

Master Thesis

Utrecht University, Clinical Health Sciences, Master Nursing Science

CONTRIBUTING FACTORS TO THE IMPLEMENTATION OF EVIDENCE BASED PRACTICE IN NURSING HOMES

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Date: June 29th 2018

Definitive version

Course: Master Thesis

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Publication magazine: BMJ Quality and safety

Amount of words: 3796

Criteria used for transparent publication: COREQ

Amount of words used for English abstract: 299

Amount of words for Dutch summary: 300

Abstract

Contributing factors of implementation of Evidence Based Practice in nursing homes.

Background: Nursing homes in the Netherlands struggle to improve quality of care and implement quality adjustments. In other healthcare settings Evidence Based Practice (EBP) shows improvement in quality of care and patient outcomes. EBP is not broadly implemented in nursing homes. Currently it is unknown what specific factors benefit the implementation of EBP in nursing homes.

Aim: Describe factors that contribute to the implementation of EBP in nursing homes and how these factors interrelate.

Method: A generic qualitative design was used with an interpretative descriptive approach. Study population consisted of managerial staff and care providers working in three Dutch nursing homes and experts on EBP and/or innovation in nursing homes. Data collection consisted of one focusgroup (n=5) and interviews (n=9). The i-PARIHS framework and the TICD Checklist were used as a base for data collection and a deductive analysis.

Results: Beneficial factors for the implementation of EBP were having an implementation plan, facilitation and support and keeping EBP close to practice. Besides having an organisational implementation plan, teams need to have a course of action as well. By keeping EBP relatable to daily practice, teams experience direct benefit for their client which motivates to keep using EBP. Facilitation should consist of educating staff, providing time and facilitate support to translate research results into practical actions.

Conclusion: EBP can be implemented if organisations are willing to invest and facilitate the implementation process to keep the teams motivated and experience success. By carefully implementing EBP, a step forward in professionalisation can be achieved.

Recommendations: Nursing homes should evaluate if the necessary skills and knowledge are present within the organisation before implementing EBP. Future research should focus on the generalization of the factors that are found and the effectiveness of implementations strategies.

Keywords: Evidence Based Practice(Mesh), Evidence Based Nursing(Mesh), Nursing Homes(Mesh)

Samenvatting

Bijdragende factoren in het implementeren van Evidence Based Practice in verpleeghuizen.

Achtergrond: Nederlandse verpleeghuizen hebben moeite om de kwaliteit van zorg te verbeteren. Evidence Based Practice (EBP) heeft in andere zorgsectoren een positieve invloed gehad op de kwaliteit van zorg en patiënten uitkomsten. EBP is nog niet breed geïmplementeerd in verpleeghuizen. Het is onbekend welke factoren specifiek van invloed zijn op de implementatie van EBP in verpleeghuizen.

Doelstelling: Het beschrijven van factoren die bijdragen aan de implementatie van EBP in verpleeghuizen en hoe deze factoren samenhangen.

Methode: Een generiek kwalitatief onderzoeksdesign is gebruikt met een beschrijvende en interpreterende aanpak. De studiepopulatie bestond uit stafmedewerkers beleid/kwaliteit, zorgverleners uit drie verschillende verpleeghuizen en experts in innovatie/implementatie in verpleeghuizen. Gegevens zijn verzameld door een focusgroep en negen interviews. Een combinatie van het i-PARIHS-raamwerk en de TICD-Checklist is gebruikt als basis voor de dataverzameling en de analyse.

Resultaten: Beïnvloedende factoren die met elkaar samenhangen zijn implementeren met een plan, EBP dichtbij de praktijk houden en facilitatie en ondersteuning. Deze factoren kunnen gezamenlijk een positieve invloed hebben op de implementatie van EBP. Door planmatig te implementeren en te faciliteren voelen teams zich ondersteund. Wanneer EBP praktisch wordt gemaakt en zorgverleners ervaren dat EBP bijdraagt aan een betere zorg voor de cliënt, stimuleert dit het gebruik van EBP.

Conclusie: EBP kan geïmplementeerd worden als organisaties willen faciliteren en investeren in het implementatie proces om de zorgteams gemotiveerd te krijgen, te houden en succes te ervaren. Ondersteuning zou moeten bestaan uit tijd, kennis over EBP en ondersteuning bij de verschillende stappen van EBP, waarbij het belangrijk is dat de vertaalslag tussen theorie en praktische toepassing wordt gemaakt.

