows, for example:

##### *1. Innovation-related factors*, for example the extent to which

- clients accept and the nursing intervention or practice and adhere to it<sup>103</sup>
- the intervention is suitable or applicable to the context<sup>16,28,53,61,102,103</sup>
- the intervention is effective, or what its benefits are<sup>53,102</sup>
- the intervention can be implemented and embedded precisely and accurately in the context<sup>61,97,102</sup>

##### *2. Context-related factors*, such as

- atmosphere and organisational culture<sup>28,97,102-104</sup>
- nursing leadership and support provided by the nursing leaders<sup>24,61,65,66,85,97,102</sup>
- the characteristics of the context, such as its structure, processes and practices<sup>16,24,61,85,102,103</sup>
- the sensitivity to changes of the system and practices<sup>97,102</sup>

**3. Factors related to the capacity for change**, such as

- the use of internal and external facilitators, such as experts<sup>18,102</sup>
- resources, such as financing and nursing personnel competence<sup>28,61,85,97,102-104</sup>
- support from the community and stakeholders<sup>102</sup>

**4. Factors related to processes and interaction**, such as

- the planning of operations<sup>102</sup>
- the commitment and cooperation of professionals<sup>18,102</sup>
- shared decision-making with stakeholders<sup>85,102</sup>
- coordination of rules and practices<sup>102</sup>
- evaluation and feedback practices<sup>16,18,97,102</sup>
- training<sup>18,65,97,102</sup>

*Assessing the applicability of the evidence and implementation methods in relation to the context*

When planning an evidence-based consistent practice, the evidence and its applicability to the context must be examined. The assessment focuses on whether, for example, the relevant clinical practice guideline can be applied as such, or whether there are justified reasons why it is not fully applicable to the context in question<sup>5,61</sup>.

**EXAMPLE: Assessing the applicability of evidence in relation to the context.**

A wellbeing services county is developing processes for the hospital discharge of elderly clients. In the development project, they utilise the NRF clinical practice guideline *Safe discharge of an elderly patient from hospital* (2020)<sup>105</sup>. Many of the elderly residents in the home care services under development are dementia patients. Consequently, the special needs of elderly dementia patients must be taken into account when planning a consistent practice for hospital discharge. With this in mind, the assessment focuses on how guidance related to discharge is implemented and how the implementation of treatment for dementia patients living alone at home, and the safety of living at home are taken into consideration, for example.

In addition to the applicability of evidence, differences between contexts can affect the planning of an evidence-based consistent practice and its implementation. Although the aim is to create nationally consistent evidence-based practices, it is important to consider that the health care and social services units and treatment contexts differ between the wellbeing services counties. The differences between the wellbeing services counties are due to, among other things, the special characteristics of the content of health care and social services, such as the different focus areas of specialised and primary health care services and differences in the composition of nursing personnel. For this reason, the evidence-based consistent practice and its implementation must be planned in such a way that it is applicable to each context. If a consistent practice has been developed in a context other than the one in which it is about to be implemented, the applicability of the practice must be evaluated, along with how it can be tailored to the new context<sup>82</sup>.

**b. Planning the development and implementation of an evidence-based consistent practice**

Once the preconditions and the responsibilities of the various parties involved have been identified, a plan is formulated to guide the development, implementation, as well as embedding

and sustainment of the evidence-based consistent practice. The plan describes the following aspects: utilising evidence in the development of the consistent practice, specifying the tasks and responsibilities of the different parties involved, supporting the engagement and commitment of nursing personnel, assessing the resources needed, and planning targeted strategies and methods to support implementation and sustainment.

### *Utilising evidence in the development of the consistent practice*

Evidence-based consistent practices must be based on the best possible evidence, such as a clinical practice guideline or a systematic review<sup>4,55,80,106</sup>, in which studies on the subject have been comprehensively and systematically reviewed and their quality has been assessed before conclusions are drawn. If there is no clinical practice guideline or systematic review on the subject, or only little research has been carried out on the subject, an individual study assessed to be of good quality or expert consensus on the subject may serve as evidence if it is found to represent the best possible evidence on the subject at the time following a critical assessment<sup>98,107</sup>. In these situations, however, it should always be kept in mind that the evidence is not strong, and the risk of bias is higher than usual<sup>106</sup>. If the development need is extensive, it is important to ensure that the evidence concerning the subject of development has been reviewed sufficiently comprehensively. Consequently, an extensive development effort may need to be based on multiple clinical practice guidelines and systematic reviews so that the evidence covers the entire consistent practice being developed.

It should be noted that, in accordance with the basic principle of evidence-based practice, the evidence that is utilised must represent data that can be used to form the best possible understanding of the subject being examined. Consequently, when assessing the effectiveness of a method, for example, research data produced in randomised controlled studies and such data synthesised in a systematic review represents the strongest evidence. When assessing the available evidence and its utilisation, the assessment must therefore always be carried out in relation to the subject and perspective to which answers are sought.<sup>5,24,107</sup>

In addition to external evidence, it is also necessary to assess the need to utilise internal evidence collected in the wellbeing services county. Internal evidence can help assess the adequacy of resources or related costs with regard to the implementation of a consistent practice, for example.

When planning a consistent practice, comparisons of current practice and the best possible evidence should be utilised, and a detailed plan should be drawn up regarding the necessary changes and the preparation of any supplementary material, such as concrete procedures, instructions intended for clients, and checklists. It is important to consider the context in the planning process and to tailor the practice so that it is applicable to the context in question.

### **EXAMPLE: An evidence-based consistent practice.**

Surgical procedures and the associated use of anaesthesia involve a risk of inadvertent hypothermia, which may cause significant harm to the client. The NRF clinical practice guideline *Maintaining normothermia in adult patients during the perioperative care process (2022)*<sup>108</sup> recommends the use of IV fluids warmed with a fluid warmer as one method for the prevention of hypothermia. When drawing up the plan, it is necessary to assess the current practice, i.e. do all anaesthesia nurses who treat clients at risk of hypothermia warm the clients' IV fluids with a fluid warmer. If the practice is not consistent, a plan is drawn up to standardise the practice. The prerequisite for the implementation of the aforementioned evidence-based

practice is that the surgical department has fluid warmers available for all clients at risk of hypothermia and that the anaesthesia nurses have the necessary competence to use them.

### *Specifying the tasks and responsibilities of the various parties involved*

In the development and implementation of an evidence-based consistent practice, each party involved has their own role, and specifying these roles is key when planning the development and implementation of a consistent practice. The FinAME™ action model of expertise can be utilised in the specification of tasks and responsibilities. The model describes the roles and responsibilities of different groups of professionals, taking into account the special characteristics of health care and social services in Finland<sup>6</sup>. When specifying tasks and responsibilities, it is important to always consider the competence of the nursing personnel and individual differences in competencies related to evidence-based practice.

When specifying the tasks and responsibilities of the various parties involved, in addition to focusing on the development and implementation of the practice itself, it is also necessary to specify responsibilities with regard to the following tasks, for example: communication, updating patient instructions and procedures, monitoring, and evaluation. The plan describes the responsibilities of each party (e.g. persons in managerial and administrative roles, project manager, change agent) and professional group (e.g. registered nurses, practical nurses) involved in the implementation and sustainment of the consistent practice. This can be done with the help of the FinAME™ action model of expertise, for instance.<sup>6</sup>

### *Supporting the commitment of nursing personnel*

Commitment among nursing personnel is one of the facilitators in the development, implementation and sustainment of consistent, evidence-based practices. Therefore, attention should be paid to the commitment of nursing personnel to ensuring that everyone adheres to the consistent practice - starting already at the planning stage. A central aspect of commitment is that nursing personnel understand the rationale behind changes in practices. This understanding forms the foundation for recognising the need for change. Examples of methods that support evidence implementation and promote the commitment of nursing personnel include:

- support from change agents, mentors and opinion leaders<sup>5,18,96</sup>: support from those familiar with the subject motivates others.
- the training of nursing personnel<sup>18,27,65,69,97</sup>: especially if the change involves learning an entirely new intervention or practice. Training ensures that the nursing personnel operate in accordance with the agreed-upon consistent practice<sup>9</sup>
- integration of evidence into decision support<sup>5,27,97,109</sup>: for example, reminders in electronic decision support help nursing personnel to take evidence and the consistent practice into consideration in their clinical decision-making, thereby accelerating decision-making and promoting patient and client safety and the quality of care<sup>109</sup>
- client expectations and needs: when clients are aware of the correct practice, they know to expect it from the nursing personnel. This has been demonstrated, for example, in adherence to hand hygiene.<sup>83</sup>

#### **EXAMPLE: The activities of mentors.**

Mentors with expertise in evidence-based practice play a key role in supporting the commitment of nursing personnel. They can participate in training and motivating the nursing personnel, for instance. They can also serve as examples for the development of the

organisational culture so that it facilitates the use of evidence-based practices. Their tasks can also include the collection of data on operations and reporting the data to nursing leaders to support the development of operations.<sup>96</sup>

### *Assessing the necessary resources*

In order for the implementation of the plan to be possible, sufficient resources must be available for the development and implementation of an evidence-based consistent practice. When drawing up the plan, the following aspects of the resources are described, for example:

- nursing personnel: consider the composition and number of nursing personnel in relation to the change and its extent. The key is to consider what additional human resource needs arise from the development and implementation of the practice.
- nursing personnel competence: training and ensuring the competence of nursing personnel are necessary in order for the personnel to have the ability to act in accordance with the agreed-upon consistent practice<sup>9</sup>. When the plan is drawn up, it is important to consider the current state of nursing personnel competence and the nature of the change; how large is the change from the current practice to the new practice, and does it concern a single professional group or constitute a change that will be implemented on a multidisciplinary basis. The plan must therefore assess the extent of training that will potentially be necessary, and what other methods of ensuring nursing personnel competence are required for the development and implementation of the practice.
- the necessary equipment and related costs.
- the available time and its relationship to the scope of the development of the consistent practice. In addition, it is necessary to assess whether the new consistent practice will take up the nursing personnel's time or free up time.

