# Why do some implementations of new evidence- based knowledge succeed while others are quickly forgotten?

## A qualitative study of implementation processes in an ICU.


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# MASTEROPPGAVE

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Regards,
Lena & Pia

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Pia- The master thesis chapter is done and it is time to pop the champagne, but I have no doubt that this is just the beginning for the “dreamteam”. Thank you for sorting me out and keeping me in line. And most of all a massive thank you for being my partner in crime!

Lena

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## PART 1- MASTER THESIS

Part one of the following paper presents the Master Thesis. The main focus of this part will be the design of the study and the methodological approach. Background, theoretical framework, methodology, analysis and steps of research will be described. Results will be briefly presented and not elaborated further. Finally, we wish to discuss the scope and function of the Critical Care Nurse and how their qualifications may benefit in the implementation process of Evidence Based Knowledge.

Part two of the paper will consist of a research article aimed for publication. The main focus here will be results of the study, as well as discussion of results.

## ABSTRACT

**Background**: New evidence- based practices (EBP) are continuously introduced in the dynamic, fast changing and highly specialized environment of an Intensive Care Unit. There are a number of theories that predict the possible success of a new implementation of EBP and there exist numerous well-documented factors that need to be in place in order for a sustainable change to occur. For a successful implementation of EBP to take place, there must exist sufficient evidence supporting the usefulness of the EBP to be implemented. Other factors that play a role are the clinicians who will need to learn and adapt the new EBP into their daily work lives, as well as the organization where the implementation takes place, the culture of the workplace and the manner in which the evidence of the EBP is communicated and presented.

In the planning of this study, the ICU was in the beginning phases of implementing a new, evidence-based tool for clinical debriefing. The TALK Clinical Debriefing tool, is part of a larger, EU funded project, based on the World Health Organization's recommendation that clinical staff use debriefing as a tool to improve patient safety and staff well-being The implementation of this tool is therefore used as an example of an implementation process in this study. Evidence shows that debriefing before and after critical events, as well as after events with a positive outcome, increases individual and team performances as well as increases the value of participants´ self-assessment.

**Aim**: The aim of the study was to deepen the understanding of the implementation processes and to explore why some EBPs are more easily implemented than others, identifying enablers and barriers to sustainable implementations, using the implementation of TALK clinical debrief in the ICU of a Norwegian University Hospital as an example of an implementation of EBP.

**Design**: Qualitative, inductive- exploratory research methods were applied. The author's performed two separate focus-group-interviews in the ICU, as well as four individual interviews, in order to gain knowledge and understanding of the unit’s views and thoughts about implementing new evidence, and to reveal enablers and barriers to the implementation of TALK clinical debrief. Interviews were analyzed using Graneheim and Lundmanns process of Qualitative Content Analysis.

## 1.0 INTRODUCTION

The Norwegian Association of Critical Care Nurses “Role and scope of Practice of the Critical Care Nurse” states that it is the Critical Care Nurse (CCN)´s responsibility to ensure quality improvement and to enhance skill competency by using systematic processes and an updated knowledge-based approach, with critical reflection of the complex context and practice the ICU constitutes. It also describes the CCN´s role to initiate, cooperate and take responsibility for patient safety through multidisciplinary collaboration(Lykke, Paula M. E., 2020). All healthcare staff have legal obligations to cooperate and coordinate the care provided with other qualified staff to ensure that the patient care meets both medical and professional norms and standards (Helsepersonelloven.hpl, 2001), (Spesialisthelsetjenesteloven – sphl, 2001). The attention on patient safety has increased in the last decade and according to the “National action plan for patient safety and quality improvement”, produced by the Norwegian Directorate of Health to create a targeted and coordinated effort to improve patient safety, it is essential to work systematically and coordinated across professions to prevent and reduce patient injuries. They also state that it is an important leadership task to enable learning in order to improve quality of care resulting in the reduction of unintended negative incidents for patients.
(*I Trygge Hender 24/7*, jan, 2020).

The Sigma Theta Tau International defines evidence-based nursing as “an integration of the best evidence available, nursing expertise, and the values and preferences of the individuals, families and communities who are served”. The goal of using Evidence-based practises (EBP) is to bridge the gap between knowledge and practice, this providing safe, effective and quality care to the patients under our care (Profetto-Mcgrath 2005).

In order for CCNs to effectively develop and apply EBP into action it is important that there is an understanding of the enablers and barriers to change the way we work and care for patients.

### 1.1 BACKGROUND FOR CHOICE OF TOPIC

The topic of implementation of new knowledge was chosen by the authors after several years of working in the medical field as nurses, and, currently, as students of critical care nursing. It is noted by the authors that the treatment and care in the ICU is in

constant change. New procedures and routines are often introduced- some quickly adapted by all staff, and others just as quickly forgotten (Rangachari et al., 2013). We wished to deepen the understanding of why this is the case, through conducting interviews with CCN´s and other members of the ICU team. Through our study, we hope to shed light on this phenomenon, through CCN´s as well as ICU teams´ ways of thinking with regard to implementation of EBP in their ward.

Personal experiences with debriefing as a positive path to learning, as well as the intended concurrent implementation of TALK clinical debrief in the ICU, led to interest in the TALK clinical debrief tool, and the use of the implementation of TALK clinical debrief as an example of implementation processes in the ICU. As critical care nursing students, we experienced that simulation is an often-used method for learning. Following these simulations, debriefing is routinely used as a method for analyzing, discussing and learning from what was done (Reierson et al., 2017). Studies show that adapting this type of debrief into a real clinical setting will empower and strengthen clinical staff in their daily work lives (*Talkdebrief.Org*, October, 2019.).

### 1.2 Previous research on the area

Several literature searches have been performed using CINAHL and Medline databases. Searches focused on implementation processes/success in the hospital environment, learning through successes and mistakes, CCNs role in implementation of EBP and adherence to EBP.

#### 1.2.1 The challenges and possibilities that come with change

Intensive Care or Critical Care Units (ICUs) are highly specialized hospital wards caring for the critically ill or injured patients. It is a work environment where there is constant development with new EBPs adopted frequently in order to provide the best and safest patient care, staff wellbeing and effectiveness. Therefor the ICU staff are no strangers to new procedures and guidelines being introduced into their work environment.

There has been an increasing focus on implementation processes over the last couple of decades and there are numerous well documented factors that need to be in place in order for something new to be useful, serve its intended purpose and become a

sustainable change (Allen et al., 2020; Bjurling-Sjöberg et al., 2015; Carlfjord et al., 2010; Gilhooly et al., 2019a; Kirk et al., 2016a; Weinert & Mann, 2008)

In order to achieve change it is crucial that the involved staff understand the benefits and the aims of the intervention (Miller et al., 2012). Bottom line is that the format is crucial for the acceptance and the usefulness of the intervention; if it is not a user-friendly intervention, it creates resistance and a barrier for the implementation process, while a comprehensive and familiar format facilitates use and acceptance (Bjurling-Sjöberg et al., 2015). In the study performed by Hallam et al., (2018) , with the aim to understand how ICU providers perceive rounding checklists and develop a framework for more effective rounding checklist implementation, the characteristics of the checklists themselves played an important role in determining the success of the implementation. The checklists needed to be short, relevant and adaptable documents, with the purpose of increasing the efficiency on rounds, to create a shared understanding about the patients' medical problems and a tool for the team to set goals for the day by reminding the care team to discuss important topics in a structured and professional manner that otherwise could be left out from the discussion. Overlong checklists that included irrelevant items were seen as a key barrier, as well as the consistency of use of the checklist. The study emphasizes the importance of creating shared normative expectations among the care team. When the checklists started to occasionally not be used by team members it could lead to team members starting to question the value of the checklist, which in turn created a momentum towards non-use. Gilhooley et al. (2018) describe similar findings in their study, showing that care bundles with a few simple elements are likely to generate better compliance in the general acute care setting.

Key factors to enable change is the necessity of enthusiasm, support and time (Dryden-Palmer et al., 2020; Sharma et al., 2018; Weiner, 2009a). There are multiple factors that contribute to creating a culture of willingness and understanding for the need for change and furtherance of the goal to create new habits. The readiness for change must exist at the level of the individual, team and organization. Both the will and the power to change depend on showing that it is needed, important, beneficial, and worthwhile. A commitment to change, i.e. "Change commitment", is a shared belief in the collective capability to implement a change. What will it take to implement the change effectively? Do we have the needed resources to do so? Is the organization

ready for the change? When the organizational readiness for change is high, the staff is more likely to take initiative with a greater effort, commitment and persistence to effective implementation of change, i.e. “Change efficacy” (Rafferty et al., 2013; Sharma et al., 2018; Weiner, 2009b).

The importance of creating an organizational commitment, assembling a multiprofessional team, engaging a range of stakeholders, including “champions”, is recognized as an important factor when it comes to the implementation process, not only for the initial success of the implementation, but also for its long-term sustainability (Green et al., 2017a). A leadership that communicates both existing and upcoming strategies and explains expectations and defines areas of improvement is essential to convince the healthcare professionals of the need for change and foster positive attitudes towards change (Kash et al., 2014; Sharma et al., 2018). According to Bjurling-Sjöberg et al. (2015), a bottom-up initiative where enthusiastic staff takes initiative to improve and assure quality of care, interprofessional project groups of supportive individuals with an early involvement by staff beyond the project group, and small ICUs, enhance a successful implementation and strengthened sustainability. Insufficient support and lack of time can be barriers to implementation. The importance of care quality and client satisfaction is also recognized as a motivator for change initiatives by Kash, Spaulding, Johnson and Gamm (2014).

There exist a range of different strategies, such as education, workshops, reminders, audit and feedback, champions, multi-disciplinary project groups, to implement new interventions. But most projects use multi-level approaches to engage the ward staff. These have been shown to be more effective than single strategies (Aitken et al., 2011; Bjurling-Sjöberg et al., 2015; Borgert et al., 2015; Green et al., 2017b; Jordan et al., 2017),. The systematic review performed by Gilhooly et al. (2019) shows that there is a higher compliance associated with more frequent use of multidisciplinary teams, champions and formative evaluations than with clinical reminders such as posters, printed algorithms and screen savers serving as reminders.

Previous research shows that, despite broad availability of evidence of common barriers and enablers for the implementation process, there is still gap a between “knowing” and “doing”, resulting in not succeeding with the implementation of new knowledge and therefore not achieving a sustainable change.

### 1.2.2 The introduction and implementation of a clinical debriefing tool

As an example of an implementation process, we used the implementation of the TALK clinical debriefing tool in the Norwegian ICU. This university hospital implemented the TALK clinical debriefing tool as part of a larger, EU funded project, based on the World Health Organization's recommendation that clinical staff who work in teams participate in discussions or debriefings during and after the end of shift, after both difficult as well as successful events relating to patient treatment. TALK clinical debrief is designed to promote both patient and staff safety, as well as to encourage a culture of support and learning in the hospital environment and is intended to be a positive method for self- and team improvement with regard to patient safety; this is rooted in its core values: Positivity, solution finding and not finger pointing, communication and the idea that small changes can lead to great improvement (*Talkdebrief.Org*, October 2019.).

**T** **Step 1: Target**

What shall we discuss to improve patient care?

Share your perspective.

**A** **Step 2: Analysis**

Explore your agreed target. If appropriate, consider:

1. What helped or hindered...

communication /decision making / situational awareness?

2. How can we repeat successful performances or improve?

**L** **Step 3: Learning Points**

What can the team learn from the experience?

**K** **Step 4: Key Actions**

What can we do to improve and maintain patient safety?

Who will take responsibility for those actions? Who will follow them up?

Debriefs are a powerful and simple tool to improve the effectiveness of teams and individuals. The meta-analysis performed by Tannenbaum and Cerasoli (2013) indicates that, on average, performance improves by approximately 25% when using debriefs. The improved effectiveness by debriefs are shown both on an individual performance level as well as on a team effectiveness level, across simulated and real settings.