Aanbevelingen: Verpleeghuizen zouden voorafgaand aan implementatie van EBP moeten evalueren of de benodigde vaardigheden en kennis aanwezig zijn en een implementatieplan opstellen. Toekomstig onderzoek moet zich richten op de effectiviteit van implementatie strategieën.

Trefwoorden: Evidence based practice, evidence based verplegen, verpleeghuizen.

Introduction

Dutch nursing homes struggle to improve quality of care and meet national quality-demands.¹ Current nursing home care is based on existing experience, education and traditions.² To improve the quality of care in Dutch nursing homes, the National Health Institute developed a quality-framework to stimulate nursing homes to implement quality improvements. One of the four items of this framework, is the use of scientific literature and guidelines.³ Meaning that the Dutch government demands nursing homes to implement the use of literature and scientific evidence in the future.³ The systematic use of scientific evidence in daily practice is known as Evidence Based Practice (EBP).

EBP is a problem-solving approach, integrating the best available research evidence, patient preferences and clinical expertise.⁴ Research shows that EBP leads to improvement of quality, patient outcomes, job satisfaction and reduces costs.⁵ In the field of nursing EBP is an upcoming trend, most visible in hospitals and least in elderly care like nursing homes.⁶

Sufficient literature is available describing factors that influence successful implementation of EBP in settings like hospitals. Known influential factors in hospitals are vision, skills, motivation, resources and the use of an implementation plan.⁷ In addition, the i-PARIHS framework describes factors that affect successful implementation of research into practice.⁸ These factors are the nature and type of evidence, the context in which the evidence is being introduced and the way the process is facilitated.⁹ In a systematic review seven domains of context were identified that prevent or enable quality improvement, such as EBP.¹⁰ If this knowledge is available, what impedes EBP implementation in nursing homes?

One explanation is that evidence cannot be exchanged easily between different settings because strategies to translate evidence to nursing home settings are unavailable.¹¹ Grol et al. suggest that implementation is context-sensitive and factors applicable in one setting, do not necessarily apply in other settings.¹² Too little is known about what strategies work in specific settings, such as nursing homes. Achterberg et al. state that determinants found in his study on evidence based nursing, are more general headings than setting specific factors and that future research should provide more setting-specific factors.¹³

There seems to be a knowledge gap to implement EBP in nursing homes. It is unknown how identified factors apply specifically to the context of nursing homes. If these specific factors are known, fitting implementation strategies can be developed.

In 2017 the EVIDENCE-project was launched, aiming to create an EBP-culture in nursing homes. A secondary aim is developing a manual for EBP-implementation in nursing home organisations.

This study aims to describe factors that contribute to the implementation of EBP in nursing homes and how these factors interrelate. The results of this study will be used for the development of the manual.

Method

Design

A generic qualitative design was used because in-depth methods were needed to extract factors experienced within nursing home settings that benefit the implementation of EBP.¹⁴ An interpretative descriptive approach provided flexibility to adapt suitable research methods for data collection.¹⁵

Population and domain

The study population consisted of care providers and managerial staff working in nursing homes participating in the EVIDENCE project, because employees were already engaged in EBP and could deliver input from experience. Perspective beyond a healthcare organisation was needed to extract contributing factors and interrelation. Therefore, experts on EBP and/or innovation in nursing homes were included. The combination of these three viewpoints provided a broad perspective of EBP-implementation in nursing homes.

Data collection

This study combined a focusgroup and nine semi-structured interviews. The focusgroup consisted of a homogenous group of managerial staff and stimulated the generation of more ideas and insight about the implementation of EBP through interaction. Interviews provided more detailed information.¹⁴

Five care providers and four experts were interviewed. Semi-structured interviews provided rich, detailed information from experiences whilst giving enough direction to extract relevant information.¹⁴ The combination of the two methods resulted in a deep and extensive understanding of the subject.^{16,17}

The interview guide was developed by combining determinants of the i-PARIHS framework⁸ and the seven domains of context described in the TICD checklist¹⁰ to create a format of the entire context in which EBP-implementation occurred. Included topics were patient related factors, how the organisation implements changes, evidence related factors, the use of

resources and incentives, the interaction between professionals, factors applying on individual health care providers and social and political factors (see table 1).¹⁰ Although all topics were the base for the interviews, depending on the participant group, more or less emphasis was put on topics.