### *Planning of targeted strategies and methods to support implementation and sustainment*

The implementation and sustainment of an evidence-based consistent practice should be assessed right from the early stages of the development project. There are several ways of promoting implementation and sustainment. They can be related to expertise and its development as well as the operational unit and its operations. A combination of multiple methods is often used<sup>110</sup>. Examples of individual methods mentioned in various studies include the following:

- the example set by opinion leaders<sup>95,96,104,110</sup>
- clear roles and responsibilities for experts<sup>6,95</sup>
- support from nursing leaders and the example they set<sup>18,65,66,69,95,97,110</sup>
- the organisation's support<sup>95</sup>
- training<sup>18,65,77,91,95,110</sup>
- research clubs<sup>91,104,110</sup>
- electronic or manual reminders<sup>24,97,104,109,110</sup>
- multidisciplinary teams<sup>110</sup>
- financial incentives<sup>110</sup>
- monitoring and evaluation of practices, and feedback<sup>18,95,97,110</sup>

If only one of the above methods is used, there is a risk that other perspectives related to evidence implementation and promoting evidence-based practice will be ignored. For this reason, combining multiple strategies and methods to support implementation usually produces the best

results. When selecting methods, the challenges related to the context and the cost-effectiveness of the methods need to be taken into account.<sup>100</sup> The selection of suitable methods is also influenced by the type of consistent practice in question and the context in which it will be implemented<sup>83</sup>. If the implementation involves only minor changes to the current practice, such as individual specifications to patient instructions, its sustainment is easier. However, if the change concerns the implementation of new patient instructions across the entire wellbeing services county or collaborative area, the implementation usually requires more detailed planning regarding the methods used to support implementation and sustainment. A broader change usually requires the simultaneous use of several different methods that support implementation.

### **c. Planning the evaluation of the practice**

The evaluation of the practice being developed, and its implementation, and the utilisation of data concerning the practice, needs to be assessed right from the planning stage. Evaluation based on internal evidence provides data on the outcomes of the development effort and its sustainment as part of the activities of the operational unit. Evaluation needs to be carried out throughout the development and implementation process, and it also needs to be continued after the development and implementation stages have been completed.

In the planning of evaluation, attention should be paid to how the structures and processes of the operational unit support the achievement of the outcomes sought, and to what extent have the targeted outcomes been accomplished. When planning the implementation of evaluation and the indicators to be used, the following questions can be considered, for example:

#### *Examining structures*

- Are the resources intended for the development of the evidence-based consistent practice sufficient and correctly allocated?
- Are the structures supporting the competence of the nursing personnel sufficient?
- Are the resources intended for the implementation of the evidence-based consistent practice sufficient?

#### *Examining processes*

- How will the process of developing and implementing the evidence-based consistent practice, and its success, be evaluated?
- How will the consistent implementation of the new practice be monitored and evaluated?
- How will the practice remain consistent over time?
- How will sustainment be monitored and evaluated?
- How will the competence of the nursing personnel be evaluated?

#### *Examining outcomes*

- Were the outcomes sought through the evidence-based consistent practice accomplished?
- What is the nursing personnel's perception of the new practice that was implemented? What about clients?
- Does the competence of the nursing personnel meet the prerequisites for the high-quality implementation of the consistent practice?

In the stage of planning evaluation, it is important to:

- *agree on the responsibilities*, i.e. who is responsible for the different stages of the development process and the progress of the process.
- *choose indicators* for monitoring and evaluating the development process and the standardisation of practices.
- consider *reporting and the use of the collected data*
  - what will be reported, to whom, how, and where?
  - what will be the scope of the reporting, and
  - how the data collected through reporting is intended to be used.<sup>111</sup>

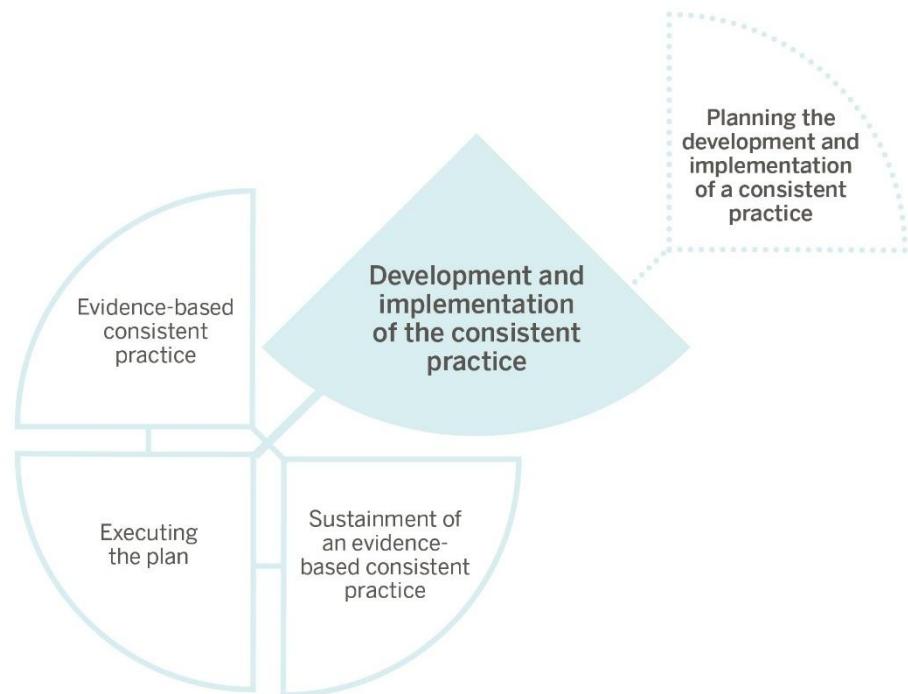
In addition to planning the evaluation of the new practice and its implementation, it is important to also plan the overall evaluation of the development and implementation process. The data collected in the evaluation can be put to use in subsequent development processes.

## **Summary**

The planning stage is a key part of the development process. The scope of the plan is based on comparing the current practice with up-to-date evidence, such as a clinical practice guideline. The planning stage takes into account the prerequisites for a successful plan, the context, the participation and training of nursing personnel, as well as support for nursing personnel commitment. Several methods are utilised in implementation, such as mentor support, personnel training, the integration of evidence into decision support, and the involvement of nursing personnel and clients.

### 5.2.3 Development and implementation of the consistent practice

The next stage is the development of the consistent practice and its implementation. This stage includes the execution of the plan and the sustainment of interventions (Figure 7).



**Figure 7. Development and implementation of the consistent practice**

#### Executing the plan

Once a plan has been drawn up for the development, implementation and sustainment of the evidence-based consistent practice, the next stage is to execute the plan. It is important to ensure that all those whose work will be affected in some way by the new practice are aware of the plan and their part in it. When nursing personnel participate in the execution of the plan, they have the opportunity to influence the new practice and its implementation. Thus, for example, local circumstances can be adequately taken into consideration. This promotes the commitment of the nursing personnel to the new practice and, at the same time, ensures the sustainment of the new practice for all of the nursing personnel.

As previously stated, the scope of the new consistent practice may vary depending on the results of assessing the need to develop the current practice and the plan drawn up on the basis of that assessment. The scope may be narrow, such as updating patient instructions to provide guidance for the client's self-care, or a unit's internal instructions concerning a particular nursing intervention. The new consistent practice may also be something that concerns a broader operational unit and includes related instructions, such as guidelines for the prevention of pressure ulcers or a digital clinical pathway developed for a given client group in a wellbeing services county.

Once **the evidence-based consistent practice** described in the plan has been created or updated and the factors facilitating its successful implementation and sustainment have been

identified, it is important to ensure that the consistent practice is known to all of the parties concerned and that they have the competence required for its implementation. When nursing leaders serve as examples and as enablers of evidence-based practice, the nursing personnel can see their actions as important and meaningful. Mentors also play a key role in supporting the nursing personnel in committing to the implementation of the consistent practice<sup>4,18,95</sup>. Implementation and sustainment are promoted when nursing personnel understand the opportunities and benefits of the consistent practice<sup>47-49</sup>.