Debriefs are increasingly used in the medical field to improve performance after an event, both in training settings and work environments, with the aim for the team to learn from a shared experience through group reflection, discussion, and goal setting (Couper et al., 2013). Through a multidisciplinary dialog, strengths and weaknesses are identified. By asking “What happened?”, “Why it happened?” and “How it happened?” improves future outcomes. The key to a successful debriefing is to focus, not on individual performance, but on all the available facts, with different team perspectives from all who actively participated in the clinical event, to find areas, that if modified and would be beneficial for the next patient. Recognition and understanding of a clinical event, both barriers and facilitators, is a vital step toward a better patient outcome and staff well-being (Kaur et al., 2019; Kessler et al., 2015; Thompson et al., 2018).

These sessions are typically implemented after a critical incident. In an intensive care unit, the team faces perhaps not daily critical dramatic incidents but morally draining events, or dysfunctional interpersonal interactions, or even common problems in noncritical patients that also can trigger relevant opportunities to debrief. Debriefing should not only be limited to events that have poor outcomes for the patients or are emotionally disturbing for the team. It is equally as important to debrief clinical events with good outcomes, in order to reinforce the behaviors that contributed to a successful outcome and thus, strengthen the team. Bedside nurses often find themselves in a continuous state of learning, experimenting and adapting, as part of their daily nursing role. Debriefs can therefore also be more informal and provide an invaluable learning environment for the critical care nurse working bedside who has to be able to anticipate possible developments or complications (Jarden et al., 2019; Werry, 2016).

Health care providers recognize the importance of debriefing. However, barriers exist, such as finding the time to debrief immediately after the event, minutes to hours after the event or days to weeks after the event (Clark & McLean, 2018). According to Mullan, Kessler and Cheng (2014), taking the time to debrief is of great importance for continued professional development. Debriefings do not need to be long. Werry (2016) states that focused and sufficient debriefings are likely to increase acceptability and feasibility among clinicians, especially early in the implementation process. In a study about daily, operational debriefings, by Sandhu, Colon, Barlow and Ferris (2016), the majority felt that these types of debriefings nurtured the team spirit and professional relationship, not only nurse to nurse but also physician to nurse. These debriefings were a part of the daily ICU routine as a casual support mechanism to improve teamwork and work environment, rather than solely following major incidents.

Previous research show that there, despite broad availability of evidence of common barriers and enablers for the implementation process, there is still gap a between "knowing" and "doing", resulting in not succeeding with the implementation of new knowledge and therefore not achieving a sustainable change.

## 2.0 Aim

The aim of the study is to deepen the understanding of the implementation processes and to explore why some EBPs are more easily implemented than others, identifying enablers and barriers to sustainable implementations, using the implementation of TALK clinical debrief in the ICU of a Norwegian University Hospital as an example of an implementation.

In order to gain insight into the aim of the thesis, two research questions were developed:

1- What are enablers and barriers in implementing new EBPs in the ICU?

2- How can the implementation of new EBPs be sustained over time?

## 3.0 RELEVANCE

This study is relevant for the implementation not only of TALK clinical debrief, but to anyone who seeks to implement new, evidence-based practices in a clinical setting. Due to the fast changing and constant development of new knowledge the staff in the ICU are not unaccustomed to new procedures, protocols and equipment being introduced in their workplace. New EBPs are implemented on a regular basis. However, though many are used and become second nature to the staff working in the ICU, some are put away, and never become the new "norm", or standard to which work is completed. As CCNs, it falls within our responsibilities to optimize safe and dignified care to our patients (Lykke, Paula M. E., 2020). The adoption and implementation of evidence- based practice falls within the scope of our responsibilities and duties. This study will contribute knowledge about why this happens: What makes some new implementations stick, while others are quickly forgotten?

## 4.0 THEORETICAL BACKGROUND

### 4.1 PARIHS

Within implementation science, there are many methods, theories and frameworks among which to choose. As a theoretical framework in order to determine implementation readiness, as well as barriers and enablers to the implementation process, and to identify key factors that contribute to the success or failure of implementation of new evidence- based procedures or protocols in the ICU, we used the model initially developed by Kitson, Harvey and McCormack in 1998; *Promoting Action on Research Implementation in Health Services (PARIHS).*

The model that is frequently referred to, is based on three elements: *evidence, context and facilitation (Rycroft-Malone & Bucknall, 2013)*, each with their own sub-categories and based on the claim that successful implementation can happen when the three base elements are in place;

1. What seeks to be implemented must be based on evidence, i.e. it must be grounded in scientific findings.
2. The context, or place/setting of implementations must be one where there is an openness to change. Leadership must be strong, and there must exist effective monitoring and feedback systems.

3. There must be one or more facilitators in place to ease the process of implementation. These facilitators have an in-depth knowledge of what is being implemented and serve in key roles in the implementation process.

These basic elements are evaluated on a scale (the PARIHS assessment), ranging from low to high, and the ratings indicate implementation readiness for a given procedure or change.

FIGURE 1 outlines the PARIHS framework and its implications for implementation:

| **PARIHS ASSESSMENT** | **LOW** | **MEDIUM** | **HIGH** |
|---|---|---|---|
| ***Evidence*** | | | |
| Research: Results from published studies | weak, not relevant | mixed, slightly relevant | Strong, RCT???´s, relevant |
| Previous experience | Not in favour | mixed reviews | in favour |
| Patient/staff preference | Not clear on value/purpose of intervention | Somewhat clear on value and purpose | Clear understanding of the value and purpose of the implementation |
| ***Context*** | | | |
| Leadership: Leaders/management with influence on implementation | Undefined roles/ weak leadership | Mixed | Strong leadership, defined roles. |
| Culture | Poor morale, not open to change or innovation | Mixed morale. Some open others not | Strong morale and readiness to change. |
| Measurement | No evaluation, processes or feedback. Poor teamwork | Some evaluation and feedback. Some degree of teamwork | Constant evaluation and feedback to groups and individuals. Good teamwork |
| **Facilitation** | | | |
| Facilitators are “experts” and are sought out for their expertise. Earned respect from colleagues. | No respect or credibility from other staff | Some respect and credibility | Seen as a resource in the field and held in a high degree of respect and credibility |
| Facilitators role: Supportive of implementation, behaviours and actions reflect this | Role undefined and is not supportive of implementation | Slightly supportive of implementation | Clearly supportive of implementation |

| | | | |
|---|---|---|---|
| Style of facilitator | Rigid, not flexible and unable to adapt | Somewhat flexible | Very flexible and supportive. |

**Figure 1.** Adapted from (Hill et al., 2017; Rycroft-Malone & Bucknall, 2013)

### 4.2 Responsibilities of Critical Care Nurses in the implementation and adherence to Evidence-Based Practice.

The "role and scope of Critical Care nurses", outlined by the Norwegian association of Critical Care Nurses (Lykke, Paula M. E., 2020) describes Critical care nursing as a *specialty within the nursing field, based on advanced knowledge and competency within areas of patient treatment, education, professional development, interdisciplinary collaboration and organization. To build competency, improve quality and develop new evidence are systematic and well-established processes in professional nursing practice.* Within this scope, emphasis is placed on the CCNs ability to apply evidence- based knowledge in quality improvement, as well as contribute to professional development and collaboration in multidisciplinary teams focused around patient care.

## 5.0 Method

This chapter will present how the study was performed, including reasons for the choice of methodology. Possible limitations of the study will be presented and discussed as a separate chapter.

In planning the research process, considerations were made with regard to choice of research method, sampling, interviewing and analyzing data. A project plan, outlining the intended project, was written and evaluated by an accomplished professor who is an experienced qualitative researcher of nursing research at the University of Stavanger. The interview guide was also reviewed and approved by the same professor. Continuous reflection of quality of research, ethical standards and reflection on challenges of collection of reliable and trustworthy qualitative data were essential to the process. (Malterud, 2012a).

## 5.1 DESIGN

A qualitative research design has the aim to capture the whole and discover meaning (Munhall, 2012). In order to gain a deeper insight of how new EBDs are implemented in the ICU, we wished to deepen the understanding of the common experiences and attitudes of the ICU team related to the topic of implementation of EBPs. In order to accomplish this, we chose to perform focus group interviews as our main method for data collection, adding individual interviews as a method for gaining more knowledge about the topic.

Focus groups invite the participants to share their experiences and opinions in a casual manner. Group interactions are both the strength and the potential limitation of using the focus group interview technique. The advantage of using focus group interviews as method for data collection, is that the researchers are able to obtain the viewpoint of many informants in a short period of time and, potentially, create a stimulating discussion, leading to a broader expression of opinions as the group engages. The reasoning behind using focus group interviews for this study was just that, i.e. the authors wished to collect large amounts of data over little time, as well as to capture a broad spectrum of opinions.

An inductive approach to the research was used, meaning that through the process the authors seeked similarities and differences within the collected data obtained from the participants in order to present findings separated into categories and themes based on both manifest and latent content (Ulla H. Graneheim et al., 2017a)

The aim of our study is to identify enablers and barriers to implementation of EBPs through describing the ICU staffs' thoughts and attitudes towards the research question; however, this also involves a certain degree of interpretation from the researchers.

Qualitative research aims to describe the manifest content, that which is close to the text, of a phenomenon, as well as to interpret the latent content of the same phenomenon, i.e. that which is the underlying meaning of the given text. Qualitative Content Analysis is an approach to analyzing qualitative data that entails moving between the manifest and the latent content of the data. This approach aims to not only present the subjective experience, but to further understand the phenomenon of

a study by interpreting the underlying meanings of what the participants are saying (Ulla H. Graneheim et al., 2017b)

The purpose of research is to solve a problem. In order to achieve this, quantitative methods have traditionally been used in order to solve the problems at hand. Qualitative research serves the same purpose but focuses on the many dimensions of said problem, i.e. that a problem cannot be solved if there does not exist an understanding of the different reasonings for the problem (Munhall, 2012).

Keeping the stated research questions in mind, using an inductive-explorative approach in gaining an understanding of what is being studied, strengthens the findings due to the method´s ability to capture a wide range of perspectives, capturing both frequent and infrequent lived experiences and views (Houser, 2018).

### 5.2 The Authors Pre-Understanding

Both researchers have several years' experience working as nurses in different wards of the University hospitals. They have also completed clinical rotations in the ICU, as students of critical care nursing. As both experienced nurses, as well as students, the authors are aware of constantly changing working environments, due to new protocols being implemented. It is the experience of the authors that while some new evidence-based procedures are easily adapted, others take longer to become the new norm, while some are never adapted. Further, it is the authors experience, that use of debriefing is scarce, and withheld only for critical events.

Due to TALK clinical debriefing being implemented into the ICU, and the researcher's involvement in researching barriers and enablers for the implementation, both researchers had attended TALK clinical debrief workshops prior to the interviews. Though the researchers were not contracted by the TALK clinical debrief project, an agreement was made to gather data to facilitate implementation, as well as to share findings of the study with the rest of the TALK clinical debrief team.

Reflexibility refers to the researcher's constant self- evaluation of own thoughts and ideas, focusing on separating one's own understanding from that of the participants. the difficulty in this lies in the initial interest in the subject studied. It is the researchers own experiences that have led to the interest in the topic, thus creating difficulty in separating one's own experiences from that of the participants. Through continuous

dialogue and discussion between the researchers throughout every step of the research process, subjectivity from the point of view of the researchers aims to be limited. In analyzing the data collected, though comprised of mostly manifest content with little need for interpretation, some degree of interpretation is indeed inevitable. Including a detailed and rich description of the researchers pre- understanding of the topic at hand serves to illustrate the researchers reflexibility and potential bias in the results presented, thus providing a transparent presentation in order for the reader to follow the process of thought throughout (Malterud, 2012b).

### 5.3 CONTEXT

The qualitative study was performed in an Intensive Care Unit of a university hospital in Norway, comprised of three separate wards, including the general ICU, post-operative ward, and the otolaryngology surgical ward. The nurse staff includes,130 Critical Care nurses and regular nurses' positions, where the CCN´s (nurses with a master's degree in critical care or formal ICU education) work in rotation, staffing all three wards. Approximately 30% of CCNs in the ward hold a Masters degree in Critical Care Nursing. The physician staff is made up of both ICU doctors, Anesthesiologist, and physicians pursuing a degree within anesthesiology. While some are employed only in the ICU, others rotate within the units as well as in the operating theatres. While covering shifts in the ICU they are also responsible for responding to trauma alarms, assist in cardiac arrest situations anywhere in the hospital, and are part of a mobile intensive care team which responds to serious situations in any given ward in the hospital.