Sample

A purposeful sampling design was used. For the participants employed in nursing homes maximum variation was aimed in a) the organisation where the participant is working, b) experience in EBP c) the position within the organisation to get a complete view of the context and d) educational level to give a realistic representation of the educational mix in a team in nursing homes.¹⁴

Inclusion for care providers and the managerial staff was possible if there was involvement in the EVIDENCE project and experience with the implementation of EBP, a minimal of three years' experience in nursing home care and a minimal of six months experience within the included organisation to deliver input from working experience and speak fluently Dutch.

Experts were included based on their field of expertise. Through discussion and assessment of preliminary findings, areas of expertise that needed closer investigation were defined and experts selected.

Data analysis

A deductive analysis was used by combining the seven domains of context of the TICD checklist¹⁰ and the i-PARIHS framework⁸ to develop a coding scheme.¹⁵ This approach was chosen to investigate how known factors specifically apply for nursing homes. If relevant text was not fitting within the existing coding scheme, a new code was created and analysed inductively.

Analysis started by re-reading the transcripts to get in touch with the data. Next, all text was coded by developing new codes, within the predetermined categories, to give meaning how factors were experienced by participants and applicable in nursing homes. After coding all meaningful parts of the text, more selective coding was used to reassemble data to create themes and categories and to reflect how interrelation occurred.^{18,19} Analysis was done using MAXQDA 2018 (VERBI, Berlin).²⁰

Three interviews were coded by the supervisor (ML) for investigator-triangulation. Codes and findings were discussed with ML until consensus was reached.

Procedures

Recruitment for the managerial staff and care providers was done by the contact person of the EVIDENCE-project. Potential participants received contact information of the researcher (RM). When showing interest, specific information was provided. Experts were approached by e-mail with specific information and the request to discuss participation by telephone.

The focusgroup took place in one of participating nursing homes and was carried out by RM (note taker) and ML (moderator). Interviews took place in the workplace or another convenient location for the participant and were done by RM. One interview with an expert was done using Skype.

Before every (group)interview demographic data was obtained. Interviews were recorded and audio-files transcribed into text for analysis by RM. Interview guide topics were discussed with ML after every interview, in order to extract relevant information.^{14,18}

Ethical

This study was conducted according to the principles of the declaration of Helsinki (64th version, 28 October 2013) and the Medical Research Involving Human Subjects Act (WMO).²¹ Data was handled in compliance with the Data Protection Act and the European Code of Good Administrative behaviour.²² Before the interviews took place, informed consent was obtained. For the skype-interview, consent was recorded verbally on tape. The ethical advisory comity of the HAN university of applied sciences approved the study. (number; ACPO 75.06/17).

Results

In total 14 participants were interviewed, five in a focusgroup and nine individually. Duration of the focusgroup was 90 minutes. Interviews lasted from 22 up to 59 minutes. Participants were mostly female and between the age of 27 up to 61. Experts on the field of research in elderly care and nursing homes, innovation and implementation in nursing homes and implementation of EBP in hospitals were included. Baseline characteristics are shown in table 2. No participants who agreed to participate withdrew from the study.

Important factors to create an EBP-culture were implementing with a plan, support and facilitation and keeping EBP close to practice. First the factors will be reported then interrelation will be described.

Quotes are shown in table 3 and referred to in the text. Figure 1 provides an overview of the results and interrelation.

Implementing with a plan

Participants expressed the importance of having a course of action. This would provide clarity and would provide direction when start using EBP. Factors such as having a vision on EBP, having an organisation implementation plan and a plan for the team would contribute to the implementation of EBP.

Organisational vision on EBP

The importance of having a vision on EBP was mentioned by many participants. They felt that by formulating and expressing a vision on EBP, the importance of EBP was emphasized which contributed to a sense of urgency. Having a vision would enable managers and policymakers in taking the necessary actions to support the implementation process and make an implementation plan. Also, creating a vision would help to compose a main goal for the entire organisation (Q1).