**EXAMPLE: Development and implementation of telehealth education for clients<sup>112</sup>.**

A wellbeing services county decided to develop remote services. The implementation of these services covered the entire wellbeing services county, meaning the change targeted a broad group of healthcare professionals and citizens. The personnel were engaged in the change right from the planning stage, which gave them the opportunity to influence both the facility planning and the procurement of the necessary equipment. Tailored training was organised for the personnel according to their respective competence needs. When planning and implementing the remote services, the wellbeing services county assessed the suitability of each context and client group for the implementation of the telehealth education method, secured the availability of the necessary equipment and ensured that information security would be taken into account in the client's use of the services. The personnel were trained to assess whether telehealth education was suitable for each client, taking into account the client's overall situation and capabilities.

**Sustainment of an evidence-based consistent practice**

The benefits of an evidence-based practice can only be achieved if evidence-based practices are embedded into the organisation's or unit's normal activities<sup>16,28,96,102,113</sup>. In the case of an evidence-based consistent practice that concerns the activities of an entire wellbeing services county, for example, the implementation and sustainment<sup>16,29</sup> of the consistent practice must be ensured by linking it to the wellbeing services county's strategy<sup>30,97</sup> and by monitoring and evaluating how the operations have changed<sup>16,18</sup>. The implementation and sustainment of the new practice will be successful if attention is paid to long-term support for the practice. The actions of individual members of the nursing personnel will only produce the desired outcomes when nursing leaders at different levels support and ensure the implementation and sustainment of evidence-based practices.<sup>24,97</sup> Various strategies (e.g. guidance, feedback) and reminders (e.g. checklist) can be developed to support compliance with the evidence-based consistent practice. These can help ensure that the practices are applied as agreed<sup>102</sup>.

Embedding a new evidence-based consistent practice (such as a change in a nursing intervention or practice) in the normal operations of an organisation or unit requires patience and persistence. This requires the commitment of all of the parties involved. The commitment of nursing personnel is more readily attained when they perceive the new practice as beneficial for themselves and the clients. The benefits can be manifested in, for example, time savings and/or better outcomes in the care of clients.<sup>114</sup> If the consistent practice is related to the care of clients, such as a new nursing intervention or patient instructions, it is the responsibility of health care professionals to explain the reasons for the change in care practices to the client. This supports the clients' commitment to care based on the new practice<sup>83</sup>.

The sustainment of a new consistent practice (e.g. practice or nursing intervention) in the normal operations of an organisation or unit is not easy<sup>102,115</sup>. It takes time<sup>114</sup> and resources, such as funding<sup>97,102</sup>. Even if the implementation of the new nursing intervention or practice is successful,

it does not always become embedded in normal operations, as people often revert to the old intervention or practice inadvertently and without realising it<sup>58</sup>. For example, nursing personnel adapting the practice according to their personal preferences or ideas can emerge as a problem. If this happens, it is possible that the benefits offered by the new consistent practice or nursing intervention are gradually lost.<sup>102</sup> Collecting internal evidence is therefore essential for addressing unjustified variations in a timely manner.

## Summary

After the plan has been drawn up, the next stage is the development, implementation and sustainment of the evidence-based consistent practice. The aim is to embed the consistent practice to everyday work. Implementation and sustainment are not easy, especially in the case of a significant change from previous practices that requires many different measures. A number of methods to support implementation and sustainment have been identified. Combining several methods usually produces the best outcomes.

### 5.2.4 Evaluation of the consistent practice

In the monitoring and evaluation of the consistent practice, attention must be paid to the evaluation of structures, processes and outcomes, collecting monitoring data to support evaluation and determining what indicators of the evidence-based practice are used in the evaluation. (Figure 8).

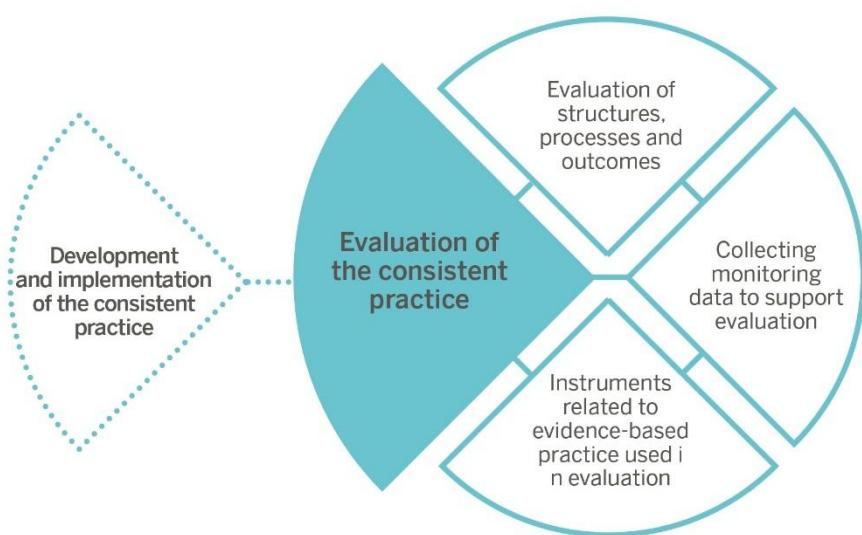


Figure 8. The process of monitoring and evaluating a consistent practice.

#### Evaluation of structures, processes and outcomes

Evaluating the development and implementation of consistent practices is important but challenging<sup>44,82</sup>. The collection of monitoring data and evaluation based on the data must be planned and implemented throughout the development process, as described in the above-mentioned stages of the FInYHKÄ™ operational model. Evaluation starts right from the first stage when the current practice and the need to develop it are described and assessed, and it continues throughout the development and implementation process until the evaluation of the outcome<sup>44,82</sup>.

In the overall evaluation of the development and implementation process, attention should be paid to which factors have supported the development, implementation and sustainment of consistent practices, and which factors have caused problems during the process<sup>16,83</sup>. Data on the successes or failures of the development process can be used in subsequent development processes, which makes it important to report them as accurately as possible. If the evaluation is focused solely on assessing the outcomes of the consistent practice that was developed, it becomes too much of a straightforward assessment of causal relationships. For example, it does not take into account the impact that factors related to the implementation of the developed practice, and the context, have on the outcome<sup>82</sup>.

When an evidence-based consistent practice and its development and implementation are evaluated, attention should be paid to factors that are similar to those which the evaluation was already focused on when assessing the development needs (see section 5.2.1), i.e. structures, processes and the outcomes of the consistent practice<sup>83</sup> (Info box 5). In other words, attention should be paid to 1) what kinds of resources and support structures are in place and do they correspond to the need, 2) why is there a need to develop the operations and what is it about them that needs to be developed, and 3) what kinds of outcomes have been achieved with the new consistent practice. For example, have the resources (structure) of development and implementation been allocated appropriately, have practices (processes) been standardised, and has the quality of treatment or services (outcomes) improved.<sup>9,16,18,83</sup> When the outcomes are evaluated, the initial situation and the outcomes achieved with the consistent practice are compared, which provides data on whether the situation has changed in the desired direction<sup>44</sup>.

Within the development and implementation process, it is also important to focus the evaluation on the extent to which the practice is embedded into normal operations. Furthermore, the evaluation should consider the accuracy and consistency with which each nursing professional adheres to the practice over time<sup>16,102</sup>, whether the evidence-based consistent practice has been integrated into normal operations<sup>16,97,102,115</sup> and connected to the clinical pathways of different client groups, thus ensuring that there is no unjustified variation in practices<sup>19</sup>.

#### **EXAMPLE: The significance of clinical pathways.**

The implementation of clinical pathways in hospitals can have an impact on the treatment outcomes of clients in particular, but also on factors related to the activities of professionals and the organisation. Based on internal evidence, it has been observed that clinical pathways can reduce complications related to hospital-acquired infections (e.g. pressure ulcers, urinary tract infections, surgical site infections), duration of treatment, pharmacotherapy costs and hospital costs.<sup>19</sup>

If the resources used for development and sustainment (including monitoring and evaluation) are not sufficient, they cannot produce the best possible outcome. Insufficient resources make sustainment challenging or even impossible and lead to nursing personnel reverting to the old practices without realising it.<sup>16,28,29</sup> Therefore, special attention should also be paid to the sustainment of the practice and the evaluation of sustainment right from the planning stage onwards<sup>28,29,82</sup>, and operations in accordance with the consistent practice should be monitored and evaluated on a regular basis<sup>44,91,95,115</sup>.

In addition to the above, the evaluation should encompass the competence of the nursing personnel and the supporting structures and processes. This ensures that all of the nursing

personnel have sufficient competence in the new or updated evidence-based practice that has been implemented. Based on the evaluation of competence, additional training should be organised for the nursing personnel or other structures supporting competence should be developed (e.g. mentoring, orientation training practices) with the aim of ensuring that everyone's activities remain aligned with the consistent practice. In addition to evaluating competence related to the consistent practice, attention should be paid to the general competence of nursing personnel and leaders relating to evidence-based practices and supporting that competence.