While planning the study, the researchers aimed to interview ICU staff prior to TALK clinical debrief implementation in order to collect baseline data related to the research questions. However, due to delays in the approval of the project interviews in fact took place 6 weeks after the staff had been introduced to the TALK framework, and the intended usage of it had been (theoretically) implemented. All management and 90% of the nursing staff had reportedly received an introduction to the framework, attended a TALK clinical debrief class including simulation of how to use TALK clinical debrief in their day to day work, as well as been told that it was a tool intended to be used in the ICU. The doctor staff had attended a separate introduction class, through unfortunately not all staff doctors were able to, or invited to attend.

It is also of importance to mention that two weeks after the implementation of TALK clinical debrief, the general ICU implemented an electronic medical chart into their daily work. This electronic charting system replaced the previous handwritten charting that had been in place for several years. It was a large project, entailing many hours of training for each of the employees in order to make the transition. The planning and organization of the implementation of the electronic charts was one that had taken several years to prepare for, also including a failed attempt at implementation 2,5 years prior.

### 5.4 SAMPLE

In an ICU, all professionals work closely in teams in order to best meet the needs of care and treatment for their patients. Intensive Care Medicine is a field in constant change due to new and improved evidence-based treatment, resulting in a dynamic and ever-changing work environment. New procedures and protocols affect the way the team works as a whole, and in order to explore why some EBPs are more easily implemented than others, we found it important to invite physicians, CCN´s, as well as nurse management to participate in the focus group interviews. Also, as the TALK debriefing tool is intended to improve teamwork and patient safety, we found it equally important to explore the thoughts and opinions of the entire team in relation to identifying enablers and barriers for implementing TALK clinical debriefing specifically, thus providing a specific example of implementing an intervention in the ICU.

We conducted two focus group interviews with a total of ten CCN´s. We did not succeed in gathering mixed professions for these interviews. Therefore, to capture the experience of the ICU physicians and nurse managers, who are crucial in the day to day flow of the ICU, we performed individual interviews with the physicians and representatives of the ICU nursing management team.

According to Malterud et. al. (2016), the continuous re-evaluation of sample size in qualitative research is essential, continuously reflecting on the density of data collected. In the case of this study, more interviews were added due to the realization that in order to appropriately answer the research question, and adequately capture the feelings of the ICU team, more data collected from the doctors involved in said teams was needed. Including doctors and management added to the “information power” of the study and provided us with a purposeful sample based on the common

experience of working in the ICU. During the research process the adequacy of the sample size was continuously evaluated.

The term “information power” in qualitative research refers to the depth and scope of data which a sample holds. Sufficient information power lies in three factors: The aim of the study, the specificity of the sample, and the process of analysis (Malterud et al., 2016). Due to the narrow and specific research questions at hand, the original plan to conduct two focus group interviews comprised of doctors, ICU nurses and managers of the ward was deemed sufficient in order to capture the essence of the phenomenon studied. Due to difficulties gathering all three professions for the focus group interviews, individual interviews were added in order to obtain a dataset representative of the teams working in the ICU at any given time.

Due to the researcher’s former connection to the ward in a student capacity, and in order for the interviewees to participate willingly, and without bias, participants were recruited by the nurse manager in the ward. This manner of recruitment facilitated maintaining ethical standards of participation by being on a volunteer basis (Thagaard, 2018). However, due to the researchers not taking part in the recruitment process, there is no information about how many, if any, declined participation, or for what reason they may have done so.

In total, 10 CCN´s, 2 physicians and 2 members of the nursing management team participated in the interviews, all female, with clinical experience ranging from 5 to more than 20 years.

### 5.5 Data Collection

Two focus group interviews took place in an unoccupied ICU patient room, during the participants working hours, at the end of December 2019. The third focus-group interview was performed February 2020. Individual interviews took place in the ICU conference room, January 2020. Due to a dynamic ICU environment, planning ahead is often a challenge. Patients safety is the number one priority at all times, and we were prepared to change the dates of interviews on short notice to accommodate the ICU staff. No rescheduling was needed, and interviews went on as planned.

In all interviews, there was an atmosphere of open discussion, and the participants seemed engaged and interested in the topic of conversation. All involved openly shared their perspectives regarding the topic of the interview.

At the start of each interview the participants were addressed by the authors and informed about the nature of the project. They also received information about how to withdraw their consent should they choose to do so (attachment 1). During the focus group interviews, one researcher acted as a moderator, while the other researcher served as note taker/secretary. The focus of the interviews was how new evidence-based procedures are implemented in their ward, what enables or hinders implementation of new knowledge, as well as TALK clinical debrief, its implementation barriers and enablers, uncovering whether or not the department sees a need for such a tool in their ward. A qualitative interview guide developed by the TALK project was used for TALK related questions and questions relating to general implementation were added by the authors and approved by the University Hospital (attachment 2). At the end of each interview, the researcher in the secretary position addressed the participants, summarizing the general topics discussed, and asking for any clarification that might be needed, and attaining approval of the interpretation. This summarization was approved by all participants and leads to further strengthening the findings provided (Malterud, 2012a).

Being able to gather data during working hours simplified the sampling process, making recruitment of participants easier, as they did not need to use time off in order to participate.

During one focus group interview, the session was interrupted briefly by a data technician, however the interruption was minimal, and participants were able to immediately jump back into the discussion. Conducting interviews away from the ward may have provided an environment free of interruption, though the one incidence was of no consequence and participants seemed unaffected by it.

### 5.6 Data Analysis

All interviews were audiotaped and immediately following, transcribed. Participants were unidentified in the transcriptions. Data was analyzed by means of quantitative content analysis (U.H Graneheim & Lundman, 2004a). This method of analysis was used due to the transparent method of analyzing data, promoting openness in the

process. Qualitative Content analysis deals with complexity of data collected in methodological and step-by-step manner, gradually reducing the content into clear main findings (Kohlbacher, 2006). In preparation for the interview, both researchers attended a lecture with Ulla Graneheim, regarding the use of qualitative content analysis in nursing research.

Qualitative content analysis often used in qualitative nursing research assumes that "reality can be interpreted in various ways and the understanding is dependent on subjective interpretation" (U.H Graneheim & Lundman, 2004a). Meaning, that trustworthiness in qualitative research can indeed be achieved with the understanding that such research, based on narratives and interviews are subjective and context based, and that one cannot ignore the fact that some degree of interpretation is inevitable. However, in analyzing data, staying close to the original text and understanding the context in which the data is collected while offering transparency into the research process, reliable, trustworthy data may be presented.

The authors first read the transcribed interviews independently, and individually broke the text into meaning units. This was done in the original language. Later the meaning units were discussed and agreed upon. Both researchers had completed this task quite similarly. Further, the following steps, described by Graneheim and Lundman (2004) were followed:

1. Condensation of the text; Shortening the meaning units, without changing the meaning itself. Condensation serves to make the text easier to read and understand, shortening text into more understandable statements. Condensation was done in the original language, then translated into English for further analysis.

2. Abstraction(coding); Grouping together condensations of the text that apply to or refer to similar things. Due to the manifest content of the data collected, need for interpretation was limited. The researches first completed this task individually, then discussed their individual findings. Also, this task was completed quite similarly due to the collected data's manifest content. Wording of the codes was discussed and agreed upon.

3. Separating codes into content areas/categories; Limiting interpretation, different codes are categorized into separate topics. The categories aim to answer the *what* of the research question. This task was completed as a team, the researchers discussed the meaning of the codes, categorizing them thereafter.

4. Creating themes; Underlying meaning of the content separated and labelled into themes. Finally, categories were separated into themes by both researchers discussing the latent meaning of the categories and grouping them together into two themes that answer the *why* of the research question.

The analysis process was a dynamic one, where the researchers found the need to go back and forth in the process to reevaluate and secure that the categories agreed upon did indeed answer the research questions. The main difficulty was faced in the creation of codes, due to initial coding being too broad, thus in reality representing a category. Recoding was therefore needed in order to more concisely specify the codes used to create categories.

The analysis process was also presented in a “masters seminar” attended by other master students and their mentors. This assisted the authors in providing a clear and transparent presentation of the process, through input from the audience.

During this presentation of the analysis process, authors were made aware of potential limitations to the study due to the lack of transparency in the translating of the original texts. Though both authors are fluent in both the original language as well as English, steps were taken to assure the quality of the translations, by going back to the original text, translating each meaning unit to English. An independent party (also fluent in both languages) was then asked to translate the text back into the original language- thus controlling for potential limitations to the translation. Translating text in the early stages of analysis, according to (Santos et al., 2015) assures quality due to leading to an “interactive process of data analysis among researchers and translators and minimizes the limitations associated with a lack of access to the entire dataset for those researchers who do not speak the language used in the data collection”.

Examples of analysis data can be seen in figures 4, 5 & 6.

| | |
|---|---|
| Group interview Nurses | |
| Meaning unit | "...jeg må oppleve litt verdi av det også tror jeg… at det er mening i det…" |
| Translation | "..I need to see some value to it as well I think...that it has meaning…" |
| Condensation | Feeling of meaning and value of what is being implemented plays a role in whether or not it is used |
| Code/abstraction | Perceived need for personal and team improvement |
| Content area/category | Personal experiences are determining factors |
| Theme | Willingness to change is dependent upon possible gains for clinical and personal improvement |

FIGURE 4

| | |
|---|---|
| Individual interview management | |
| Meaning Unit | "... Nei, jeg tror det handler om systemene det er satt i gang i og at ting blir etterspurt… det er viktig at det holdes varmt ikke sant?...det tror jeg kanskje det viktigste…" |
| Translation | "...No, I think it is about the system it is started in and that things are asked for...it is important that it is kept hot, ringt?...I think that might be the most important thing…" |
| Condensation | Management must have system in place when they introduce new thing… and it needs to be kept alive somehow. |
| Code/abstraction | Focus over time |
| Content area/category | Leadership must be clear and motivating |
| Theme | Follow up and follow through. A system of implementation |

FIGURE 5

| | |
|---|---|
| Individual interview doctor | |
| Meaning Unit | "...Hele teamet må bli kjent med prinsippene og særlig de som blir stående som teamleder...føler jeg har en nøkkelrolle i akkurat det…" |
| Translation | "...The entire team needs to know the principles and especially those who act as team leaders...I feel have a key role i that…" |
| Condensation | Importance of including entire team in the implementation process so that everyone knows what it entails. Especially the doctors who often serve as team leaders. |
| Code/abstraction | Making intervention relevant for the entire team |
| Content area/ category | Clear goals for intervention |
| Theme | Follow up and follow through. A system of implementation |

FIGURE 6

An inductive approach was applied to the analysis of the data collected. This refers to the system of epistemology used in gaining knowledge about the stated topic (Munhall, 2012). The nature of the research question in this study does not seek to prove or disprove a hypothesis, but to uncover new aspects of a phenomenon through discussion and interactions in an interview setting.

In providing a detailed step- by- step description of the analysis processes the researchers provide a transparent visualization of the research from start to end. As novice researchers, the authors experienced some difficulties in the process of analysis, as previously described. Initially not translating the interviews immediately, before beginning the analysis process may serve as a limitation to the study, due to some meanings perhaps getting lost in the translation. However, backtracking and translating meaning units after analysis, as well as getting the opinion from an outside source, serves to validify the quality of translation, thus assuring that the meaning of the text is transmitted and transferred to the final results.

### 5.7 TRUSTWORTHINESS

The goal of qualitative research is to gain deeper knowledge and understanding of social phenomenon (Munhall, 2012). The validity of this research lies in the method used to answer the research question. The aim here is to describe a culture, with many dimensions and variables. Thus, the methodology adequately validates the findings.