Organisational implementation plan

Besides being a facilitator of practical matters, such as time and supportive staff, managerial staff was also viewed as the organizer of the implementation process within the whole organisation. Although teams were largely responsible for their own EBP-process, it was expected that the organisation had a plan to introduce EBP and support the implementation process. If support was not experienced by the teams, this would affect motivation and leave teams uncertain on how to proceed next (Q2). Therefore, it was crucial to think ahead about implementation activities, expected difficulties and who would provide what kind of support to the care providers. Examples of support are facilitating a kick-off meeting or enable teams to share experiences and achievements.

Team implementation plan

It was expressed that, although team members had different roles, it was important that everybody had a role in EBP. With different roles, different tasks were associated. Defining these different roles and tasks before starting with implementing EBP, provided transparency of expectations and made the whole team feel responsible for EBP. Every team had a leader who would have more tasks than the other team members and usually had a higher educational level. To motivate colleagues, enthusiasm and knowledge was needed to explain and oversee future steps in the EBP-process. By being part of the team, the leader could positively influence team members on a day to day basis. This created awareness and a more reflective attitude towards provided care within the team. (Q3)

The skill to translate theoretical knowledge into practical actions was mentioned as essential, not only to implement new practices, but for the planning of implementation activities as well. Examples are; leading a meeting, collecting EBP subjects, sharing knowledge and creating awareness of EBP.

Other team members were required to view their practice critically and reflect on provided care, which was important for the formulation of EBP-topics (Q4). They also played a vital role in realizing the aimed changes in care after the evidence was consulted and help evaluate the delivered care.

Providing support and facilitation

Knowledge of EBP

To understand what using EBP means, care providers first needed to have knowledge of what EBP is and the EBP steps. Teams that knew from the start what they could expect, were working towards a goal and had a clear view of their course of action. Facilitating care providers and if necessary other involved staff with knowledge of EBP, was considered as essential in motivating teams to get involved in EBP. Explanation of EBP was seen as especially important if EBP was not a part of the education (Q5).

Examples how to use EBP and how the different EBP-steps take form were perceived by the care providers as supportive for the comprehension of EBP. If information about EBP was not provided, teams felt lost and did not know how to proceed in the EBP-process. This led to a feeling of being insufficiently supported by their organisation and frustration. Therefore, support and guidance were mostly needed in the beginning when choosing a subject, formulating an EBP-question and determining future steps.

EBP-skills

Getting started with EBP was experienced as difficult by care providers and staff, because of the unfamiliarity and lack of EBP-skills. In the EVIDENCE-project a coach would facilitate the person who took the leader role, for this person facilitation was viewed as partially important. Being able to have somebody with EBP-skills to consult with questions and to guide the EBP-process was experienced as very helpful (Q6). By discussing in advance what the support would contain was seen as a way to optimize the effectiveness of support.

(Protected) time

All participants acknowledged the struggle of managing time to do the necessary EBP-activities. Therefore, time was seen as an important factor to implement EBP. Participants thought that a lack of time played a big role in implementing EBP. If time was provided, it was

8

Rosa Mennes

Contributing factors to the implementation of Evidence Based Practice in nursing homes, 29-6-2018

however not always utilised for EBP-activities. Reasons were incidents on the ward or because care providers felt they were not being productive for their clients. The combination of having time and the feeling that this time was well spend for their clients were considered as contributing to using EBP.

Accessibility of evidence

Experts and managers expressed that accessibility of evidence was a problem. To read scientific articles an academic educated professional was needed to translate the research results to practical use in daily care. Experts felt that publishing in native language and presenting results in more attractive ways would enable care providers to directly access evidence. Only one care provider expressed difficulty finding understandable evidence.

Keeping EBP close to practice

For most nursing home-employed participants, EBP was a new concept that was not a part of their education. EBP was viewed as abstract and participants expressed difficulties translating EBP from a theoretical concept to practical actions.

Keeping EBP close to practice by experiencing results, making EBP about the client, choosing recognisable EBP-topics and experiencing professionalisation were considered as contributing to the use of EBP.