#### INFO BOX 5: Subjects of evaluation.

<b>AREAS OF EVALUATION</b>	<p>Evaluation can be targeted at:</p> <ul style="list-style-type: none"><li>• <b>current practice:</b> e.g. whether the current practice corresponds to the evidence, whether the resources in use correspond to the needs, what kinds of outcomes have been achieved</li><li>• <b>the development and implementation process of the evidence-based consistent practice:</b> e.g. how smooth was the development process, did the resources correspond to the needs, were the desired objectives achieved</li><li>• <b>the evidence-based consistent practice that was developed:</b> e.g. does the practice correspond to the evidence and the development need, is the practice implemented consistently and as agreed (fidelity), what kinds of outcomes are achieved in relation to the objectives, is the practice embedded in normal operations</li><li>• <b>the competence of nursing personnel and leaders:</b> e.g. whether training and orientation are sufficient, are there development needs with regard to competence in the evidence-based practice</li></ul>
----------------------------	--

#### Collecting monitoring data to support evaluation

The continuous evaluation of activities and the monitoring data collected as the basis of that evaluation (e.g. the incidence of wound infections or pressure ulcers and changes therein over a given period of time) help to identify potential new development needs, for which research evidence is then sought, and a new development process is initiated. Monitoring data also helps to identify the need to update existing practices and evaluate whether the existing practices are up-to-date. As new research data is accumulated continuously, it is also advisable to reevaluate, from time to time, whether previously developed consistent practices are still up-to-date, particularly if there are changes in the context, if new interventions are developed in health care, or if an updated or new clinical practice guideline is published. In other words, the process is continuous in nature.<sup>16,28</sup>

Knowledge-based management tools that can be used in evaluation:

- monitoring data collected in the operational unit or wellbeing services county (e.g. pressure ulcer incidence, client feedback, data on resources and costs)
- national quality indicators (e.g. the national diabetes register<sup>116</sup>)
- validated indicators (e.g. knowledge tests to assess nursing personnel competence<sup>78</sup>; PROM and PREM indicators, such as quality-of-life indicators).

Growing attention has been given to the involvement of healthcare service users in the evaluation of care and services, alongside their development. Health care units in which the organisational culture supports the participation of nursing personnel and clients, and whose internal networks are effective, have been more successful than others in the implementation of new practices.<sup>30</sup> However, careful consideration must be given to how clients participate in the activities to avoid overloading them<sup>83</sup>. Client participation in the development of health care and social services is also important because the services are specifically for them. The Finnish Institute for Health and Welfare recommends the use of client forums, client panels and user councils in evaluation activities<sup>117</sup>.

#### **EXAMPLE: Client participation in the development of treatment.**

When interventions or services are developed, clients should be requested to provide regular feedback on whether the treatment outcomes or services have improved<sup>28</sup>. Client feedback represents internal evidence, which helps nursing leaders, for example, identify development areas within their area of responsibility. When interpreting feedback, it is important to keep in mind that people's experiences and perceptions can vary significantly. If the feedback is almost exclusively positive or negative, the development of the practice has either reached the objectives or the development should continue.

#### **Instruments related to evidence-based practice used in evaluation**

One aspect of evaluating evidence-based practices is assessing how the operational unit supports and enables the evidence-based practice. Several instruments have been developed to evaluate this<sup>118,119</sup>. For example, a review by Haavisto et al. (2023)<sup>78</sup> identified 17 instruments for evaluating the competence of healthcare professionals with regard to evidence-based practice. Most of the instruments developed for the monitoring of evidence-based practices are in the English language and they do not take into account cultural differences, for example<sup>118</sup>. For this reason, there is a need in Finland for instruments that are in the Finnish language and developed specifically to be used in the Finnish operating culture. Several such instruments have been developed in recent years. Examples include the following:

- for competence assessment
  - a knowledge test indicator for use in training<sup>78</sup>
  - an indicator developed for assessing the competence of teachers in the field of health care and social services<sup>120</sup>
- a national instrument developed for the assessment of the status of evidence-based nursing<sup>20</sup>, which can be used to assess the organisational-level support structures for evidence-based nursing as well as the competence, attitudes and practices of the nursing personnel with respect to evidence-based practice.

#### **Summary**

The development and implementation of an evidence-based consistent practice requires time and resources. Effective practices will not become embedded into normal operations unless their implementation and outcomes are monitored and evaluated on a regular basis. In monitoring and evaluation, attention must be paid not only to the outcomes of development (e.g. the effectiveness of treatment), but also to the successes and failures during the development and implementation process and the structures that support the process. Identifying them contributes to the success of subsequent development projects.

## 5.2.5 Evidence-based decision-making

The FinYHKÄ™ operational model has been used above to describe how an evidence-based practice is developed, implemented, monitored and evaluated. When a practice is embedded in an operational unit, all nursing professionals have the same understanding and knowledge base in their work, which enables high-quality, safe and equal care for clients regardless of which professional the client meets when they need health care services.

The actualisation of evidence-based consistent practices is reflected in the workplace, when making decisions — both together with the client and in other tasks and situations related to nursing (for example, when negotiating the procedures of a multidisciplinary team) — the nurse's actions are guided by a jointly developed, evidence-based consistent practice. For instance, when discussing a client's care, the starting point for decision-making is the evidence and the consistent practice that has been formulated on the basis of that evidence and approved within the work community (e.g. an action plan or care procedure). For example, when a nursing professional has a client encounter, they assess the practice to be applied and, together with the client and, if necessary, other professionals participating in the treatment of the client, make the best possible decision with regard to the client's individual situation and the outcome of the treatment. When assessing this as a whole and assessing which practice is justified, the nursing professional uses their expertise and clinical experience, taking into account not only the evidence, i.e. consistent practice, but also the client's needs and expectations, factors related to the context of care and resources for care, and the views of the client's family members, if the client so wishes. In a clinical decision-making situation, it is key that the client participates in the decision-making as an equal participant (Figure 9).<sup>4,7</sup>

### EXAMPLE: Involvement of family members in decision-making.

A person with chronic obstructive pulmonary disease is in end-of-life care at a health centre's inpatient ward, where the care of clients in palliative and end-of-life care, and interaction with their family members, have been developed based on evidence<sup>121</sup>. In accordance with the evidence-based consistent practice used in the unit, the family members of the elderly client participate in decision-making concerning pain relief, for example when deciding on the use of strong pain medication. The charge nurse discusses the matter with the client and explains why it would be important for the family members to participate in the discussion on the implementation of pain management. However, the client is not willing to have their family members participate in the discussions in question. The client and the nurse together agree that the family members will be informed about pain management, but they will not participate in situations where decisions are made about the implementation of pain management.



Figure 9. Evidence-based decision-making.

If it is justified, the nursing professional may deviate from the jointly agreed practice to the extent that is necessary. The client must be provided with sufficient information about treatment options and their benefits or the risks associated with them. This enables the patient to participate in decision-making regarding their treatment.<sup>122</sup>

**EXAMPLE: Deviating from an evidence-based consistent practice.**

The organisation has developed self-care guidance practices for COPD patients based on the NRF clinical practice guideline (2018)<sup>123</sup>. According to the agreed-upon practice, smoking cessation must be discussed with each COPD patient, and they must be encouraged to quit smoking and remain smoke-free. From the previous entries in a client's health record, the nurse sees that the client has no history of smoking. Based on this information, the nurse makes a justified decision not to provide guidance on smoking cessation to the client in question, which frees up appointment time for responding to the client's individual needs. This makes it possible for the nurse to ask about the client's mood, for example, and discuss their ability to cope with their situation, which is something that the nurse has been particularly concerned about with this client.

The client may also have several different long-term illnesses, for example. In this case, an evidence-based practice developed for the treatment of an individual disease may not be sufficient as a basis for decision-making on treatment. Instead, the nursing professional must have the ability to identify and combine information concerning different practices.<sup>28</sup>

**EXAMPLE: Evidence-based self-care guidance for a person with multiple illnesses.**

The clinical decision support system installed in the patient information system helps the nursing professional identify the various needs of a person with multiple illnesses and base their self-care guidance on evidence. From the patient information system, the nursing professional receives reminders based on clinical practice guidelines that are activated when the decision support system combines the client's measurement results with the recommendations of the clinical practice guideline. The decision support reminders help the nursing professional discuss the key content areas of guidance and focus the guidance activities according to the individual situation of the client during their appointment.

## **Summary**

In decision-making concerning a client's treatment, the nursing professional must take into account not only the evidence and evidence-based consistent practice but also the client's needs and expectations and factors related to the treatment context and resources. Together with the client, the nursing professional uses their expertise and the assessment of the client's individual situation to arrive at a tailored solution that is justified and represents the best possible decision with regard to the outcome of the client's treatment.