Possible limitations to using a phenomenological approach includes possible bias from the researchers drawing conclusions based not only on findings from the data collected, but also factoring in their own personal pre-understanding of the topic, as well as the possibility of inexperienced researchers experiencing problems in receiving clear and accurate responses from the participants, due to researchers limited ability to ask the correct questions (Houser, 2018). Including a detailed description of the authors pre-understanding alleviates this problem, giving providing transparency into the pre-conceptions held by the authors, allowing the reader to judge the level of understanding held by the authors (Stenbacka, 2001).

#### 5.7.1 CREDIBILITY

Credibility lies in the researches ability to accurately analyze collected data, and present it in a truthful, consistent way. All steps of the research must be described, and results must be presented in a systematic way ((Malterud, 2012b).

In order to obtain credibility in the study, the authors included participants with different amounts of experience working in the ICU field. The various professions that comprise the day to day ICU team involved in patient care were also included in order to obtain an in depth and realistic view, including perspectives and varying aspects of the phenomenon. This richens the data collected and serves to provide credibility to the study (U.H Graneheim & Lundman, 2004b).

Further, credibility is achieved by transparency in the analysis of the data collected, the inclusion of quotes in order to illustrate how one moves from meaning units to themes, as well as including all findings in the analysis process. Categories and themes should adequately reflect the collected data, not excluding any findings due to perceived irrelevance (U.H Graneheim & Lundman, 2004b).

A possible limitation of the study is the failure to acquire participants from both the ICU nursing staff, physicians and management for the focus group interviews perhaps

weakening the initial idea of capturing the ICU team as a whole, and thereby gaining insights from the team in its entirety. We initially felt that interviewing the entire team together would capture the dynamic of the team in regards to implementation of EBP- In hindsight though, findings may indeed be more truthful having separated the professions. Polit & Beck, 2017, emphasize the importance of separating such groups into homogenous groups of people, in order to create a safe and comfortable dynamic within the interviews. Creating groups of participants that represent a variety of lived experiences, but similar in areas such as experience based knowledge, facilitates group dynamics through the members identifying with their peers and their experiences, thus leading to a richer discussion. Separating doctors, managers and nurses may also strengthen the results through the separation of different levels of the hierarchy, leading to a lesser degree of self-limiting in sharing experiences and, therefore, eliminating the danger of the possible negative side effect of silencing some participants due to hesitancy to speak truly and freely, for fear of disrespecting their leaders (Carey & Asbury, 2012), (Malterud, 2012b).

### 5.7.2 Dependability

Creating dependability of a study lies in the study´s resilience over time. That is, whether or not the study can be repeated, with similar findings, in a similar context with similar participants (Polit & Beck, 2017).

The aspect of time is an important one here, due to the data collection extending over a period of time, risking inconsistent findings (U.H Graneheim & Lundman, 2004b).

### 5.7.3 Transferability

Transferability refers to a study' ability to relate or be duplicated in similar settings or groups of participants or, whether or not the findings can be *generalized* to be relatable in such areas (Polit & Beck, 2017). In order to achieve transferability, it is of essence to present a clear and vivid picture of the context in which the study is performed. A description of the participants serves to increase transferability through offering a way in which the study can be related and transferred to other similar groups or settings. Also, presenting a concise and structured description of the analysis process, and a step-by-step guide to the road from meaning units to themes, using direct quotations from the data text may serve to add transparency to the study, thus achieving a higher level of transferability (U.H Graneheim & Lundman, 2004b). Literature provided as part

of the study provided shows that what is in question, i.e.; how to attain a successful implementation, is a known difficulty, thus it is the authors belief that similar findings would be found in similar settings.

### 5.8 Ethical Considerations

The study was approved by the research department at the University Hospital (attachment 3). This is in accordance with Norwegian research- ethics laws. Due to the nature of the data collection not containing sensitive personal information or information regarding patients, permission to conduct the study was not needed from the Regional Committee for Medical and Health Research Ethics. In order to uphold ethical standards of participation in such studies being on a volunteer-basis, participants were recruited by the lead nurse in the ICU. This upholds the standards of informed consent, so as to the potential participants not feeling any pressure from the researches to gain their participation. Potential participants received written information about the title and purpose of the study, as well as being informed of their opportunity to ask questions about the study and of their freedom to withdraw from the study at any time (Lov om medisinsk og helsefaglig forskning,2009; Munhall, 2012). Information and informed consent form are included as an attachment 1.

Both the audio recordings and the transcribed interviews were saved on an encrypted zip drive and kept behind two locks. Signed consent forms were kept separate from the transcribed materials and a connection key was created. All files will be deleted upon the completion and approval of the project- latest January 2021.

#### 5.8.1 Quality assurance

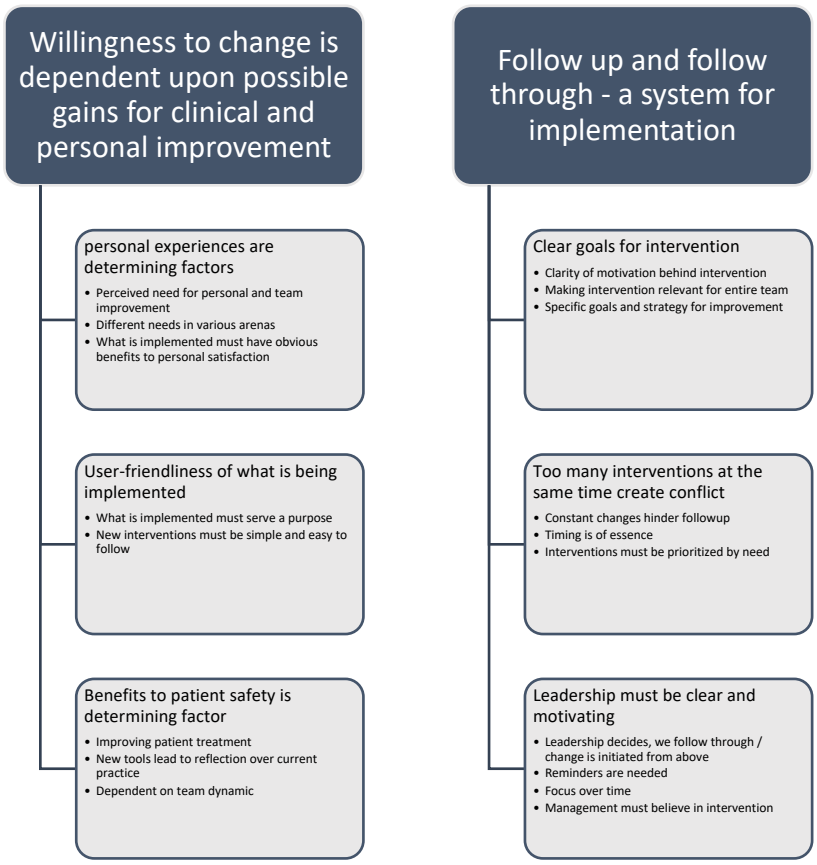
As a final step in assessing the quality of the research process and its corresponding steps, a checklist from the Norwegian Health Library (helsebiblioteket) was used. The checklist seeks to determine quality and trustworthiness of qualitative research through a series of questions relating to the written presentation of each of the research steps. The checklist is attached as attachment 4.

## 6.0 Results

Results in this chapter are presented in a diagram outlining the main themes with their corresponding categories and sub-categories.

Theme 1, *Willingness to change is dependent on the potential for clinical and personal gain,* answers the question of enablers and barriers for implementing new tools and procedures in the ICU.

Theme 2 *Follow up and follow through- a system for implementation*, answers the question of how to make an implementation sustainable over time.




## 7.0 Discussion

In the ICU CCNs are the professionals that work closest to the patients, executing treatment and caring for patient needs. In order to provide the best and safest care possible, it is important that the care and treatment provided is based on evidence. Due to CCNs closeness to the patients gives them a unique knowledge and position to see and reflect upon where needs for improvement and further research lies (Gawlinski, 2008). Though part of an extensive interdisciplinary team, the role of the CCN as the largest professional group in the ICU, CCNs therefore hold a large responsibility in the adoption and successful execution of such evidence-based care.

Studies show that even though EBPs are available, and intentions to follow exist, adherence to EBP many times fails, due to a number of reasons, including poor teamwork among interdisciplinary teams, time constraints, and the use of tradition-based practice many times lacking evidence and conflicting with new knowledge (Kalaldeh et al., 2014; Upvall et al., 2019).

A 2001 study conducted among CCNs in Australia, asks the question “Are critical care nurses ready for the emergence of evidence-based practices”? Noting an alarming lack of research from CCNs, the authors conducted a descriptive study of nearly 300 CCNs aiming to identify research skills among CCNs. The study showed that nearly half the CCNs felt they had not been provided necessary preparation to evaluate evidence-based research, and very few believed they had the skill to properly execute research themselves. There was a strong correlation between level of education, and the feeling of competency in evaluating and executing research (Bucknall et al., 2001). Level of education also seems to be of importance when it comes to adherence to EBPs that are being implemented, studies showing that nurses with post-graduate qualifications or more specific education about the EBP at hand are more likely to have a greater level of knowledge of EBP, and therefore are more likely to adhere to evidence- based guidelines (Jansson et al., 2013; Madhuvu et al., 2020; Yeganeh et al., 2019).

Further studies reveal that empowering nurses with expertise within research, closes the gap between tradition- based practice and evidence- based practice. Higher level nursing education strengthens the critical thinking and reflection skills of nurses, allowing them better evaluate how they work, more easily identifying need for change or improvement, as well as understand how to critically evaluate research literature. These studies highlight the need for nurses with a high level of competency in order to meet the increasing demands of intensive care units(Conley, 2019; Gerrish et al., 2011; Grønvik et al., 2018; Rojjanasrirat & Rice, 2017).

The study presented in this master’s thesis aimed to identify enablers and barriers in the implementation of evidence-based practice in the ICU. CCNs hold a large individual responsibility in promoting the implementation of and adherence to EBP in their workplace, both as team members and as independent practitioners working closely with patients. The scope of the findings of this thesis can contribute to the

understanding of factors that will facilitate the adoption and usage of best practices among the teams that work in the ICU and thus contribute to improved safety and quality of patient care.

## 8.0 Conclusion and implications for practice

The use of implementation research or theories contribute to better success rate with the implementation of evidence – based knowledge and practice. Critical Care Nurses have the closeness to the patients and their relatives, and hold the knowledge and qualifications to understand, reflect and act on the implementation of new knowledge. As well as support and lead the interprofessional team through the implementation processes and evaluate its effects in improving patient treatment and care.

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## PART TWO-ARTICLE

The Following section includes an article intended for submission to *BMJ Quality & Safety* journal. Authors Scope and information for authors is found in the following link: https://qualitysafety.bmj.com/pages/authors/#original_research

# HIGHLIGHTING THE NEED FOR USING AN IMPLEMENTATION MODEL IN THE PLANNING AND EXECUTION OF SUSTAINABLE INTERVENTIONS IN THE ICU: A QUALITATIVE STUDY

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Search terms: Qualitative research. Implementation. ICU. Intensive Care Unit. Critical Care Unit. Implementation- model. PARIHS.

ABSTRACT

**Introduction:** New evidence based practices are continuously introduced in the dynamic, fast changing and highly specialized environment of an Intensive Care Unit. There are a number of theories that predict the possible success of a new implementation and there exist numerous well-documented factors that need to be in place in order for a sustainable change of practice to occur. Despite this it is still difficult to implement new knowledge which is of sustainable use in the ICU. The TALK clinical debriefing tool has recently been introduced in the ICU of a Norwegian university hospital as part of a larger EU funded project based on the World Health Organization's recommendation that clinical staff use debriefing as a tool to improve patient safety and staff well-being.

**Aim:** The aim of this study is to identify enablers and barriers in the implementation of evience based practices in the ICU, using the implementation of the TALK clinical debrief tool as an example.

**Methods:** A qualitative study: Focus groups and individual interviews with critical care nurses, doctors and nurse managers were performed in an Intensive Care Unit at a Norwegian university hospital. In the analysis Qualitative Content Analysis was applied.

**Results:** The results suggest that, in general, there is a climate and a willingness to change but that it is dependent upon the potential gains for clinical and personal improvement. Further, there must exist an implementation system with a clear follow-up and follow-through plan for a change to become sustainable.

