The scrub nurse's experience of participation in the trauma team: A qualitative study

What are scrub nurses' experiences with being part of the trauma team?

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Number of words: 17986

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PREFACE

Working with this Master's thesis has been an exciting and sometimes challenging experience, but simultaneously it has been an educational and pleasant journey. The Covid-19 pandemic has certainly affected these two years as Master's students. While working with the Master's thesis we have faced several obstacles that have required us to adjust our plans quickly. We are very grateful for how we have worked together as a group and how we have found good solutions during the process.

We are deeply grateful to our supervisor, Dr Judy Munday for giving us excellent feedback on our work and encouraging us to keep on working. We would also like to extend sincere thanks to Professor Gudrun Rohde, Faculty of Health and Sport Sciences, University of Agder, for helping us with Norwegian applications and questions during the process.

We would also like to thank our family and friends for their patience and understanding while we have been busy working with our Master's thesis. We will soon return to our social lives - we promise!

We would like to thank each other - for committing to the process, keeping each other's spirits up, and for all the good laughs underway.

Lastly, we would like to thank the 13 scrub nurses that participated in our study - without them, we really would have no Master's thesis!

Abstract

Background: The scrub nurse participates in the hospital's trauma team. There is little literature that explores the scrub nurse's experiences with participation in the trauma team. Our curiosity on the subject coincided with the local hospital's operating department's wish to explore what the scrub nurses' experiences with participation in the trauma team were.

Purpose and research question: The purpose of the Master's thesis was to explore the scrub nurses' experiences with participation in the hospital's trauma team. Our research question was: *What are the scrub nurses' experiences with being part of the trauma team?*

Method: We used a qualitative design and conducted 13 semi-structured individual interviews with scrub nurses who participated in the trauma team. Interviews were audio-recorded and transcribed. We used Malterud's systematic text condensation to analyse the data.

Results: The analysis resulted in four main themes and 11 subgroups. The four main themes concerned teamwork, lack of resources, affiliation to the team and feelings of insecurity. The participants experienced that all team members knew their own responsibilities in the trauma team, and that team cooperation was effective. Participants expressed the belief that their special qualifications were necessary, although some struggled with finding their place in the team. Participants expressed a desire for more resources for trauma team training.

Conclusion: The participants experienced that they were a necessary part of the team, and overall, expressed excitement to participate in the trauma team. Some participants struggled with team affiliation, however there was an overall satisfaction with the cooperation within the trauma team. The participants wanted resources for more trauma team training to negate feelings of insecurity in the unpredictable trauma setting.

Keywords: scrub nurse, trauma team, teamwork, experiences

Sammendrag

Bakgrunn: Operasjonssykepleieren deltar i sykehusets traumeteam. Det finnes lite litteratur som utforsker operasjonssykepleierens erfaringer med å delta i traumeteamet. Vår nysgjerrighet om temaet sammenfalt med et ønske operasjonsavdelingen på lokalsykehuset hadde om å undersøke hvordan operasjonssykepleieren opplever det å være en del av traumeteamet.

Formål og problemstilling: Formålet med masteroppgaven var å undersøke operasjonssykepleierens erfaringer med å delta i sykehusets traumeteam.
Vår problemstilling var: *Hva er operasjonssykepleiers erfaring med deltagelse i traumeteamet?*

Metode: Vi brukte kvalitativ metode, og gjennomførte 13 semi-strukturerte individualintervju med operasjonssykepleiere som deltar i traumeteam. Intervjuene ble tatt opp på lydopptaker og transkribert. Vi brukte Malterud's systematisk tekstkondensering til å analysere dataene.

Resultater: Analysen resulterte i fire hovedtema og 11 subgrupper. De fire hovedtemaene omhandlet teamarbeid, mangel på ressurser, tilhørighet i teamet og følelsen av usikkerhet. Operasjonssykepleierne erfarte at alle teammedlemmene var kjent med egne oppgaver i traumeteamet, og at teamarbeidet var bra. Deltagerne uttrykte en av opplevelse av at det var behov for deres spesialkompetanse i teamet, men noen av dem strevde med å finne sin plass i teamet. Deltagerne uttrykte et ønske om ressurser til mer traumeteamtrening.