## 6 IN CONCLUSION

Evidence-based practice in health care and social services is not separate from other activities or based on the preferences of an individual operator. It is decision-making that utilises the best possible evidence in such a way that the promotion of health, the treatment and prevention of illnesses and rehabilitation, for example, produce the best possible outcome<sup>69</sup>, especially for the client, but also with respect to the nursing personnel and the effectiveness and cost-efficiency of operations. Ultimately, it is a matter of what decision-making is based on – whether it is based on the best available evidence or, for example, familiar and potentially outdated practices or beliefs.

The larger the change, the more time, support structures and processes are required for evidence implementation, consistent practices created on the basis of evidence and their sustainment. Various theories and operational models have been developed internationally, and they serve as roadmaps for the development, implementation and sustainment of evidence-based consistent practices.<sup>16,53,65,77</sup> Some of the models are generic, which means that they do not make the different stages of implementation and sustainment sufficiently concrete. The JBI Model of Evidence-based Health Care is an example of a generic model. It describes the stages required for the implementation of evidence-based health care but does not explain their content in more detail. The stage describing the implementation and sustainment of evidence includes factors that support evidence implementation. These factors include taking the context into account, supporting change, and evaluating processes and outcomes.<sup>5</sup> However, they are only discussed at a general level in terms of their content.

The aim of updating the FinYHKÄ™ operational model was to describe the theoretical background of the operational model and make the different stages of the operational model more concrete. In the update, attention was also paid to support structures and processes that are helpful in the different stages of the operational model. Although the FinYHKÄ™ operational model describes evidence implementation in health care and the examples are from the context of nursing, the operational model can also be used in social services when developing evidence-based practices for home care, round-the-clock care or services for the disabled, for instance.

One prerequisite for evidence-based practice is that there is sufficient reliable evidence available on the topic being developed. As research data is continuously produced in very large quantities, there is a need for experts who synthesise the existing research data on a subject so that it can be put into action in the form of clinical practice guidelines, for instance. Compiling research evidence, such as the preparation of a clinical practice guideline, requires expertise in research methods, clinical expertise and subject matter expertise, as well as a systematic and transparent process that also includes a quality assurance process built through collaboration between experts<sup>124</sup>. Finding and compiling evidence is not an individual nursing professional's responsibility, as they do not have the time to perform that task alongside their clinical duties. Evidence synthesis also requires special competence, such as strong expertise in research methods. Instead, nursing professionals must have access to the best possible evidence (e.g. clinical practice guidelines) that can be used to develop evidence-based consistent practices in the workplace community and which can serve as the basis for clinical decision-making.<sup>18,74,78,81,125</sup>

Unfortunately, there is an unreasonably long delay when it comes to the practical application of research evidence.<sup>30</sup> In some cases, the delay can be as long as 15–17 years<sup>13,91,126</sup>. According

to studies, an estimated 60% of treatment in health care is based on evidence or expert consensus on treatment, 30% of treatment is ineffective and 10% of treatment causes actual harm to the patient<sup>11</sup>. When treatment is not based on the best possible evidence, the treatment outcomes are not optimal, treatment times become prolonged, and the costs of treatment increase due to ineffective treatments<sup>103</sup>. Similarly, the funds invested in research are wasted if the data obtained from studies is not put to use in the development of health care and social services and treatment.

Monitoring data can be used to assess whether the existing practices are aligned with the evidence, and if not, how the practices should be developed. Putting evidence into practice requires support structures that facilitate its implementation and sustainment. Various studies have highlighted the significance of organisational culture, support provided by nursing leaders and the competence of the nursing personnel in particular. Consistent practices and clinical pathways developed on the basis of evidence-based clinical practice guidelines<sup>30</sup> have been found to reduce the overuse, underuse or misuse of services. Thus, they reduce health care costs and unjustified variations in treatment, while supporting clients' access to information on issues pertaining to their treatment.<sup>19</sup>

Personnel turnover has increased in recent times in the case of both nursing personnel and leaders, which poses a risk to the permanence of changes and operational units' ability to promote evidence-based health care<sup>95,113</sup>. Health care and social services professionals' retirement and attrition from the field is a universal problem. It also has an impact on the actualisation of evidence-based health care. As personnel turnover is high, evidence-based consistent practices can be used in orientation training to help ensure that there is no unjustified variation in the treatment of clients even when there are changes in personnel. This also serves job rotation, which is necessary in many of today's organisations due to continuous nursing personnel shortages.

As described in the FinYHKÄ™ operational model, evidence-based practices in health care require various support structures at the national and organisational levels, for example. Sufficient resources must be allocated to the development of operations so that the development, implementation and sustainment of consistent practices and evidence-based nursing are possible. This is the only way to accomplish the objectives that evidence-based practices aim to achieve in order to ensure patient safety and high-quality health care and social services.

# REFERENCES

1. STM. Johtamisella vaikuttavuutta ja vetovoimaa hoitotyöhön. Hoitotyön kansallinen toimintaohjelma 2009–2011. Sosiaali- ja terveysministeriön julkaisuja 2009:18. Yliopistopaino, Helsinki. Saatavilla <http://urn.fi/URN:ISBN:978-952-00-2919-7> (2009).
2. STM. Sosiaali- ja terveydenhuollon Kansallinen kehittämishojelma KASTE 2012-2015. Loppuraportti. Sosiaali- ja terveysministeriö, Helsinki. Saatavilla <http://urn.fi/URN:ISBN:978-952-00-3699-7> (2016).
3. Finlex®. Ajantasainen lainsääädäntö: Tervydenhuoltolaki 1326/2010. Saatavilla <https://www.finlex.fi/fi/laki/ajantasa/2010/20101326>.
4. Holopainen A, Korhonen T, Miettinen M, Pelkonen M, Perälä M-L. Hoitotyön käytännöt yhtenäisiksi – toimintamalli näyttöön perustuvien käytäntöjen kehittämiseksi. *Premissi* 2010; 1: 38-45.
5. Jordan Z, Lockwood C, Munn Z, Aromataris E. The updated Joanna Briggs Institute Model of Evidence-Based Healthcare. *Int J Evid Based Healthc* 2019; 17(1): 58-71.
6. Tuomikoski AM, Parisod H, Kotila J, Palomaa M, Suutarla A, Holopainen A. FinAME- asiantuntijuusmalli™ näyttöön perustuvan hoitotyön tukirakenteena. *Tutkiva Hoitotyö* 2023; 21(1): 20-28.
7. Connor L, Dean J, McNett M, Tydings DM, Shrout A, Gorsuch PF, Hole A, Moore L, Brown R, Melnyk BM, Gallagher-Ford L. Evidence-based practice improves patient outcomes and healthcare system return on investment: Findings from a scoping review. *Worldviews Evid Based Nurs* 2023; 20(1): 6-15.
8. Emparanza JI, Cabello JB, Burles AJE. Does evidence-based practice improve patient outcomes? An analysis of a natural experiment in a Spanish hospital. *J Eval Clin Pract* 2015; 21(6): 1059-1065.
9. Ost K, Blalock C, Fagan M, Sweeney KM, Miller-Hoover SR. Aligning Organizational Culture and Infrastructure to Support Evidence-Based Practice. *Critical care nurse* 2020; 40(3): 59-63.
10. Westerlund A, Sundberg L, Nilsen P. Implementation of Implementation Science Knowledge: The Research-Practice Gap Paradox. 2019, p. 332-334.
11. Braithwaite J, Glasziou P, Westbrook J. The three numbers you need to know about healthcare: the 60-30-10 Challenge. *BMC Med* 2020; 18(1): 102-102.
12. Hanney SR, Castle-Clarke S, Grant J, Guthrie S, Henshall C, Mestre-Ferrandiz J, Pistollato M, Pollitt A, Sussex J, Wooding S. How long does biomedical research take? Studying the time taken between biomedical and health research and its translation into products, policy, and practice. *Health Res Policy Syst* 2015; 13: 1-1.
13. Melnyk BM. The Current Research to Evidence-Based Practice Time Gap Is Now 15 Instead of 17 Years: Urgent Action Is Needed. 2021, p. 318-319.
14. Furuki H, Sonoda N, Morimoto A. Factors related to the knowledge and skills of evidence-based practice among nurses worldwide: A scoping review. *Worldviews Evid Based Nurs* 2023; 20(1): 16-26.
15. Moullin JC, Sabater-Hernández D, Fernandez-Llimos F, Benrimoj SI. A systematic review of implementation frameworks of innovations in healthcare and resulting generic implementation framework. *Health Res Policy Syst* 2015; 13(1): 16-16.
16. Rapport F, Clay-Williams R, Churruca K, Shih P, Hogden A, Braithwaite J. The struggle of translating science into action: Foundational concepts of implementation science. *J Eval Clin Pract* 2018; 24(1): 117-126.
17. Stevens KR. The impact of evidence-based practice in nursing and the next big ideas. *Online J Issues Nurs* 2013; 18(2): 4-4.
18. Gawlinski A. The power of clinical nursing research: engage clinicians, improve patients' lives, and forge a professional legacy. *Am J Crit Care* 2008; 17(4): 315-326; quiz 327.
19. Shabaninejad H, Alidoost S, Delgoshaei B. Identifying and classifying indicators affected by performing clinical pathways in hospitals: a scoping review. *Int J Evid Based Healthc* 2018; 16(1): 3-24.