**Conclusion:** There were indications that improvements in organizational implementation planning are needed, including consideration of staff expectations, the perceived need for the change, how the potential change fits in with existing routines and if there are any other major organizational changes which can occur that can create conflict. All of these should be considered when introducing a change.

## INTRODUCTION

Intensive Care or Critical Care Units are highly specialized hospital wards caring for the critically ill or injured. It is a dynamic, fast changing environment where new evidence-based practices (EBPs) are adopted continuously in order to provide the best, and the safest patient care(Miller et al., 2012). The Norwegian Association of Critical Care Nurses ”description of functions and reasonability’s for intensive care nurses” states that it is the intensive care nurse’s responsibility to ensure quality improvement and to enhance skill competency by using systematic processes and an updated knowledge-based approach(Lykke, Paula M. E., 2020). Despite broad availability and a wish to provide patients with the best possible health care, as well as intentions to adopt best-practice protocols, implementing sustainable EBPs in the ICU has often been described as difficult (Allen et al., 2020; Miller et al., 2012; Rangachari et al., 2013). The past couple of decades has shown an increased focus on implementations processes and there exist numerous well documented factors that must be in place in order for something new to be useful, serve its intended purpose and become a sustainable change(Bjurling-Sjöberg et al., 2015; Dryden-Palmer et al., 2020; Gilhooly et al., 2019b; Hallam et al., 2018; Rycroft-Malone & Bucknall, 2013). There are multiple factors that contribute to creating a culture of willingness, understanding for change and furtherance of the goal to create new habits based on evidence. Both the will and the power to change depend on showing that it is needed, important, beneficial and worthwhile. The readiness for change must exist at the level of the individual, team and organization(Rafferty et al., 2013; Sharma et al., 2018; Weiner, 2009a). All healthcare staff have legal obligations to cooperate and coordinate the care provided with other qualified staff to ensure that the patient care meets both medical and professional norms and standards(Helsepersonelloven.hpl, 2001; Spesialisthelsetjenesteloven – sphl, 2001; Lykke, Paula M. E., 2020).

Within implementation science, there are many methods, theories and frameworks among which to choose. One implementation model that is frequently used and referred to is the Promoting Action on Research Implementation, (PARIHS) to determine implementation readiness, as well as barriers and enablers to the implementation process, and to identify key factors that contribute to the success or failure of implementation of new knowledge(Kitson et al., 1998). The model is based

on three core elements: Evidence, context and facilitation. What seeks to be implemented must be based on evidence. The context of implementation must be an openness to change. Leadership must be strong, and there must exist effective monitoring and feedback systems. Finally, there must be one or more facilitators in place to ease the process of implementation(Kitson et al., 1998).

As part of a larger, EU funded project, based on the World Health Organization's recommendation that clinical staff use debriefing as a tool to better patient safety and staff well-being(*Talkdebrief.Org*, n.d.), the TALK clinical debriefing tool (Target, Analysis, Learning points, Key actions) is being introduced in the ICU of a Norwegian university hospital and will be used as an example of an implementation process in our study. Evidence shows that debriefing before and after critical events, as well as after events with a positive outcome, increases individual and team performance, as well as increases the value of participants' self-assessment(Tannenbaum & Cerasoli, 2013; Thompson et al., 2018)). TALK is designed to promote both patient and staff safety, as well as to encourage a culture of support and learning(*Talkdebrief.Org*, n.d.). To initiate, cooperate and take responsibility for patient safety through multidisciplinary collaboration is an important role of a CCN (Lykke, Paula M. E., 2020). The attention on patient safety has increased in the last decade. According to the "National Action Plan for Patient Safety and Quality Improvement", produced by the Norwegian Directorate of Health, in order to create a targeted and coordinated effort to improve patient safety, it is essential to work systematically and together across medical professions in order to prevent and reduce harm to patients. According to the National Action Plan it is also an important leadership task to enable learning and quality improvement to ensure that errors are not repeated(*I Trygge Hender 24/7*, n.d.).

The authors of this paper have several years' experience working as nurses in different wards of the University hospitals. They have also completed clinical rotations in the ICU, as students of critical care nursing. As both experienced nurses, as well as students, the authors are aware of constantly changing work environments due to implementation of new evidence-based practices. It is the experience of the authors that, while implementation research and theory are readily available, implementation

of new knowledge in the ICU seem to fall through the cracks, many never being adopted into regular practice.

The aim of this study is to identify enablers and barriers in the implementation of Evidence-based practices in the ICU, and how to sustainably implement these, using TALK as an example of implementation.

## METHOD

This is a qualitative research study based on focus-group interviews and individual interviews of CCNs, physicians and nurse managers in a general ICU of a Norwegian university hospital. The interviews were semi-structured, focusing on the participants´ views and experiences regarding general implementation of new knowledge in their wards, and using the ongoing implementation of TALK as an example.

Using the qualitative method in researching implementation related issues is important due to the nature of the how to of implementation as well as the why some EBPs are more easily implemented than others. Providing qualitative research with regard to this issue gives insight into what occurs and why when a new practice or norm is to be implemented(Hamilton & Finley, 2019).

## CONTEXT

The study was performed in an ICU of a university hospital in Norway, comprised of three separate wards, including the general ICU, post-operative ward, and the otolaryngology surgical ward. The nurse staff includes130 CCNs and Registered Nurses' positions, where the CCNs (nurses with a master's degree in critical care or formal ICU education) work in rotation, staffing all three wards. In the ward there are also many foreign nurse substitutes. The physicians' staff is made up of ICU physicians, Anaesthesiologists, and physicians pursuing a degree within anaesthesiology.

While planning the study, the researchers aimed to interview ICU staff prior to TALK implementation in order to collect baseline data related to the research questions. However, due to delays in the approval process, the project interviews took place 6 weeks after the staff had been introduced to the TALK framework, and the intended usage of it had been partially implemented. All management and 90% of the nursing staff had reportedly received an introduction to the framework, attended a TALK class,

including simulation of how to use TALK in their day to day work. They were also told that it was a tool intended for use by all clinical staff. The physician staff had attended a separate introduction class, though, unfortunately, not all staff doctors were able to, or invited to attend introduction class.

It is also important to note that two weeks after the implementation of TALK, the general ICU implemented an electronic medical chart system into their daily work. This electronic charting system replaced the previous handwritten charting that had been in place for several years.

### Sample

An inductive, explorative design was applied. Two focus group interviews were conducted, each comprised of 5 CCNs. Individual interviews were conducted with two members of the nurse management staff, as well as two physicians. All participants were females, with clinical experience ranging from 5 to more than 20 years. Interviews were conducted in a conference room of the ICU during participants´ working hours, with both researchers attending all of the interviews.

### Analyzing Data

Interviews were audiotaped, and, immediately afterwards, transcribed. Participants were unidentified in the transcriptions. Data was analyzed by means of Qualitative Content Analysis by both researchers as part of a thorough process (Kitson et al., 1998).

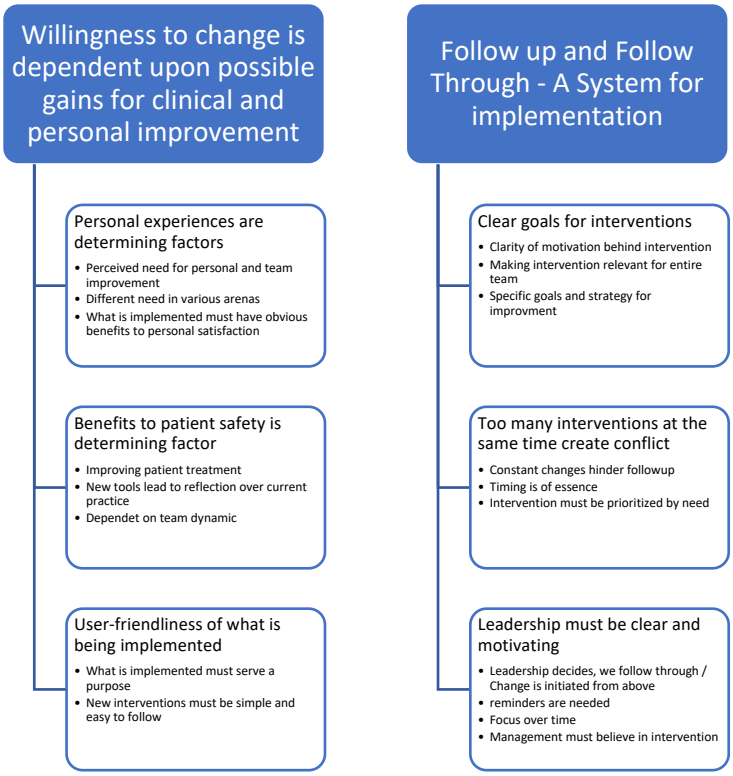
### Ethical Considerations

The research was approved by the research department and the Data Protection official (ID MA206) of the university hospital where the study was performed. The participants were informed about the study´s aims and recruited by the lead nurse in the ICU, this to ensure that participation was on a volunteer basis and without bias. All participants signed a consent form before the interviews.

### Results

The aim of the study was to identify enablers and barriers in implementing EBPs in the ICU, and how to sustainably implement TALK as an example of an implementation process. The data that emerged from the interviews resulted in two main themes, each

with corresponding categories and subcategories: 1. Willingness to change is dependent upon possible gains for clinical and personal improvement. 2. Follow-up and follow-through, including an implementation process plan, were crucial.




Attached, (table 1 & 2) are quotes from interviews from which were derived the results, according to the themes, categories and subcategories.

### Willingness to Change is Dependent upon Possible Gains for Clinical and Personal Improvement

This main theme that emerged indicates that what is to be implemented must be of great importance and must have obvious benefits if it is going to be used by the health care staff in the ICU. Benefit may be in the form of improving quality of care and patient safety or provide personal gain for the user. Factors that strongly affect the implementation are the individual staffs´ views of the specific intervention: Is it easy to use? Do they see the value of it? Does it result in an improved team dynamic? Within this main theme three categories emerged:

#### 1. Personal experiences are determining factors

Findings show clearly that previous experiences are strong determinants of whether or not a new tool is used. Participants express frustration over the implementation of tools that aim to better areas in which they do not perceive the need for improvement.

> "…We don't need to improve things that are working well.." (Nurse C, interview)

With regard to TALK, mixed attitudes were apparent. Some expressed negativity toward the tool due to the feeling of it being redundant and aiming to fix something that did not need fixing. Many felt that team communication was an area in which the team performed well, and therefore did not see the value of a structured clinical debrief.

> "Honestly, I personally don't see the value of it…I don't think anything has changed with TALK" (nurse, interview 2)

On the other hand, others expressed a positive view of TALK, and showed more openness to using it as they were able to see the potential gains to clinical practice.

> "…Yes, but it is…it is good to have that tool to pull things together…simplifying it (debriefing)…", Nurse E, interview 1)

The TALK tool is designed to facilitate learning not only after serious incidents, but also after episodes with positive outcomes. The idea is that a short debriefing in order to identify positive aspects will contribute to learning (*Talkdebrief.Org*, n.d.). Conceptualizing what went well will facilitate repetition of such positive behaviour or outcomes, and key aspects of positivity will transfer to other similar situations. Participants offered differing opinions with regard to debriefing positive outcomes, most not seeing the potential gains from focusing on positive outcomes.

### 2.Benefit to patient safety is determining factor

There was strong agreement among the participants that the use of procedures and protocols simplifies and facilitates safe and consistent patient treatment. Willingness to use such tools is strong and the participants valued the benefits of clear procedural steps in clinical work.

> "…But it is beneficial to have clear procedures…you can refer to that, it has to do with patient safety…." (Nurse A, interview1).

> "…we don't do everything the same way…we can't…well we aren't the same…but we need to try and lay the framework so that we…well that's a goal…" (Nurse E, interview 1).

With regard to the TALK tool, opinions again differed- some not seeing the value of a structured debriefing tool in adding to learning and improving patient safety, in the same way a strictly clinical, step by step "how to" manual for clinical procedures facilitates patient safety. Some, however, were able to identify advantages in using such a tool in order to enhance performance and improving overall treatment of the critically ill.