Konklusjon: Deltagerne opplevde at de var nødvendige i teamet og uttrykte generelt spenning ved å delta i teamet. Noen deltagere slet med å finne sin plass i teamet, men generelt var de fornøyde med samarbeidet i traumeteamet. Deltagerne ønsket ressurser til mer traumeteam trening for å utligne følelsen av usikkerhet i den uforutsigbare traumesituasjonen.

Nøkkelord: operasjonssykepleier, traumeteam, teamarbeid, erfaring

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1.0 INTRODUCTION

1.1 Background for selection of the topic and research question

The scrub nurse has a variety of tasks in the operating department. One of those tasks is to participate in the hospital's trauma team (Eide et al., 2019), an interprofessional team of specially qualified doctors, nurses and support personnel that receive and perform initial examination and treatment of the potentially severely injured patient (NKT-Traume, 2020b). Trauma patients need help round-the-clock every day of the year. A shorter response time to treat these patients gives a greater chance of survival, and access to qualified personnel and a surgical team is important (Gawronski, 2019). During our clinical studies in the operating department, we heard the scrub nurses talk about having various experiences with participation in the trauma team, both positive and negative. Ballangrud and Husebø (2018) points out that an ad hoc team of health professionals gathered to perform a specific task does not necessarily equate to an effective team. Several factors can influence the team functioning, such as changing team members and lack of role clarity (Ballangrud & Husebø, 2018). This sparked our curiosity about the scrub nurse in the trauma team.

The scrub nurse's special qualifications on surgical procedures, instruments and equipment makes them a valuable part of a trauma team (Eide et al., 2019). The scrub nurse has a responsibility to provide professional care to acute and critically ill patients (NSFLOS, 2015). From our clinical studies, we learned that emergency interventions like thoracotomies and tracheostomies were sometimes performed on critically ill patients in the emergency room. This helped us realise the importance of having the scrub nurse's qualifications in the trauma team.

The inclusion of the scrub nurse in the trauma team in the local hospital started as late as in 2019, and from what we have heard from our future colleagues, this was one of the last hospitals in Norway to include the scrub nurse as a part of the trauma team. To our knowledge, there has been no evaluation of this arrangement since. In the early stages of our Master's thesis, we enquired about any topics that the operating department in the local hospital needed to explore. We were happy that the scrub nurse's participation in the trauma

team was one of the suggestions, as we were already curious about this topic. We formulated our research question as:

What are the scrub nurses' experiences with being part of the trauma team?

As we wanted to explore the scrub nurse's experiences, a qualitative study design was appropriate. We conducted individual interviews, and we chose Malterud's (2017b) systematic text condensation to analyse our data. Systematic text condensation was introduced to us in our curriculum and it was described by Malterud (2017b) as a suitable method of interview analysis for new researchers.

1.2 Purpose

We have found very little published research about the scrub nurse's role in the trauma team, and we feel that there is a lack of published knowledge in this field. In addition, the operating department has explicitly expressed that this is a topic of interest. This gave us the motivation to explore the scrub nurse`s experiences and attitudes towards participation in the trauma team. We hope our research can clarify how the scrub nurses feel about being part of the trauma team, and that these findings may contribute to improved practice.

1.3 Constraints

In the background for this thesis, we will give a brief overview of treatment principles for the trauma patient, but we will describe for any treatment measures of trauma patients, either in the emergency room or in the operating department.

While working on our project, we have found that interprofessional teamwork in critical care teams comprises many aspects that we could write about in great length. Interpersonal relationships, communication, team dynamics and organisational frames are examples of factors that can affect interprofessional teamwork (Lapierre et al., 2019). However, our focus is on the scrub nurses' experiences, so we will only account for the viewpoints that are brought up by our participants. The trauma team consists of several members from different professions. We have only interviewed scrub nurses about their experiences, and consequently we cannot explore or make assumptions about how the other team members perceive the scrub nurses' role and contribution.

1.4 Clarification of terms

Scrub nurse - the Norwegian term "operasjonssykepleier" has many English translations; theatre nurse, operating room nurse, surgical nurse, scrub nurse, perioperative nurse, among others. We will use the term "scrub nurse" throughout the thesis, and we will not differentiate between roles as sterile or circulating nurse, as they are not relevant to the scrub nurse's participation in the trauma team.