20. Parisod H, Stolt M, Holopainen A, Siltanen H, Pasanen M, Suhonen R. Development and psychometric testing of the actualisation of evidence-based nursing instrument. *J Clin Nurs* 2024; 33(6): 2237-2248.
21. Hotus-raportti 2022. Näyttöön perustuvan hoitotyön ja sen tukirakenteiden toteutuminen Suomessa. Saatavilla <https://www.hotus.fi/wp-content/uploads/2022/06/npt-raportti-hotus-2022-web.pdf> (2022).
22. Chiwaula CH, Chinkhata M, Kamera H, Haruzivishe C. Evidence Based Practice: A Concept Analysis. *Health Syst Policy Res* 2018; 5(3): 75-75.
23. Cleary-Holdforth J, Fineout-Overholt E, O'Mathúna D. How nursing stakeholders in the Republic of Ireland define evidence-based practice and why it matters. *Worldviews Evid Based Nurs* 2022; 19(5): 396-404.
24. Lockwood C. Applying Theory Informed Global Trends in a Collaborative Model for Organizational Evidence-based Healthcare. *J Korean Acad Nurs Adm* 2017; 23: 111-111.
25. Rycroft-Malone J, Seers K, Titchen A, Harvey G, Kitson A, McCormack B. What counts as evidence in evidence-based practice? *J Adv Nurs* 2004; 47(1): 81-90.
26. Aromataris E, Pearson A. The systematic review: an overview. *Am J Nurs* 2014; 114(3): 53-58.
27. Munn Z, Stern C, Porritt K, Lockwood C, Aromataris E, Jordan Z. Evidence transfer: ensuring end users are aware of, have access to, and understand the evidence. *Int J Evid Based Healthc* 2018; 16(2): 83-89.
28. Chambers DA, Glasgow RE, Stange KC. The dynamic sustainability framework: addressing the paradox of sustainment amid ongoing change. *Implement Sci* 2013; 8: 117-117.
29. Tricco AC, Ashoor HM, Cardoso R, MacDonald H, Cogo E, Kastner M, Perrier L, McKibbon A, Grimshaw JM, Straus SE. Sustainability of knowledge translation interventions in healthcare decision-making: a scoping review. *Implement Sci* 2016; 11.
30. Innis J, Dryden-Palmer K, Perreira T, Berta W. How do health care organizations take on best practices? A scoping literature review. *Int J Evid Based Healthc* 2015; 13(4): 254-272.
31. McInnes E, Harvey G, Duff L, Fennelly G, Seers K, Clark E. Implementing evidence-based practice in clinical situations. *Nurs Stand* 2001; 15(41): 40-44.
32. Melnyk BM, Fineout-Overholt E, Stillwell SB, Williamson KM. Evidence-based practice: step by step: the seven steps of evidence-based practice. *Am J Nurs* 2010; 110(1): 51-53.
33. Levin RF, Lunney M, Krainovich-Miller B. Improving diagnostic accuracy using an evidence-based nursing model. *Int J Nurs Terminol Classif* 2004; 15(4): 114-122.
34. Suhonen R, Ylönen M, Jalonens L, Holopainen A. Leading evidence-based practice in Finnish healthcare. Teoksessa: Hafsteinsdóttir TB, Jónsdóttir H, Kirkevold M, Leino-Kilpi H, Lomborg K, Hallberg IR (toim). Leadership in nursing: Experiences from the European Nordic Countries. 2019, p. 83-98.
35. Korhonen A, Ojanperä H, Järvinen R, Puhto S, Syrjälä H, Lukkarila P, Holopainen A. Käsihygienian seuranta ja kehittäminen - yhtenäisen toimintamallin tausta, kehittäminen ja käytöönotto. Raportti 1/2020, Hoitotyön tutkimussäätiö. Saatavilla [www.hotus.fi/julkaisut-ja-raportit/](http://www.hotus.fi/julkaisut-ja-raportit/) (2020).
36. Mäki-Turja-Rostedt S, Leino-Kilpi H, Korhonen T, Vahlberg T, Haavisto E. Consistent practice for pressure ulcer prevention in long-term older people care: A quasi-experimental intervention study. *Scand J Caring Sci* 2021; 35(3): 962-978.
37. Kivilaakso N. Vauva- ja perhemyönteisyysohjelman jalkauttaminen neuvola- ja perhetyöhön Uramalliohjelman avulla.
38. Ikonen R, Parisod H, Tuomikoski A, Siltanen H, Hakulinen T, Holopainen A. Vauvamyönteisyyys ohjelma käyttöön - käsikirja yhtenäisten näyttöön perustuvien käytäntöjen kehittämiseen. Raportti 1/2019, Hoitotyön tutkimussäätiö & Terveyden ja hyvinvoinnin laitos. Saatavilla <https://www.hotus.fi/julkaisut-ja-raportit/> (2019).
39. Korhonen A, Jylhä V, Korhonen T, Holopainen A. *Näyttöön perustuva toiminta. Tarpeesta tuloksiin. Hoitotyön tutkimussäätiö & Skhole (Book on Demand)*, Saksa: Nordestedt. 2018.

40. Nilsen P. Making sense of implementation theories, models and frameworks. *Implement Sci* 2015; 10(1): 53-53.
41. Nadalin Penno L, Davies B, Graham ID, Backman C, MacDonald I, Bain J, Johnson AM, Moore J, Squires J. Identifying relevant concepts and factors for the sustainability of evidence-based practices within acute care contexts: a systematic review and theory analysis of selected sustainability frameworks. *Implement Sci* 2019; 14(1): 108-108.
42. Beyera GK, O'Brien J, Campbell S. Choosing a health behaviour theory or model for related research projects: a narrative review. *J Res Nurs* 2022; 27(5): 436-446.
43. Dusin J, Melanson A, Mische-Lawson L. Evidence-based practice models and frameworks in the healthcare setting: a scoping review. *BMJ open* 2023; 13(5): e071188-e071188.
44. Porritt K, McArthur A, Lockwood C, Munn Z. JBI's approach to evidence implementation: a 7-phase process model to support and guide getting evidence into practice. *JBI Evid Implement* 2023; 21(1): 3-13.
45. Field B, Booth A, Iltot I, Gerrish K. Using the Knowledge to Action Framework in practice: a citation analysis and systematic review. *Implement Sci* 2014; 9: 172-172.
46. May C, Finch T. Implementing, Embedding, and Integrating Practices: An Outline of Normalization Process Theory. *Sociology* 2009; 43(3): 535-554.
47. May C. Agency and implementation: understanding the embedding of healthcare innovations in practice. *Soc Sci Med* 2013; 78: 26-33.
48. May CR, Cummings A, Girling M, Bracher M, Mair FS, May CM, Murray E, Myall M, Rapley T, Finch T. Using Normalization Process Theory in feasibility studies and process evaluations of complex healthcare interventions: a systematic review. *Implement Sci* 2018; 13(1): 80-80.
49. Murray E, Treweek S, Pope C, MacFarlane A, Ballini L, Dowrick C, Finch T, Kennedy A, Mair F, O'Donnell C, Ong BN, Rapley T, Rogers A, May C. Normalisation process theory: a framework for developing, evaluating and implementing complex interventions. *BMC Med* 2010; 8: 63-63.
50. McEvoy R, Ballini L, Maltoni S, O'Donnell CA, Mair FS, Macfarlane A. A qualitative systematic review of studies using the normalization process theory to research implementation processes. *Implement Sci* 2014; 9: 2-2.
51. Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Caswell W, Robinson N. Lost in knowledge translation: time for a map? *The Journal of continuing education in the health professions* 2006; 26(1): 13-24.
52. Jordan Z, Pilla B, Porritt K, Munn Z, Aromataris E, Lockwood C. Turning the flywheel: mobilizing the JBI model of evidence-based healthcare. *JBI evidence implementation* 2023; 21(1): 96-100.
53. Mathieson A, Grande G, Luker K. Strategies, facilitators and barriers to implementation of evidence-based practice in community nursing: a systematic mixed-studies review and qualitative synthesis. *Prim Health Care Res Dev* 2019; 20: e6-e6.
54. Brand CA, Ibrahim JE, Cameron PA, Scott IA. Standards for health care: a necessary but unknown quantity. *The Medical journal of Australia* 2008; 189(5): 257-260.
55. Kislov R, Cummings G, Ehrenberg A, Gifford W, Harvey G, Kelly J, Kitson A, Pettersson L, Wallin L, Wilson P. From research evidence to "Evidence by Proxy"? Organizational enactment of evidence-based health care in four high-income countries. *Public Adm Rev* 2019; 79(5): 684-698.
56. THL. Tervydenhuollon kansalliset laaturekisterit. Saatavilla <https://thl.fi/aiheet/sote-palvelujen-johtaminen/arvointi-ja-seuranta/sote-tietopohja/tervydenhuollon-kansalliset-laaturekisterit>. (Viitattu 23.4.2024).
57. Juntila K, Peltokoski J, Tervo-heikkinen T, Mattila E, Lehtikunnas T, Koivunen M, Salmela S, Laitila M. Hoitotyön kansallinen vertaiskehittäminen (HoiVerKe). *Tutkiva Hoitotyö* 2020; 18(3): 34-37.
58. Li S-A, Jeffs L, Barwick M, Stevens B. Organizational contextual features that influence the implementation of evidence-based practices across healthcare settings: a systematic integrative review. *Syst Rev* 2018; 7(1): 72-72.