Experiencing results and improvement of care

Experiencing results was seen as motivational for the use EBP. Therefore, having an EBP question with a clear defined outcome and considering how results could be measured were crucial (Q7). This could be facilitated by the organisation by making somebody available to guide the process of formulating an EBP question and providing the teams with results as feedback, such as client satisfaction rates or nurse sensitive outcomes. Also, if results were achieved, compliments and positive reinforcement would contribute to a positive attitude towards EBP. Another way of using results as a motivator was by making them visible on the ward to create awareness.

Recognisable EBP-topic with a clear defined outcome

Formulating an EBP-topic was an important step in the EBP process. If the topic was not seen as meaningful by the whole team, it was harder to get everybody on board in using EBP. Also defining what the outcome of the EBP-process would be, was important because this was the goal of the team. Some teams even had to change their subject in a later stage, because the outcome was not defined clearly enough, which lead to discussion within the team (Q8). It was considered helpful to talk about the provided care and reflect on

differences of the way care was provided. Also, examples of how other teams went through this process and methods or standard procedures on how to formulate an EBP-question with a clear outcome were seen as supportive.

Making EBP about the client

It was mentioned several times, that the feeling that time not directly spend on clients, was viewed as non-productive time. What added to the motivation of care providers to use EBP, was the feeling of making a contribution to the quality of care for their clients. If care providers felt they were making a difference in the care for their clients, the motivation and attitude towards EBP would be positive. Care providers expressed that EBP was an innovation that had a direct benefit for their client. (Q9) Giving the client a role in EBP was seen as a way to make EBP a client centred process. Examples are asking clients about options for care-improvement and define desired outcomes with the client.

It was viewed as helpful when the whole team was involved in the process of selecting an EBP-topic. By choosing a subject the team could relate to, the feeling of not being productive was experienced less. This would create a support base that was experienced as beneficial throughout the entire process later on. (Q10)

Experiencing professionalisation

The struggle with time management for EBP was challenge for many. The attitude and the view on EBP had influence on the way this struggle was experienced. If EBP was viewed as a part of the profession and as an opportunity to critically evaluate and improve care for the clients, EBP was often viewed as less a burden in time management.

Some nursing homes teams viewed EBP as an opportunity to provide the best care for their patients and felt empowered to communicate and discuss more with other disciplines, such as physicians or physical therapists. They felt the confidence to stand up for their client, because arguments were taken more seriously when it was based on literature. EBP was even seen as a tool to motivate negative colleagues because it gave them an opportunity to realize change (Q11).

Interrelation

A distinction can be made in the order in which the factors apply and should be addressed. Because a vision is the foundation on which the implementation plan is based, it would therefore be logical to first formulate a vision before developing an implementation plan.

Because all participants expressed the importance of being well supported, creating an implementation plan would be the next step, before starting the use of EBP. During the use

of EBP it is important to keep EBP close to practice to let the care providers experience the benefits of EBP.

Discussion

Important factors that benefit the implementation of EBP in nursing homes are; implementing with a plan, support and facilitation and keeping EBP close to practice. These factors interrelate and could affect successfulness of implementation when not carefully considered. There seems so be an order in which the factors are addressed. The first step would be creating a vision, next an implantation plan in which support and facilitation is considered which enables care providers to start using EBP. This way care providers can experience the benefits of EBP in their daily practice.

In comparison to research on implementing EBP in hospitals, it was noticeable that facilitative factors experienced in hospitals were in compliance with this study. Factors such as using an implementation plan, creating a vision and providing enough facilitation were described by nurses in hospitals as well.²³ Found barriers in hospitals were contradicting evidence and time to read literature were experienced by nurses.²⁴ Although a translational gap of evidence for nursing homes is described by Rahman et al, this was not experienced by care providers included in this study.¹¹ The barrier of contradicting or lacking evidence was not found in this study either. An explanation for the contradiction of these results is that care providers usually did not search for the literature themselves. This was done by a coach, who was facilitated by the EVIDENCE-project, who would later discuss the findings. So, care providers did not express difficulties finding evidence, because they never experienced it as a barrier. If care providers will start searching for evidence they might still encounter this problem. Experts suggested that more evidence should be published in native and understandable language for not-academic educated care providers to improve accessibility and usability of research results.