### 3. User friendliness of what is being implemented

In addition to potential personal and patient safety gains, participants expressed the importance of user-friendliness as a strong determinant in whether or not new tools, procedures and protocols are actively used.

> "…I believe that if something is to be used in the day-to-day, then it needs to be simple to use, and it needs to… the person who is going to use it needs to feel that it is useful… that inspires to use it actively…if you feel that you get something back from it…" (Doctor)

Also, on this point, the participants had various opinions about the TALK tool, some describing the framework of the tool as disruptive for communication flow and hindering adequate expression as well as expressing difficulties in knowing in what situations TALK is appropriate.

### Follow-Up and Follow-Through - A system for Implementation

> "….it is really, really important that you have a clear strategy in relation to the things you want to change…." (Management)

Our study indicates that a strong indicator for whether or not an implementation is successful is the robustness of the systems in which the new Evidence-based practice

is implemented. This system requires clear goals for the intervention, consideration of whether the timing is right, and that there is enough time available in order to focus on what is to be changed.

> "…Well… there has to be some kind of system to it…" (Nurse A, interview 1)

> "… I believe the most important thing is that you introduce interventions with a system, a plan, and a goal…and perhaps this is where we have an improvement potential…." (Management)

Again, within this main theme three categories emerged:

### 1. CLEAR GOALS FOR INTERVENTIONS

When it comes to the example of implementation of TALK in the ICU, there were no specific goals or strategies defined at the time of the data collection, which was something participants expressed concern about. Interviews with management affirmed this and they saw the need for clearer structure and defined goals in order to properly and sustainably implement TALK in the ICU.

In an multiprofessional ward, where there are different professions working as a team, the implementation of new interventions must be made relevant for the entire team to enable sustainable change. This includes the need for expanding the intervention team to include participants from the different professions and also the importance of ensuring that all the different team members receive information and knowledge about the intervention.

> "…and the whole team has to have knowledge about the principles and especially those who end up as team leaders … I feel I have a key role in that…." (Doctor).

### 2. TOO MANY INTERVENTIONS AT THE SAME TIME CREATE CONFLICT

> "… Planning when we actually start new things… actually investigating which other projects are being planned…" (Nurse A, interview 2)

Further, the participants emphasized the need for planning with regard to timing of an implementation, and expressed frustration about too many things being implemented

in the ICU at the same time, or new implementations beginning before the former had had a chance to become the new norm;

> "…If there are too many things going on at the same time…then you actually need to choose and prioritize a bit…." (Nurse C, interview 2)

One concern repeated many times over the course of both of the group interviews, as well as the individual interviews, was that when more than one initiative is presented at or nearly at the same time, they distract from each other and reduce the sustainability of both. This is especially relevant for the findings related to the implementation of TALK, as another major implementation took place only a few weeks following the introduction of TALK in the ICU. Several participants described that though interest for TALK had initially been high, it was immediately overshadowed by the implementation of the electronic medical charts.

### 3. Leadership must be clear and motivating

> "…. We know we are supposed to do it but… after a while it wears off, perhaps, and by that time the management isn't as "on" anymore because they've done their job starting the project and then they pass the ball on to us…" (Nurse B, interview 2)

Another major obstacle that was revealed is the importance of management, not only when introducing new initiatives, but following through over time in order to properly implement them. Several participants mentioned this as a defining factor in the implementation of TALK. Managers of the ward also agreed with the importance of management follow-up.

The study found that the time spent focusing on what is to implemented plays a large role in the potential success of the implementation. How new knowledge is implemented is not only important in the very beginning, but also further down the line. The findings show that having a clear goal in place, one that can be measured and evaluated, eases the implementation process.

> "For new things to be used… there must be a very clear and strong and long focus…and it is up to us to spend enough time and, most importantly, ask them to use it…" (management)

Several of the participants emphasized this aspect, describing reminders over time and focus from management as essential.

> "…If you were asked regularly (for example on the pre visit) …then you would become more aware, and probably prioritize it…." (doctor)

> "…yes, but it's not enough (passing the ball along) …one of the most important things to me as a manager of the department is to keep focus and not have too many other things that come in from the sidelines…." (Management)

Though mixed attitudes regarding the potential use and value of TALK among the nurses and doctors, managers of the ward expressed enthusiasm regarding the potential uses of the tool. This is seen as a great enabler for future use.

## DISCUSSION

The aim of this study is to identify enablers and barriers in the implementation of Evidence-based practices in the ICU, and how to sustainably implement these, using TALK as an example of implementation. The "Promoting Action on Research Implementation in Health Services (PARIHS)" framework states that a successful implementation of evidence into practice is dependent on the quality and the type of evidence, the characteristics of the setting, or context, and the way the evidence is introduced or facilitated into practice(Harvey & Kitson, 2015; Kitson et al., 1998; Rycroft-Malone & Bucknall, 2013). In our discussion we will present and discuss the implementation of TALK in the ICU, what enabled the implementation and what barriers were encountered with regard to the three interactive core elements of the PARIHS framework.

### EVIDENCE

In the PARIHS framework, results of research illustrating the benefits of what is being implemented seems to be of high value in determining whether or not an implementation will be well received among the people intended to use it (Geerligs et al., 2018).

Further, previous experience of the targeted users of the implementation, as well as their preferences, plays a determining role in the potential success of a sustainable intervention.

Lack of research on the validity of the issue tends to indicate a lower degree of readiness or willingness to change current practice. This rings true in the findings of this study, in that several of the participants expressed resistance to the use of TALK due to uncertainties regarding how to use the tool, and not perceiving how the tool could potentially facilitate learning within the team, as well as lead to safer patient treatment (Bjurling-Sjöberg et al., 2015; Hallam et al., 2018; Weinert & Mann, 2008). Also, though the use of debriefing was accepted as a positive and recognized learning tool after serious or tragic incidents, many of the participants did not see how TALK could translate into their idea of what a debrief entails.

Studies show that implementation is more difficult when the intervention protocol needs to be repeated several times before improvement is noted (Weinert & Mann, 2008). This could be the case for the implementation of TALK, as the protocol for use of the tool must be repeated in order to affect change. Thus, lacking instant gratification from the use of TALK may affect how and if it is used.

A common theme throughout both group interviews with CCNs, as well as physician interviews, was that there was a feeling that current practice in how they communicate with their team, and how decisions are made was adequate, and they saw no possible advantages in the use of TALK in improving communication(Geerligs et al., 2018).

A study conducted in order to find key factors influencing the adoption of innovations in health care, found that the characteristics of the innovation presented was of more importance than the systems in which it was implemented(Carlfjord et al., 2010). This indicates that when staff are able to see the benefits of what is being implemented, they are more likely to comply, thus more easily adopting new ways of working(Geerligs et al., 2018).

### CONTEXT

In evaluating the context of where an implementation is to take place, emphasis is placed upon the leadership of the ICU, and to what degree they actively support and facilitate the priority of the implementation. Equally important is the culture of the ward

in which a new intervention is to be implemented (Dryden-Palmer et al., 2020; Rafferty et al., 2013; Sharma et al., 2018; Weinert & Mann, 2008). This requires consideration of the morale among the employees at the time, and whether or not they are open and willing to change the way they do their jobs. Through interviews, it emerged that though managers clearly believed in the potential benefits of the TALK tool and had themselves adopted the framework into their daily activities, this attitude had not been made visible for the employees in the ICU team. Several of the CCN interviewed expressed frustration due to the lack of follow-up from their managers in the use of the TALK tool. They expressed feelings of TALK not being important to management due to it not being discussed, and not being reminded to focus on TALK, therefore adopting a feeling that the use of TALK is voluntary and not important. The importance of leadership support for what is to be implemented is described by Carlfiord et. al (Carlfjord et al., 2010) as a key point in the successful and sustainable implementation of an intervention. On the other hand, morale among the teams seemed high, and willingness to change the way they work in order to provide high quality patient care is the highest priority. They expressed the value of communication within the team and indicated that communication between team members was not a problem, and that discussions about patient care was commonplace and encouraged, though simultaneously expressing that these discussions do not necessarily lead to change or improvement in the way they work.

Another aspect described as a barrier for the implementation of the TALK was the nearly simultaneous transition from paper medical chart, to the use of an electronic medical chart in the ICU. In an implementation guide provided by Stetler et. al(Stetler et al., 2011), the identification of timing and conflicts with other priorities that may interfere with implementation is an important factor to identify in the planning stages of implementation, this in order to assure focus on creating sustainable implementation. At the time of TALK implementation, the implementation of electronic charts was already planned, thus creating a conflict between the two interventions. Both the literature and participants in the current study expressed difficulty in focusing on both implementations at the same time, this leading to the apparent dropping of implementation of TALK(Geerligs et al., 2018; Kirk et al., 2016b). Spacing the implementation of these interventions could have led to a more successful outcome for TALK. Further, participants expressed frustration with the follow-up of the use of

TALK and indicated a lack of system with which to evaluate and track progress in the use of the tool.

### FACILITATION

The TALK framework was introduced to the staff in the ICU by members of the TALK research team. No members of the staff in the ICU were a part of the team and no one was assigned a role as TALK "Champion" or facilitator. This, according to participants in the study, led to the "buzz" around this new way of debriefing fading quickly, as no one was given the task of "Keeping it hot" and prompting the regular use of the tool. The use of champions in implementation, is said to be an important factor for the sustained success of the implementation(Bjurling-Sjöberg et al., 2015; Green et al., 2017b; Sharma et al., 2018; Weiner, 2009a). On the contrary, however, some studies indicate that the use of champions is not a key factor in successfully implementing new protocols or tools. Rather it is the creation of interest among the key staff who are intended to use the tool or protocol, building a bottom-up structure of interest and investment as critical key factors leading to a successful implementation (Helsepersonelloven.hpl, 2001; Rafferty et al., 2013)

### CONCLUSION

Our findings suggest that the individual staff members´ and teams' views, beliefs and their established ways of practice can significantly determine whether or not TALK will be a tool that becomes incorporated in their day-to-day practice as intended. Our results show that the "can do" factors are in place, and that there is a general willingness to change among the staff. It is our opinion that, if the implementation team are able to create a desire among multiprofessional keyholders who work in the ICU to motivate and promote understanding of the TALK tool, the result can be sustainable implementation of TALK. Though implementation research is extensive and available, our study indicates that there exists a gap between implementation knowledge and theory and the actual implementation of innovations in the ICU. Our results suggest that, to a great degree, the difficulties lie within the follow-up and follow-through of the implementation process, indicating an opportunity for improvement in the planning of, and supervision of the time demanding process of introducing and adopting new processes.

IMPLICATIONS FOR PRACTICE: Based on our result, when planning an implementation, factors such as staff expectations, the perceived need for the change, how it fits in with existing routines and whether there are other major concurrent organizational changes which can create conflict, need to be assessed and taken into account. Further research is needed in order to highlight and evaluate current practices and create a pathway for efficient and sustainable implementation of Evidence-Based Practices.

### RELIABILITY AND VALIDITY OF THE STUDY

The study presented aimed to gain a deeper knowledge and understanding regarding implementation of new EBPs in the ICU. This is relevant for anyone seeking to implement something new into their ward. Steps were taken to assure proper validity of the study through providing transparent descriptions of data material, as well as providing sufficient information power in order to adequately answer the proposed purpose of this paper(Carlsen & Glenton, 2011; Malterud et al., 2016).

The authors connection to the ward where interviews took place may serve as a limitation to the study, though steps were taken define the authors pre-understanding in order to give the reader clear insight into these. Previous connection to the ward may have also served as a benefit to the data collection, due to the participants feeling comfortable in sharing their views with known persons.

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# ATTACHMENT 1

Dette er en forespørsel til deg om å delta i et forskningsprosjekt hvor vi ønsker å få mer kunnskap om muliggjørere og barrierer til innføringen av nye verktøy og prosedyrer i en klinisk hverdag. Vi ønsker å vite mer om hvordan helsepersonell lærer individuelt og i team, av hverandre, av suksesser, og feil. Det kliniske debrief verktøyet TALK innføres på SUS. Vi ønsker helsepersonells tanker omkring verktøyet, hva kan det brukes til og hvordan kan det påvirke sykehusets sikkerhetskultur og arbeidskultur til pasientenes beste.