59. Cleary-Holdforth J, Leufer T, Baghdadi NA, Almegewly W. Organizational culture and readiness for evidence-based practice in the Kingdom of Saudi Arabia: A pre-experimental study. *J Nurs Manag* 2022; 30(8): 4560-4568.

60. Gollust SE, Seymour JW, Pany MJ, Goss A, Meisel ZF, Grande D. Mutual Distrust: Perspectives From Researchers and Policy Makers on the Research to Policy Gap in 2013 and Recommendations for the Future. *Inquiry* 2017; 54: 46958017705465-46958017705465.

61. Cassidy CE, Flynn R, Shuman CJ. Preparing Nursing Contexts for Evidence-Based Practice Implementation: Where Should We Go From Here? *Worldviews Evid Based Nurs* 2021; 18(2): 102-110.

62. Williams NJ, Glisson C, Hemmelgarn A, Green P. Mechanisms of Change in the ARC Organizational Strategy: Increasing Mental Health Clinicians' EBP Adoption Through Improved Organizational Culture and Capacity. *Adm Policy Ment Health* 2017; 44(2): 269-283.

63. Hosseini-Moghaddam F, Mohammadpour A, Bahri N, Mojalli M. Nursing managers' perspectives on facilitators of and barriers to evidence-based practice: A cross-sectional study. *Nurs Open* 2023; 10(9): 6237-6247.

64. Engle RL, Lopez ER, Gormley KE, Chan JA, Charns MP, Lukas CV. What roles do middle managers play in implementation of innovative practices? *Health Care Manage Rev* 2017; 42(1): 14-27.

65. Bianchi M, Bagnasco A, Bressan V, Michela, Mns B, Timmins F, Rossi S, Pellegrini R, Aleo G, Loredana, Medsc S. A review of the role of nurse leadership in promoting and sustaining evidence-based practice Professor of Nursing 4. *J Nurs Manag* 2018; 26(8): 918-932.

66. Birken S, Clary A, Tabriz AA, Turner K, Meza R, Zizzi A, Larson M, Walker J, Charns M. Middle managers' role in implementing evidence-based practices in healthcare: a systematic review. *Implement Sci* 2018; 13(1): 149-149.

67. Urquhart R, Kendell C, Folkes A, Reiman T, Grunfeld E, Porter GA. Making It Happen: Middle Managers' Roles in Innovation Implementation in Health Care. *Worldviews Evid Based Nurs* 2018; 15(6): 414-423.

68. Clavijo-Chamorro MZ, Romero-Zarallo G, Gómez-Luque A, López-Espuela F, Sanz-Martos S, López-Medina IM. Leadership as a Facilitator of Evidence Implementation by Nurse Managers: A Metasynthesis. *West J Nurs Res* 2022; 44(6): 567-581.

69. Kitson AL, Harvey G, Gifford W, Hunter SC, Kelly J, Cummings GG, Ehrenberg A, Kislov R, Pettersson L, Wallin L, Wilson P. How nursing leaders promote evidence-based practice implementation at point-of-care: A four-country exploratory study. *J Adv Nurs* 2021; 77(5): 2447-2457.

70. Furtado L, Coelho F, Mendonça N, Soares H, Gomes L, Sousa JP, Duarte H, Costeira C, Santos C, Araújo B. Exploring Professional Practice Environments and Organisational Context Factors Affecting Nurses' Adoption of Evidence-Based Practice: A Scoping Review. *Healthcare (Basel)* 2024; 12(2): 245-245.

71. van der Zijpp TJ, Niessen T, Eldh AC, Hawkes C, McMullan C, Mockford C, Wallin L, McCormack B, Rycroft-Malone J, Seers K. A Bridge Over Turbulent Waters: Illustrating the Interaction Between Managerial Leaders and Facilitators When Implementing Research Evidence. *Worldviews Evid Based Nurs* 2016; 13(1).

72. Renolen Å, Hjälmhult E, Høye S, Danbolt LJ, Kirkevold M. Creating room for evidence-based practice: Leader behavior in hospital wards. *Res Nurs Health* 2020; 43(1): 90-102.

73. Joseph HB, Issac A, George AG, Gautam G, Jiji M, Mondal S. Transitional Challenges and Role of Preceptor among New Nursing Graduates. *J Caring Sci* 2022; 11(2): 56-63.

74. Warren JI, Montgomery KL, Friedmann E. Three-Year Pre-Post Analysis of EBP Integration in a Magnet-Designated Community Hospital. *Worldviews Evid Based Nurs* 2016; 13(1): 50-58.

75. McArthur C, Bai Y, Hewston P, Giangregorio L, Straus S, Papaioannou A. Barriers and facilitators to implementing evidence-based guidelines in long-term care: a qualitative evidence synthesis. *Implement Sci* 2021; 16(1): 70-70.

76. Baixinho CL, Ferreira ÓR, Medeiros M, de Oliveira ESF. Participation of Nursing Students in Evidence-Based Practice Projects: Results of Two Focus Groups. *Int J Environ Res Public Health* 2022; 19(11): 6784-6784.

77. Duff J, Cullen L, Hanrahan K, Steelman V. Determinants of an evidence-based practice environment: an interpretive description. *Implement Sci Commun* 2020; 1: 85-85.

78. Haavisto E, Siltanen H, Tolvanen A, Holopainen A. Instruments for assessing healthcare professionals' knowledge and skills of evidence-based practice: A scoping review. *J Clin Nurs* 2023; 32(15-16): 4391-4407.

79. Belita E, Squires JE, Yost J, Ganann R, Burnett T, Dobbins M. Measures of evidence-informed decision-making competence attributes: a psychometric systematic review. *BMC Nurs* 2020; 19: 44-44.

80. Straus S, Haynes RB. Managing evidence-based knowledge: the need for reliable, relevant and readable resources. *CMAJ* 2009; 180(9): 942-945.

81. Heiwe S, Kajermo KN, Tyni-Lenné R, Guidetti S, Samuelsson M, Andersson I-L, Wengström Y. Evidence-based practice: attitudes, knowledge and behaviour among allied health care professionals. *Int J Qual Health Care* 2011; 23(2): 198-209.

82. Koivisto J. Käytännöt, arvointi ja "hyvys". *Yhteiskuntapolitiikka* 2009; 74(2): 167-173.

83. van Achterberg T, Schoonhoven L, Grol R. Nursing implementation science: how evidence-based nursing requires evidence-based implementation. *J Nurs Scholarsh* 2008; 40(4): 302-310.

84. Purdy IB, Melwak MA. Implementing evidence-based practice: a mantra for clinical change. *J Perinat Neonatal Nurs* 2009; 23(3): 261-263.

85. Kueny A, Shever LL, Lehan Mackin M, Titler MG. Facilitating the implementation of evidence- based practice through contextual support and nursing leadership. *J Healthc Leadersh* 2015; 7: 29-39.

86. Donabedian A. The quality of care. How can it be assessed? *JAMA* 1988; 260(12): 1743-1748. DOI: 10.1001/jama.260.12.1743.

87. Matveinen P. Terveydenhuollon menot ja rahoitus 2020: Koronaepidemian aiheuttama terveydenhuollon menojen kasvu näkyi etenkin erikoissairaanhoidon ja perusterveydenhuollon avohoidossa. *Tilastoraportti*, SVT: 18/2023. Saatavilla <https://urn.fi/URN:NBN:fi-fe202>.

88. Andermann A, Pang T, Newton JN, Davis A, Panisset U. Evidence for Health III: Making evidence-informed decisions that integrate values and context. *Health Res Policy Syst* 2016; 14: 16-16.

89. Kalisch BJ, Tschannen D, Lee H, Friese CR. Hospital variation in missed nursing care. *Am J Med Qual* 2011; 26(4): 291-299.

90. Hotus-hoitosuositus®. 2023. Painehaavan ehkäisy ja tunnistaminen aikuisilla. Hoitotyön tutkimussäätiön asettama työryhmä: Kinnunen U-M, Ahtiala M, Berg L, Iivanainen A, Seppänen S & Tervo-Heikkinen T. Saatavilla <https://www.hotus.fi/hoitosuositukset/>.

91. Fineout-Overholt E, Johnston L. Teaching EBP: implementation of evidence: moving from evidence to action. *Worldviews Evid Based Nurs* 2006; 3(4): 194-200.

92. Melnyk BM, Hsieh AP, Messinger J, Thomas B, Connor L, Gallagher-Ford L. Budgetary investment in evidence-based practice by chief nurses and stronger EBP cultures are associated with less turnover and better patient outcomes. *Worldviews Evid Based Nurs* 2023; 20(2): 162-171.