Interdisciplinary team - a team with members from different professions, such as doctors, nurses, radiographers (Stubberud, 2019), who works together in an interactive effort where all members actively contribute in the team (Orvik, 2015).

Collaboration – this term refers to acting together towards a common goal, working together to perform practical tasks (Orvik, 2015; Schibevaag et al., 2018). We have used the term "collaboration" about the process where the scrub nurse works together with other members of the trauma team to complete tasks that are needed to treat the patient.

Cooperation - a mutual interest in working together, a positive attitude with mutual trust (Orvik, 2015). We have used the term "cooperation" to describe the perceived attitudes of the scrub nurses regarding what it is like to work with the other members of the team.

Trauma team - an interdisciplinary team of health care personnel that assembles in the emergency department to assess and treat the trauma patient (NKT-Traume, 2020b).

Trauma reception - we use this expression to describe the process of receiving and treating a trauma patient in the emergency room.

Scrub nurse task sheet - a procedure that specifies which tasks the scrub nurse has in the trauma team.

1.5 Structure of the thesis

In Chapter 2, we give an overview of previous research on our topic. In Chapter 3, we present background information about the trauma team, the scrub nurse, the trauma patient, teamwork and communication. In Chapter 4 we explain the methodological choices we have

made. Chapter 5 presents our findings and in Chapter 6 we discuss the findings in light of relevant literature on the field, as well as account for strengths and limitations of our study. In Chapter 7 we present our conclusion, recommendations for further research, and implications for practice.

2.0 PREVIOUS RESEARCH

2.1 Search strategies

With the help of a research librarian, we identified various search phrases and combinations of search terms. We used EBSCOhost to search the databases Cumulative Index for Nursing and Allied Health Literature (CINAHL) and MEDLINE to find literature on scrub nurses experiences with participation in trauma teams. Searches were limited to results in English or Scandinavian language, from 2010 to 2022. See Table 1 for words used in the searches, and Appendix 1 for search strategies.

Table 1. Words used in literature searches

Norwegian term:	English words for:	Potential search strategy:
Operasjonssykepleier:	Scrub nurse, surgical nurse, intraoperative nurse, theatre nurse, operating room nurse, OR nurse.	(scrub OR perioper* OR surg* OR intraoper* OR theat* OR "operating room") AND Nurs*
Erfaring:	Experience, attitude, perception, view, opinion, perspective.	experience* OR attitude* OR perception* OR view* OR opinion* OR perspective*
Traumateam:	Trauma team, trauma reception, trauma resuscitation	"trauma team*" OR "trauma recep*" OR "trauma resus*"
Deltagelse:	Participation	Participat*

We found very little previous research about the scrub nurse in the trauma team. After a manual search of the defunct database SveMed+, we found one dissertation, written by a student scrub nurse in 2006, about the scrub nurses' *function* on the trauma team (Olsen, 2006). However, since the dissertation is not about the scrub nurse's *experiences*, and it is older than 2010, it is not of relevance to our study.

In our literature searches, we did find literature concerning nurses in other specialties than surgery, for example trauma nurses and emergency room (ER) nurses. In the local hospital, the scrub nurse acts as a satellite that leaves their usual workplace and moves into the unfamiliar emergency room. As the ER nurses or trauma nurses have their primary workplace in the ER, we do not think that the results are transferable to our research question.

Although we found literature regarding interprofessional team training, communication and teamwork in general in relation to the trauma team, again these articles do not mention the scrub nurse in particular, rather the ER nurse, the trauma nurse. Despite not being entirely relevant to our research question as they do not focus on the scrub nurse, many of these articles concern topics that emerged in our findings. Therefore, quite a few articles were included in the discussion even though they were not deemed as suitable under "previous research". These were mainly qualitative studies about the various aspects of interprofessional teamwork in emergency care situations (Courtenay et al., 2013; El-Shafy et al., 2018; Härgestam et al., 2013; Kaldheim & Slettebø, 2016; Kassam et al., 2019; Khademian et al., 2013; Lapierre et al., 2019; Mace-Vadjunec et al., 2015; Nancarrow et al., 2013; Sandelin et al., 2019; Speck et al., 2012; Steinemann et al., 2016; Weller et al., 2014). We also found some articles about trauma team function (Manthous et al., 2011; McCullough et al., 2014), and interprofessional training and simulation in emergency care situations (Finstad et al., 2017; Härgestam et al., 2016; Kaldheim, Fossum, Munday, Creutzfeldt, et al., 2021; Kaldheim, Fossum, Munday, Johnsen, et al., 2021; Murphy et al., 2019; Pak & Hardasmalani, 2015).