Helse Stavanger er blitt med i et EU prosjekt der sykehus i Barcelona, Cardiff og Stavanger samarbeider for å lære om innføring og mulige effekter av TALK Debrief (EU MSCA-RISE Grant Agreement 734753 AMD-6). Helse Stavanger vil innføre klinisk debriefing som et ledd i kvalitetsforbedring og økt sikkerhetskultur. Din avdeling har vist interesse i å satse på dette området. Alle ansatte på din avdeling blir spurt om å være med å delta i løpet av datainnsamlingsperioden. Derfor blir du spurt nå.

## HVA INNEBÆRER PROSJEKTET?

Deltakelse i forskningen innebærer at du deltar i et fokusgruppeintervju med ca 60 minutters varighet.

I prosjektet vil vi kun hente inn og registrere avidentifiserte opplysninger om deg – kun din rolle i avdelingen. Det blir ikke registrert identifiserbare opplysninger - ikke navn/personnummer. Det du sier blir ikke koblet til ditt samtykke, og vil ikke kunne spores tilbake til deg.

## MULIGE FORDELER OG ULEMPER

Deltakelse i dette forskningsprosjektet er frivillig og skal ikke være forbundet med ulemper av noe slag. Du står fritt til å trekke deg før, under eller etter intervjuet dersom du ønsker det uten at det får noen konsekvenser for deg. Data fra deg vil da bli slettet og ikke brukt videre i prosjektet.

## FRIVILLIG DELTAKELSE OG MULIGHET FOR Å TREKKE SITT SAMTYKKE

Det er frivillig å delta i prosjektet. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Du kan når som helst, og uten å oppgi noen grunn, trekke ditt samtykke. Dersom du senere ønsker å trekke deg eller har spørsmål til prosjektet, kan du kontakte Pia Silverstone, tlf 47344644, mail: papiars@hotmail.com, eller Lena Emelie Larsson, tlf. 40344176, lena.e. larsson@hotmail.com

## HVA SKJER MED OPPLYSNINGENE OM DEG?

Det samles ikke identifiserbare opplysninger om deg. Det blir kun spørsmål om din rolle på avdelingen. Det vil ikke kunne spores tilbake til deg. Du har også en rett til å få innsyn i sikkerhetstiltakene ved behandling av opplysningene/data.

Data er avidentifisert og beholdes i fem år etter prosjektslutt (14.08.22), og vil da bli slettet.

## GODKJENNING

Regional komité for medisinsk og helsefaglig forskningsetikk trenger ikke vurdere dette prosjektet, i og med at prosjektet har helsetjensteforskning som formål, og ikke å fremskaffe ny kunnskap om helse og sykdom (Helseforskningsloven §4).

Personvernombudet ved Helse Stavanger har godkjent datasamlingen. Ledergruppen på SUS har godkjent at Helse Stavanger deltar i EU TALK Debrief prosjektet, som innebærer forskning på innføring av TALK Debrief på sikkerhetskultur (ref: Ledergruppemøtereferat, sak 195/18, 02.10.2018)

KONTAKTOPPLYSNINGER

Dersom du har spørsmål til prosjektet kan du ta kontakt med

Senior Rådgiver SUS Britt Sætre Hansen, tlf. 99021954, britt.setre.hansen@sus.no ; britt.s.hansen@uis.no

Personvernombud ved institusjonen (Helse Stavanger) er Rafal Adnan Hashim Yeisen, rafal.adnan.hashim.yeisen@sus.no

(Deltaker) Jeg samtykker til å delta i prosjektet og at personopplysninger brukes slik det er beskrevet

- - - - - - - - - - - - - - - - - - - - - - -
Sted og dato Deltakers signatur

- - - - - - - - - - - - - - -
Deltakers navn med trykte bokstaver

(Forsker) Jeg bekrefter å ha gitt informasjon om prosjektet:

- - - - - - - - - - - - - - - - - - - - - - -
Sted og dato Signatur

- - - - - - - - - - - - - - -
Rolle i prosjektet

# ATTACHMENT 2

Takk for at du vil delta.

Vi vil be deg besvare noen spørsmål I forhold til din erfaring med innføringen av nye prosedyrer og (klinisk) debriefing i din avdeling. Vi vil også gjerne vite hva du mener om TALK debriefing verktøyet og hvilke erfaringer du har med bruken av det.

Dato_____Intervjuer: _____

**Demografiske data**

1. Alder _____

2. Kjønn: mann ☐ kvinne ☐ annet ☐ ønsker ikke å svare ☐

1. Hvor mange års erfaring har du fra helsevesenet?

   1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ mer enn 20 ☐

2. Hvilket yrke har du?

   Lege ☐ Sykepleier ☐ Annet helsepersonell ☐ Administrativ ☐ Annet ☐

   Tilleggsopplysninger (frivillig) _____

**Intervjuguide**

**Implementering**

1. Hvorfor mener du at noen ting blir lettere implementert/innført enn andre?
2. Hva tenker du er det viktigste for at et nytt verktøy eller en ny prosedyre skal være en suksess?
3. Hva kan være vanskelig med å implementere/innføre en ny prosedyre?

**Debriefing**

1. Beskriv ditt team på jobb
2. Beskriv hvordan du deler dine ideer, meninger og refleksjoner om pasientbehandling og pleie med teamet ditt.
3. Kan du beskrive læringsmuligheter du møter i løpet av en vanlig arbeidsdag.
4. Hvordan går du frem når du forstår at det er viktig å forslå en endring i pasientbehandling og pleie?
5. Beskriv hva du legger i begrepet debriefing?
6. Fortell om dine erfaringer med debriefing?
7. Hvordan opplever helsepersonell behovet for team (klinisk) debriefing for i et lærings- og forbedringsøyemed?
8. I hvilke situasjoner kan en bruke (klinisk) debriefing og hvorfor?
9. Hvordan kan (klinisk) debriefing organiseres, gjennomføres og vedlikeholdes I din avdeling?

**Debriefing med TALK**

*TALK kortet legges frem for informatene, begge sider vises og leses.*

*(sier intervjuer) "Legg merke til at en TALK debrief ikke skal ta mer enn 10 minutter."*

10. Hva synes du om TALK strukturen? (De 4 punktene)

11. Hva synes du om TALK verdiene?

12. Hvordan kan TALK debrief verktøyet være nyttig for ditt team på jobb?

13. I hvilke situasjoner vil du starte en TALK debriefing?

14. Når vil det være mest hensiktsmessig for hele teamet å ta en TALK debriefing?

15. Hvilke barrierer vanskeliggjør en debriefing?

16. Hvilke løsning vil du foreslå?

17. Hvordan vil du følge opp nøkkeltiltakene etter en debriefing?

18. Kommentarer? Takk for at du deltok!

ATTACHMENT 3

HELSE STAVANGER
Stavanger universitetssjukehus

Forskningsavdelingen

# Notat

**Til:**

Klinikksjef, Juridisk rådgiver Ina Trane

**Fra:**

Fagsjef Kirsten Lode/mv

**Kopimottakere:**

Lena Emelie Larsson **Dato:** 18.10.2019

**Arkivref:** 2019/16935 - 133611/2019

## Registrering av masterprosjekt - Lena Emelie Larsson

Det vises til søknad om godkjennelse av masterprosjektet:
«Identifying readiness, enablers and barriers in the implementation of TALK in the ICU. Why

do some things stick while others are quickly forgotten?». Saksmappen finnes i Elements: 2019/16935.

Saken ble mottatt per epost og behandlet av representanter fra Forskningsavdelingen og Personvernombud i møte 17.10.2019.

Forskningsavdelingen anbefaler at prosjektet startes i henhold til protokoll da nødvendige tillatelser foreligger.

Dersom klinikksjef/systemansvarlig for journal har innvendinger mot dette ber vi om å få dem innen 3 virkedager. I motsatt fall vil oppstartstillatelse bli gitt.

ATTACHMENT 4

## Hvordan bruke sjekklisten

Sjekklisten består av tre deler:

- Innledende vurdering
- Hva forteller resultatene?
- Kan resultatene være til hjelp i praksis?

I hver del finner du spørsmål og tips som hjelper deg å svare. For hvert av underspørsmålene skal du krysse av for «ja», «uklart» eller «nei». Valget «uklart» kan også omfatte «delvis».

## Om sjekklisten

Sjekklisten er laget som et pedagogisk verktøy for å lære kritisk vurdering av vitenskapelige artikler. Hvis du skal skrive en systematisk oversikt eller kritisk vurdere artikler som del av et forskningsprosjekt, anbefaler vi andre typer sjekklister.
Se www.helsebiblioteket.no/kunnskapsbasert-praksis/kritisk-vurdering/sjekklister

Har du spørsmål om, eller forslag til forbedring av sjekklisten? Send e-post til Redaksjonen@kunnskapsbasertpraksis.no.

Denne sjekklisten er inspirert av «10 questions to help you make sense of qualitative research» fra CASP. Critical Appraisal Skills Programme (CASP). CASP Checklists. Oxford: CASP UK [oppdatert 2017; lest 23.11.2017]. Tilgjengelig fra: http://www.casp-uk.net/checklists

kunnskapsbasertpraksis.no

# (A) Innledende vurdering

## 1. Er formålet med studien klart formulert?

**Tips:**

- Hva ville forskerne finne svar på (problemstilling)?
- Hvorfor ville de finne svar på det?
- Er problemstillingen relevant?

**☐ JA**

**☐ UKLART**

**☐ NEI**

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## 2. Er kvalitativ metode hensiktsmessig for å få svar på problemstillingen?

**Tips:** Har studien som mål å forstå og belyse, eller beskrive fenomen, erfaringer eller opplevelser?

**☐ JA**

☐ **UKLART**

☐ **NEI**

# Skal du fortsette vurderingen?

**Tips:**

Hvis du svarte NEI på et av spørsmålene over kan du kanskje like godt legge bort artikkelen og finne en annen.



## 3. Er utformingen av studien hensiktsmessig for å finne svar på problemstillingen?

**Tips:**

• Er utvalgsmetode, måte å samle inn data på og måte å analysere data på beskrevet?

☐ **JA**

☐ **UKLART**

☐ **NEI**

## 4. Er utvalgsstrategien hensiktsmessig for å besvare problemstillingen?

**Tips:** Når man bruker f.eks. *strategiske utvalg* er målet å dekke antatt relevante sosiale roller og perspektiver. De enhetene som skal kaste lys over disse perspektivene er vanligvis mennesker, men kan også være begivenheter, sosiale situasjoner eller dokumenter. Enhetene kan bli valgt fordi de er typiske eller atypiske, fordi de har bestemte forbindelser med hverandre, eller i noen tilfeller rett og slett fordi de er tilgjengelige.

- Er det gjort rede for hvem som ble valgt ut og hvorfor?
- Er det gjort rede for hvordan de ble valgt ut (utvalgsstrategi)?
- Er det diskusjon omkring utvalget, f.eks. hvorfor noen valgte å ikke delta?
- Er det begrunnet hvorfor akkurat disse deltagerne ble valgt?
- Er karakteristika ved utvalget beskrevet (f.eks. kjønn, alder, sosioøkonomisk status)

☐ **JA**

☐ **UKLART**

☐ **NEI**

## 5. Ble dataene samlet inn på en slik måte at problemstillingen ble besvart?

**Tips:** Datainnsamlingen må være omfattende nok i både bredden (typen observasjoner) og i dybden (graden av observasjoner) om den skal kunne støtte og generere fortolkninger.

- Ble valg av setting for datainnsamlingen begrunnet?
- Går det klart frem hvilke metoder som ble valgt for å samle inn data? F.eks. intervjuer (semistrukturerte dybdeintervjuer, fokusgrupper), feltstudier (deltagende eller ikke- deltagende observasjon), dokumentanalyse.
- Er måten dataene ble samlet inn på beskrevet, (f.eks. beskrivelse av intervjuguide)?
- Er metoden endret i løpet av studien? I så fall, har forfatterne forklart hvordan og hvorfor?
- Går det klart frem hvilken form dataene har (f.eks. lydopptak, video, notater)?
- Har forskerne diskutert metning av data?