93. Shafaghat T, Imani Nasab MH, Bahrami MA, Kavosi Z, Roozrokh Arshadi Montazer M, Rahimi Zarchi MK, Bastani P. A mapping of facilitators and barriers to evidence-based management in health systems: a scoping review study. *Syst Rev* 2021; 10(1): 42-42.

94. Jun J, Kovner CT, Stimpfel AW. Barriers and facilitators of nurses' use of clinical practice guidelines: An integrative review. *Int J Nurs Stud* 2016; 60: 54-68.

95. Cowie J, Nicoll A, Dimova ED, Campbell P, Duncan EA. The barriers and facilitators influencing the sustainability of hospital-based interventions: A systematic review. *BMC Health Serv Res* 2020; 20(1): 1-27.

96. Ferren MD, Von Ah D, Menachemi N. EBP champion responsibilities and sustainability: A scoping review. *Nurs Manage* 2022; 53(8): 22-33.

97. Aarons GA, Ehrhart MG, Farahnak LR, Sklar M. Aligning leadership across systems and organizations to develop a strategic climate for evidence-based practice implementation. *Annu Rev Public Health* 2014; 35: 255-274.

98. Berta W, Cranley L, Dearing JW, Dogherty EJ, Squires JE, Estabrooks CA. Why (we think) facilitation works: insights from organizational learning theory. *Implement Sci* 2015; 10: 141-141.
99. Lizarondo L, McArthur A, Moola S, Albornos-Muñoz L, Badeaux J, Bennett M, Püschel VAdA, González-Monasterio EI, Mwita C, Perrenoud B, Porche D, Rodrigues R, Stannard D. Facilitation as a component of evidence implementation: a multinational perspective. *JBI Evid Implement* 2022; 20(3): 180-188.
100. Harvey G, Kitson A. Single Versus Multi-Faceted Implementation Strategies - Is There a Simple Answer to a Complex Question? A Response to Recent Commentaries and a Call to Action for Implementation Practitioners and Researchers. 2015, p. 215-217.
101. Rogers L, De Brún A, McAuliffe E. Defining and assessing context in healthcare implementation studies: a systematic review. *BMC Health Serv Res* 2020; 20(1): 591-591.
102. Wiltsey Stirman S, Kimberly J, Cook N, Calloway A, Castro F, Charns M. The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implement Sci* 2012; 7: 17-17.
103. Kennedy PJ, Leathley CM, Hughes CF. Clinical practice variation. *Med J Aust* 2010; 193(S8): S97-99.
104. Ominyi J, Agom D. A scoping systematic review of factors influencing evidence-based practice implementation in nursing. *WJARR* 2020; 5(3): 90-113.
105. Hotus-hoitosuositus®. 2020. Iäkkäään turvallinen kotiutuminen sairaalasta. Hoitotyön tutkimussäätiön asettama työryhmä: Palonen M, Kariniemi K, Peltola P, Pesonen H-M, Rantanen A & Siira H. Helsinki: Hoitotyön tutkimussäätiö. Saatavilla <https://www.hotus.fi/hoitosuositukset>.
106. Gillam S, Siriwardena AN. Evidence-based healthcare and quality improvement. *Qual Prim Care* 2014; 22(3): 125-132.
107. Pearson A, Wiechula R, Court A, Lockwood C. A re-consideration of what constitutes "evidence" in the healthcare professions. *Nurs Sci Q* 2007; 20(1): 85-88.
108. Hotus-hoitosuositus®. 2022. Aikuispotilaan normotermian ylläpito perioperatiivisen hoitoprosessin aikana. Hoitotyön tutkimussäätiön asettama työryhmä: Kajander-Unkuri S, Kouvalainen T, Niskanen O, Rantanen A, Rauta S, Rissanen K, Valkonen M. Helsinki: Hoitotyön tutkimussäätiö. Saatavilla <https://www.hotus.fi/hoitosuositukset/>.
109. Hamari L, Parisod H, Siltanen H, Heikkilä K, Kortteisto T, Kunnamo I, Pukkila H, Holopainen A. Clinical decision support in promoting evidence-based nursing in primary healthcare: a cross-sectional study in Finland. *JBI Evid Implement* 2023; 21(3): 294-300.
110. Yost J, Thompson D, Ganann R, Alowni F, Newman K, McKibbon A, Dobbins M, Ciliska D. Knowledge translation strategies for enhancing nurses' evidence-informed decision making: a scoping review. *Worldviews Evid Based Nurs* 2014; 11(3): 156-167.
111. Fineout-Overholt E, Gallagher-Ford L, Mazurek Melnyk B, Stillwell SB. Evidence-based practice, step by step: evaluating and disseminating the impact of an evidence-based intervention: show and tell. *Am J Nurs* 2011; 111(7): 56-59.
112. Hotus-hoitosuositus®. 2022. Etäyhteydellä toteutettava pitkäaikaissairautta sairastavan omahoidon ohjaus. Hoitotyön tutkimussäätiön asettama työryhmä: Virtanen H, Marin M, Hiltunen A-M, Kaila A, Kajula O & Kesänen J. Saatavilla <https://www.hotus.fi/hoitosuositukset>.
113. Pascoe KM, Petrescu-Prahova M, Steinman L, Bacci J, Mahorter S, Belza B, Weiner B. Exploring the impact of workforce turnover on the sustainability of evidence-based programs: A scoping review. *Implement Res Pract* 2021; 2: 26334895211034581-26334895211034581.
114. Brewster AL, Curry LA, Cherlin EJ, Talbert-Slagle K, Horwitz LI, Bradley EH. Integrating new practices: a qualitative study of how hospital innovations become routine. *Implement Sci* 2015; 10: 168-168.
115. Scudder AT, Taber-Thomas SM, Schaffner K, Pemberton JR, Hunter L, Herschell AD. A mixed-methods study of system-level sustainability of evidence-based practices in 12 large-scale implementation initiatives. *Health Res Policy Syst* 2017; 15(1): 102-102.
116. THL. Diabeteslaaturekisterin raportti. Saatavilla <https://repo.thl.fi/sites/laaturekisterit/diabetesrekisteri>.

117. THL. Asiakasarvointi. Saatavilla <https://thl.fi/tutkimus-ja-kehittaminen/tutkimukset-ja-hankkeet/sokra/hankkeet-ja-hanketuki/arvointi/asiakasarvointi>.
118. Silva AMd, Valentim DP, Martins AL, Padula RS. Instruments to Assess Evidence-Based Practice Among Health Care Professionals: A Systematic Review. *Health Educ Behav* 2023; 10901981231170154-10901981231170154.
119. Landsverk N, Olsen N, T B. Instruments measuring evidence-based practice behavior, attitudes, and self-efficacy among healthcare professionals: a systematic review of measurement properties. *Implement Sci* 2023; 18: 42.
120. Mikkonen K, Tuomikoski A-M, Sjögren T, Koivula M, Koskimäki M, Lähteenmäki M-L, Mäki-Hakola H, Wallin O, Sormunen M, Saaranen T, Koskinen C, Koskinen M, Salminen L, Holopainen A, Kääriäinen M. Development and testing of an instrument (HeSoEduCo) for health and social care educators' competence in professional education. *Nurse Educ Today* 2020; 84: 104239-104239.
121. Hotus-hoitosuositus®. 2023. Palliatiivisessa hoidossa ja saattohoidossa olevan potilaan läheisten kohtaaminen ja tukeminen. Hoitotyön tutkimussäätiön asettama työryhmä: Aho AL, Eironen S, Havusto J, Hökkä M & Kritz J. Helsinki: Hoitotyön tutkimussäätiö. Saatavilla <https://www.hotus.fi/hoitosuositukset/>.
122. Fowler FJ, Jr., Levin CA, Sepucha KR. Informing and involving patients to improve the quality of medical decisions. *Health affairs (Project Hope)* 2011; 30(4): 699-706.
123. Hotus-hoitosuositus®. 2018. Keuhkohtaumatautia sairastavan omahoidon ohjauksen sisällöt. Hoitotyön tutkimussäätiön asettama työryhmä: Heikkinen K, Kaistila T, Knaapi-Junnila S, Kukkonen M, Pohju A, Siltanen H & Juusela M. Helsinki: Hoitotyön tutkimussäätiö. Saatavilla <https://www.hotus.fi/hoitosuositukset>.
124. Siltanen H, Hamari L, Heikkilä K, Marin K, Parisod H, Holopainen A. Hoitosuositusten laadinta – käsikirja suositustyöryhmiille. Versio 3.0. Helsinki: Hoitotyön tutkimussäätiö. 2023.
125. Rudman A, Boström A-M, Wallin L, Gustavsson P, Ehrenberg A. Registered Nurses' Evidence-Based Practice Revisited: A Longitudinal Study in Mid-Career. *Worldviews on evidence-based nursing* 2020; 17(5): 348-355.
126. Morris ZS, Wooding S, Grant J. The answer is 17 years, what is the question: understanding time lags in translational research. *Journal of the Royal Society of Medicine* 2011; 104(12): 510-520.