Research of Backhaus et al shows that baccalaureate-educated nurses have competencies to implement EBP, such as skills to implement and apply evidence, being able to identify and implement new evidence-based practices, transfer knowledge in care teams, translate problems in practice into quality improvement and underlining the importance of EBP.²⁶ These competencies are associated with having the ability to positively influence factors that are related to EBP-implementation. End 2016 only 5% of employed staff in nursing homes were baccalaureate-educated nurses. Nursing home organisation also have difficulties defining the role and the value of baccalaureate-educated nurses. When a clear profile is missing, baccalaureate-educated nurses often perform tasks that can be delegated to other

team members, leaving important competencies for EBP- implementation unused.²⁶ By defining these competencies baccalaureate-educated nurses might be more attracted to work in nursing homes and contribute to the use of EBP.²⁷

This study knows several limitations. The focusgroup consisted of five participants due to last minute cancelation, which could have affected interaction.¹⁴ This was however not experienced during the focusgroup. By using open-ended questions and an experienced moderator, contribution was well balanced and interaction was achieved.

Initially the aim was to conduct a focusgroup with the care providers as well. Because of traveling distance and lack of time, not enough care providers were able to join the focusgroup. The decision to interview the care providers individually might have influenced the generation of ideas and thoughts because interaction of a focusgroup was missing.

To improve the quality of this study, data-triangulation was used in data collection. The use of sources with different views contribute to the credibility of this study.^{14, 28,23} Peer debriefing, investigator triangulation and discussion of findings were incorporated to avoid bias.²⁹ To enhance the confirmability, the research process was regularly discussed with ML, to create a self-critical and reflective attitude throughout the study.¹⁴

Implications for clinical practice

This study describes factors that provides insight in the kind of support and facilitation needed in the context of nursing homes, when implementing EBP. Nursing homes should evaluate if the necessary skills and knowledge are present within the organisation before implementing EBP. Based on this study a manual to provide direction to create and maintain an EBP-culture will be developed, containing practical implementation strategies for care providers, managers, and other staff-members. The effectiveness of implementation strategies should be investigated in the future.

Conclusion

EBP provides opportunities to improve quality of care in nursing homes. Care providers need to experience support, success and improved care in order to stay motivated to keep using EBP. Also, facilitation is needed with the necessary skills and knowledge to use EBP in daily practice. If skills and knowledge are not present, this should be facilitated by the organisation. For example, by utilising the competencies of baccalaureate-educated nurses. EBP can then be seen as a step forward towards professionalisation and better care for elderly.

References

1. IGZ. Verbetering kwaliteit ouderenzorg gaat langzaam. 2014 [Internet]. Available from: https://www.igz.nl/actueel/nieuws/verbetering_kwaliteit_ouderenzorg_gaat_langzaam.aspx
2. Plas M, Engelshoven I Van. Doorbreek de Rituelen Een overzicht van zinloze rituelen in de zorg en een stappenplan om deze te doorbreken.
3. Nerderlans Zorginstituut. Kwaliteitskader Verpleeghuiszorg. 2017.
4. Pmhnp C, Fineout-overholt E, Stillwell SB, Kathleen M. The Seven Steps of Evidence-Based Practice. 2010;110(1):51–3.
5. Bernadette Mazurek Melnyk, RN, PhD, CPNP/NPP, FAAN, FNAP, Ellen Fineout-Overholt, RN, PhD, Nancy Fischbeck Feinstein, RN-C, PhD, Hong Li, RN, PhD, Leigh Small, RN-CS, PhD, PNP, Larry Wilcox, RN, MS, NP-BC, Rachel Kraus, RN, MS P. Nurses' Perceived Knowledge, Beliefs, Skills, and Needs Regarding Evidence-Based Practice: Implications for Accelerating the Paradigm Shift. *Worldviews Evidence-Based Nurs.* 2004;3.
6. Harrington C. Quality of care in nursing home organizations : Establishing a health services research agenda RELATIONSHIP BETWEEN NURSING. *Nurs Outlook.* 2015;(December).
7. Vermeulen H. middelen bij de implementatie van EBP : voorkom de frustratie. 2012;18–20.
8. Harvey G, Kitson A. PARIHS revisited : from heuristic to integrated framework for the successful implementation of knowledge into practice. *Implement Sci* [Internet]. 2016; Available from: <http://dx.doi.org/10.1186/s13012-016-0398-2>
9. Kitson AL, Rycroft-malone J, Harvey G, McCormack B, Seers K, Titchen A. Evaluating the successful implementation of evidence into practice using the PARIHS framework : theoretical and practical challenges. 2008;12:1–12.
10. Flottorp SA, Oxman AD, Krause J, Musila NR, Wensing M, Godycki-cwirko M, et al. A checklist for identifying determinants of practice : A systematic review and synthesis of frameworks and taxonomies of factors that prevent or enable improvements in healthcare professional practice. *Implement Sci.* 2013;
11. Rahman AN, Applebaum RA, Schnelle JF. Translating Research into Practice in