## 6. Ble det gjort rede for bakgrunnsforhold som kan ha påvirket fortolkningen av data?

**Tips:**

- Har forskeren vurdert sin egen rolle, mulig forutinntatthet og påvirkning på:
    1. utforming av problemstilling
    2. datainnsamling inkludert utvalgsstrategi og

       valg av setting

    3. analyse og hvilke funn som presenteres
- På hvilken måte har forskeren gjort endringer i utforming av studien på bakgrunn av innspill og funn underveis i forskningsprosessen?

**☐ JA**

**☐ UKLART**

**☐ NEI**

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**☐ JA**

**☐ UKLART**

**☐ NEI**



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## 7. Er etiske forhold vurdert?

☐ **JA**

☐ **UKLART**

☐ **NEI**

**Tips:**

- Er det beskrevet i detalj hvordan forskningen ble forklart til deltagerne for å vurdere om etiske standarder ble opprettholdt?
- Diskuterer forskerne etiske problemstillinger som ble avdekket underveis i studien? Dette kan f.eks. være knyttet til informert samtykke eller fortrolighet, eller håndtering av hvordan deltagerne ble påvirket av det å være med i studien.
- Dersom relevant, ble studien forelagt etisk komité?

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## 8. Går det klart frem hvordan analysen ble gjennomført? Er fortolkningen av data forståelig, tydelig og rimelig?

**Tips:** En vanlig tilnærmingsmåte ved analyse av kvalitative data er såkalt innholdsanalyse, hvor mønstre i data blir identifisert og kategorisert.

- Er det gjort rede for hvilken type analyse som er brukt (f.eks. grounded theory, fenomenologisk analyse etc.)?
- Er det gjort rede for hvordan analysen ble gjennomført (f.eks. de ulike trinnene i analysen)?
- Ser du en klar sammenheng mellom innsamlede data (f.eks. sitater) og kategoriene som forskerne har kommet frem til?
- Er tilstrekkelige data presentert for å underbygge funnene?
- I hvilken grad er motstridende data tatt med i analysen?

### Basert på svarene dine på punkt 1 – 8 over, mener du at resultatene fra denne studien er til å stole på?

☐ **JA**

☐ **UKLART**

☐ **NEI**

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☐ **JA**

☐ **UKLART**

☐ **NEI**

# (B) Hva er resultatene?

## 9. Er funnene klart presentert?

**Tips:** Kategoriene eller mønstrene som ble identifisert i løpet av analysen kan styrkes ved å se om lignende mønstre blir identifisert gjennom andre kilder. For eksempel ved å diskutere foreløpige slutninger med studieobjektene, be en annen forsker gjennomgå materialet, eller få lignende inntrykk fra andre kilder. Det er sjeldent at forskjellige kilder gir helt like uttrykk. Slike forskjeller bør imidlertid forklares.

- Er det gjort forsøk på å trekke inn andre kilder for å vurdere eller underbygge funnene?
- Er det tilstrekkelig diskusjon om funnene både for og imot forskernes argumenter?
- Har forskerne diskutert funnenes troverdighet (f.eks. triangulering, respondentvalidering, at flere enn en har gjort analysen)?
- Er funnene diskutert opp mot den opprinnelige problemstillingen?

**☐ JA**

**☐ UKLART**

**☐ NEI**

# (C) Kan resultatene være til hjelp i praksis?

## 10.Hvor nyttige er funnene fra denne studien?

**Tips:** Målet med kvalitativ forskning er ikke å sannsynliggjøre at resultatene kan generaliseres til en bredere befolkning. I stedet kan resultatene være overførbare eller gi grunnlag for modeller som kan brukes til å prøve å forstå lignende grupper eller fenomen.

- Har forskerne diskutert studiens bidrag med hensyn til eksisterende kunnskap og forståelse, vurderer de f.eks. funnene opp mot dagens praksis eller relevant forskningsbasert litteratur?
- Har studien avdekket behov for ny forskning?
- Har forskerne diskutert om, og eventuelt hvordan, funnene kan overføres til andre populasjoner eller andre måter forskningen kan brukes på?

# ATTACHMENT 5

**Vedlegg 6: Master i spesialsykepleie, spesifisering av studentbidrag**

**UNIVERSITETET I STAVANGER**

Studentene som skriver sammen forplikter seg til å bidra likt. Den enkeltes bidrag skal spesifiseres, og signeres av studentene og veileder ved innlevering av masteroppgave.

STUDENT 1

Navn LENA EMELIE LARSSON

Spesialisering i: intensiv sykepleie

Bidrag: 50%

STUDENT 2 Pia Rosnes Silverstone

Navn

Spesialisering i: Intensivsykepleie

Bidrag 50%

**Signatur:**

Student 1 Student 2

Veileder:

7

# ATTACHMENT 6- TABLE 1 ARTICLE

## Theme 1- Willingness to change is dependent upon possible gains for clinical and personal improvement

| *Category* | *Sub-Category* | *Meningunits* |
|---|---|---|
| *Personal experiences are determining factors* | Perceived need for personal and team improvement | "I feel I rather do it the same way as I always have" (Nurse) |
| | | "Honestly, I personally don't see the value. But we are all different."(Nurse) |
| | | "There might be others that see a value of it but in my day to day work environment we already have a good communication among colleagues. We don't need to formalize themes and learning goals" (Nurse) |
| | Different needs in various arenas | "We could take a TALK, but that is what we have always done. We just haven't followed the TALK structure. But I agree that when something happens down in 1g you really need to debrief "(Nurse) |
| | | "The situations are definitely there, but I don't wish to work overtime, especially at 1G where it is very «messy». TALK could be useful there when you see something that you really feel needs to be improved" (Nurse) |
| | | "If an unexpected event occurs in 1G, there are more things to keep in mind, or afterwards, since it is a more unknown environment with treatments that you are not so used to." (Nurse) |
| | What is implemented must have obvious benefits to personal satisfaction | "Experienced need for debrief and support related to cases that becomes personal, when you feel that you have performed a suboptimal job with a bad outcome." (Doctor) |

| | | |
|---|---|---|
| | | "A need to get support for the decisions you made and the treatments that you have decided, to not be left feeling unease" (Doctor) |
| *User-friendliness of what is being implemented* | What is implemented must serve a purpose | "We need to see the value of it. That it serves a purpose." (Nurse) |
| | | "There are always situations where there is a need to talk to each other. And actually it should be rather natural to have a TALK" (Nurse) |
| | | "It makes it very neat and factual and helps us stay in line. What do we need to progress further and who will do it?" (Management) |
| | New interventions must be simple and easy to follow | "If you think the tool is complicated to use and too advanced, then you don't use it" (Nurse) |
| | | "More important to focus on what you need to be aware of and what needs to be taken further…I get caught up in the structure and it creates «noise in my head»"(Nurse) |
| | | "If it is complicated and the gain isn't big enough then you don't do it" (Nurse) |
| *Benefits to patient safety is determining factor* | Improving patient treatment | "There might be things that we have done for a long time and we just go on in the old patterns. And then suddenly you are in a situation where you realize that perhaps it would be better if we did it in another way instead. If you can present a clear suggestion for a change it is easier to get acknowledged" (Nurse) |
| | | "It is about the value of using it (what is being implemented)…that you see that it will be valuable right now, and that it improves treatment.. that's when you chose to use it." (Nurse) |

| | |
|---|---|
| New tools lead to reflection over current practice | "In the past debrief was more related to serious events and it didn't happen that often. With TALK you are more aware that it can be effective to perform a small debrief with just a few people" (Nurse) |
| | "We don't always succeed; we are not all the same but we can strive to be (more successful) through guidelines" (Nurse) |
| | "Of importance to include every single one that has been involved in the situation and have a direct communication to ensure that those who need to hear it gets to hear it, to be able to make a change." (Management) |
| | "It is person dependent if you take initiative to a debriefing. But my personal way to do it is that I get in contact with the person that has been in charge of the situation and goes over the situation in an informal manner. Or having a direct conversation with the person in mind. The disadvantage is that you might fail to capture others that also might have had a need for debriefing. "(Doctor) |
| Dependent on team dynamic | "The response is dependent on who you ask."(Nurse) |
| | "(barriers for debriefing) If you know the other staff well then it is easier, but let's say it is someone new then it becomes more difficult" (Nurse) |
| | "Informal debriefing with colleagues. A feeling that there exists an incredibly high threshold among doctors to take initiative to debrief out of own need. Most commonly it is the nurses who take the initiative despite the fact that the doctor might have own need for debriefing." (Doctor) |
| | "Experiences that there is a work culture in which everyone has the courage to speak up; but TALK might be a useful tool to formalize the problem for those who don't have the courage to speak up." (Doctor) |

# ATTACHMENT 7- TABLE 2 ARTICLE

## Theme 2- Follow- up and follow through- a system of implementation

| *Category* | *Sub-Category* | *Meningunits* |
|---|---|---|
| *Clear goals for intervention* | Clarity of motivation behind intervention | "Things have calmed down now so we can start focusing on the imp part, and create goals by asking for it, visualizing it, making it concrete" (Management) |
| | | " To make room in the pre implementation stage for coordination of the three different busy wards and create a common goal for the project. «And show some muscle»" (Management) |
| | Making intervention relevant for entire team | "Importance of creating a multiprofessional interest by using success factors" (Management) |
| | Specific goals and strategy for improvement | "There needs to be a system within the organization for implementat |
| | | "There is a plan to systematize and create a concrete plan to visualize key actions now." (Management) |
| *Too many interventions at the same time create conflict* | Constant changes hinder follow up | "But we will learn Meona gradually and then it will take up less space and, hopefully, then there will be more room for other things." (Nurse) |
| | | "Right now, I am afraid we are a bit overwhelmed when it |

| | | |
|---|---|---|
| | | comes to changes, due to the fact that it is a bit too much at the time." (Management)<br><br>"There are too many interventions at the same time; we can't handle it and it just gets left hanging up in the air." (Management) |
| | Timing is of the essence | "It is important to plan the right timing for introducing a new intervention. To evaluate available capacity." (Nurse)<br><br>"When implementing a new intervention, it is important to consider the right timing. But with TALK it was an external implementation goal/plan when it comes to timing." (Management) |
| | Interventions must be prioritized by need | "A leader´s responsibility includes ensuring that the staff has enough themselves updated on new things, due to the fact that the doctors have a hectic daily schedule, without enough time to spare for quality improvement. Especially for those who only are on call on the ICU." (Doctor) |
| *Leadership must be clear and motivating* | Leadership decides, we follow through / change is initiated from above | "It is the management who decides what is brought in but in the end it is the staff that decides if the implementation is succes (Nurse) |

| | |
|---|---|
| Reminders are needed | "There needs to be a follow-up; the new intervention needs to be used and the staff needs to be reminded." (Nurse)<br><br>"As a leader you can't take it for granted that the information has been read, understood and implemented. An important task of the leader is to follow up and ask for it." (Management)<br><br>"You must find the reason to ask for it. Follow-up" (Management)<br><br>"As a leader I can see that this is what we are the least good at. We assume that when we have said it, shown it, everyone has gotten it. It is of great importance for me as a leader to follow up in a ward with continuous changes, both large and small." (Management) |
| Focus over time | "But on the other hand, I haven't done a single TALK after the introduction so I am afraid it will just fade away if we don't start using it." (Nurse)<br><br>"The key for getting something new to be used is to have a strong focus over time" (Management)<br><br>"As a leader it is key to have enough time, keep focused, and follow up so the staff isn't losing interest and falling back to old habits." (Management) |

| | |
|---|---|
| Management must believe in intervention | "What has saved TALK is the fact that it is a project related to debriefing, something that we do daily and is very recognizable. I believe that everyone in the team feels that we don't debrief enough and that they don't have enough time, and now TALK gives us a simple tool that we see is valuable." (Management) |