- Nursing Homes: Can We Close the Gap? 2012;52(5):597–606.
12. Grol R, Grimshaw J. Research into practice I From best evidence to best practice : effective implementation of change in patients ' care. 2003;362:1225–31.
 13. Achterberg T Van, Schoonhoven L, Grol R. Nursing Implementation Science : How Evidence-Based Nursing Requires Evidence-Based Implementation. 2008;
 14. Holloway I, Wheeler S. Qualitative research in nursing and health care. third edit. West Sussex: Blackwell Publishing; 2010. 11 p.
 15. Kahlke RM, Hon BA. Generic Qualitative Approaches : Pitfalls and Benefits of Methodological Mixology. 2014;37–52.
 16. Polit DF, Beck CT. Nursing Research, Generating and Assessing Evidence for Nursing Practice. 10th ed. Wolters Kluwer; 2017.
 17. Carter N, Bryant-lukosius D, Dicenso A, Blythe J. The Use of Triangulation in Qualitative Research. Methods & Meanings. 2014;41(5):545–7.
 18. Boeijen H. Analysis in qualitative research. First. Londen: SAGE Publications; 2010. 64 p.
 19. Hsieh H-F, Shannon SE. Three Approaches to Qualitative Content Analysis. 2005;15(9):1277–88.
 20. GmbH VS. MAXQDA version 2018 VERBI Software [Internet]. 2018. Available from: <https://www.maxqda.com/>
 21. World Medical Association (WMA) Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects. Asoc Médica Mund [Internet]. 2013;(June 1964):1–8. Available from: <http://www.wma.net/es/30publications/10policies/b3/>
 22. European Ombudsman. The European Code of Good Administrative Behaviour. 2013;
 23. Ubbink DT, Vermeulen H, Knops a. M, Legemate D a., Oude Rengerink K, Heineman MJ, et al. Implementation of evidence-based practice: outside the box, throughout the hospital. Neth J Med [Internet]. 2011;69(2):87–94. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21411849>
 24. Knops AM, Vermeulen H, Legemate DA, Ubbink DT. Attitudes, awareness, and barriers regarding evidence-based surgery among surgeons and surgical nurses.

- World J Surg. 2009;33(7):1348–55.
25. Kalkhoven F, Aalst M van der. *Zorg Sectorbeschrijving*. Amsterdam; 2015.
 26. Backhaus R, Verbeek H, Rossum E van, Capezuti E, Hamers JPH. Future distinguishing competencies of baccalaureate-educated registered nurses in nursing homes. *Geriatr Nurs (Minneap)*. 2015;36(6):438–444.
 27. Backhaus R, van Rossum E, Verbeek H, Halfens RJG, Tan FES, Capezuti E, et al. Relationship between the presence of baccalaureate-educated RNs and quality of care: a cross-sectional study in Dutch long-term care facilities. *BMC Health Serv Res* [Internet]. 2017;17(1):53. Available from: <http://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-016-1947-8>
 28. Lincoln Y, Guba E. *Naturalistic Inquiry*. Newbury Park: Sage Publications; 1985.
 29. Boeije H. *Analysis in qualitative research*. London: SAGE Publications Ltd; 2014. 223 p.
 30. Patrick A, Laschinger HKS, Laschinger HKS. The effect of structural empowerment and perceived organizational support on middle level nurse managers ' role satisfaction. 2006;(July 2005):13–22.

Table 1. Topiclist

<u>Patient related factors:</u>	<ul style="list-style-type: none"> • Factors which specifically apply for a nursing home population.
<u>Capacity for change in the organisation:</u>	<ul style="list-style-type: none"> • Implementing with a plan of approach (this influences success of implementation⁷) • Learning climate • Organisation culture
<u>Evidence related factors</u>	<ul style="list-style-type: none"> • Availability • Accessibility to evidence • Features of the research (such as quality, complexity and applicability of the evidence)
<u>Resources and incentives</u>	<ul style="list-style-type: none"> • Facilitation of time and resources (such as computers, staff, support) • Incentives (encouragement, rewards)
<u>Professional interaction</u>	<ul style="list-style-type: none"> • Leadership (on individual and organisational level³⁰) • Multidisciplinary collaboration • Team culture towards change • Existing networks in exchanging knowledge
<u>Individual Health professional factors</u>	<ul style="list-style-type: none"> • Skills in EBP • Knowledge of EBP • Motivation to use EBP • Attitude towards EBP • Former experiences with EBP
<u>Social, political and legal factors</u>	<ul style="list-style-type: none"> • Law and legislation • Political developments • Social developments (general views on EBP)

Table 2. demographic data of participants.

	Care providers (individual interviews) N=5	Managerial staff (focusgroup) N=5	Experts (individual interviews) N= 4
Age (median,range)	36, 27-56	53, (38-61)	53, 29-54
Sex	5 females	4 females	4 females
Years of experience within nursing home care (median,range)	4, 1-18	14, 5-34	-
Years of experience within current organisation (median,range)	3, 1-8	8, 1-14	-
Educational level			
-Intermediate vocational education (level 3 IG)	2		
-Intermediate vocational education (level 4)	1	2	
-Baccalaureate education	2	1	
-Academic		2	4
Years of experience within field (median,range)	-	-	15, 6-20

Table 3 Quotes of participants

Quote number	Participant	Quote
Q1	Expert 1	<i>"Having a vision that says; look, working according to EBP principals matters to us as an organisation, so we have it embedded in the organisation in a structural way. Make somebody responsible!"</i>
Q2	Care provider 4	<i>"I think that there was not enough time was taken to explain EBP. There was one meeting and than nothing happened for six months.... If it(EBP) was kept on the agenda frequently, there would have been put more thought into it... more progress would have been made."</i>
Q3	Managerial staff 2	<i>"I think it's very important to have a leader person in the team. Because she is there every day. I am not. I mean, you can organise things in a meeting, but it is more about stuff that goes on in the hall way or during the coffee break that you have to address and discuss. Then you need somebody in the team." Care coordinator staff member</i>
Q4	Expert 2	<i>"recognising variation in care, wondering; are we doing the right thing, asking questions. Those things can be done by everybody. And that's the essence of EBP."</i>
Q5	Expert 3	<i>"I think it is about creating awareness of what EBP really is... we cannot expect a care provider, who was never educated to have certain competencies which were never taught."</i>
Q6	Care provider 3	<i>"What I did find valuable were the conversations with the coach. You can discuss and reflect on the process. This helps you proceed. I don't think you can get that all from book."</i>
Q7	Care provider 3	<i>"Yes, everybody is quite enthusiastic. We made some results, and everybody is excited about that. The more, the better I guess. I did think about that we needed a subject that was close to our practice and that was clear to everyone."</i>
Q8	Care provider 2	<i>"First we did not have a very practical subject but very broad without a very clear and exact outcome, so I wonder if it would</i>

		<i>stick around long enough and if we would keep doing EBP things.”</i>
Q9	Care provider 2	<i>“Make sure that you know what the client’s needs, so that in the end the whole project is about the client and not just oh this is good for the organisation to put on their website. You need to keep the client in mind, that’s important.”</i> <i>“You get something out of it, there was clearly a difference. So I think that that is important. A combination of client centred care and results.”</i>
Q10	Care provider 3	<i>“We do things together...We got together with the whole team, everybody had their input in what they experienced. We made a list of how everybody would handle the situation and used that to make a plan that everybody had to stick to”</i>
Q11	Care provider 5	<i>“We often have to stand up against doctors of specialised nurses about how we are going to care for our clients. We know our clients and their background. Now we feel more empowered to tell a doctor about the things that we think are best for our clients. We felt that we were not always taken seriously. But now they accept it! We did not expect that at all.”</i>

Figure 1. Overview of interrelating factors