The studies we have found that concern scrub nurses are for the most part focused on the scrub nurses' role in the team in the operating theatre. We do not think this is relevant either, as the team members in the operating theatre are familiar faces to the scrub nurses, and it is their "home territory".

3.0 BACKGROUND INFORMATION

In this chapter, we give an overview of what we have found in the literature about the trauma team, the scrub nurse and their tasks in general and in the trauma team, the trauma patient and teamwork and communication.

3.1 The trauma team

The trauma team is an interprofessional team that consists of specially qualified healthcare personnel, and the primary goal of the trauma team is to receive the trauma patient in the emergency room (ER), perform an initial assessment and if needed, provide initial treatment (NKT-Traume, 2020a). The trauma team has predetermined members (surgeon, orthopaedic surgeon, scrub nurse, ER nurse), but which individual persons that make up the team on any given day, depends who is on duty (McCullough et al., 2014). This means that the trauma team is a so-called ad hoc team, which Sollid (2018) describes as a team where the members are summoned from their daily activities. The trauma team consists of a general surgeon who often serves as a team leader, an orthopaedic surgeon, an anesthesiologist, a nurse anaesthetist, a scrub nurse, an intensive care nurse, up to three emergency department nurses, a bioengineer, a radiologist and a radiographer (OUS, 2022).

The Norwegian National Competence Service for Traumatology (NKT-Traume) was established in 2013 to build up and disseminate competence regarding the treatment of severely injured patients. The service is connected to Oslo University Hospital Ullevål, but there are regional trauma coordinators across the country, and the NKT-Traume services the entire country (NKT-Traume, 2021). There are roughly 7000 trauma team activations in Norway per year, and approximately 4500 of these are received at local hospitals, while the remaining 2500 are received at regional trauma centres (NKT-Traume, 2020a). The goal of establishing a set of national guidelines for treatment of trauma patients, was to ensure that all trauma patients receive the same treatment regardless of where they are admitted, and at what time of day (NKT-Traume, 2020a). An emergency hospital with trauma functions must be able to provide the correct initial treatment to the severely injured trauma patient, and have routines in place for transferring the patient to a regional trauma center if the patient's injuries needs resources that exceeds what is available (NKT-Traume, 2020a). NKT-Traume

has developed a national trauma plan in an effort to create uniform standards for trauma treatment throughout the country (NKT-Traume, 2020c). The Oslo University Hospital Trauma Manual (OUS, 2021) is based on the national trauma plan (NKT-Traume, 2020c) and serves as an essential document for treatment of trauma patients in Norway. Both of the hospitals in our study use the OUS Trauma Manual as a basis for their guidelines regarding trauma team personnel and treatment of trauma patients.

NKT-Traume (2020c) has developed national guidelines for criteria for activating the trauma team, see Appendix 2. These guidelines are used to varying extent by Norwegian hospitals and some use local adaptations of the criteria (NKT-Traume, 2020c). Of the two hospitals we have included in our study; the larger, regional trauma centre differentiates between large and small teams depending on the mechanism of injury. A large team summons more staff than a smaller team, and the scrub nurse is only expected to attend large teams (OUS, 2022). At the smaller, local hospital the scrub nurse attends all trauma team activations.

To be eligible to participate in the trauma team, team members must fulfil mandatory qualification requirements in addition to their basic education. For nurses and specialist nurses, a course in trauma nursing (kurs i traumesykepleie - KITS) is required (NKT-Traume, 2020a). The KITS-course will be described further later in the background information.

The decision to activate the trauma team is often made before the patient has arrived in the ER. The treatment of a trauma patient can often be time-critical, and it is of great value to the patient that the trauma team has had time to arrive in the ER and prepare before the patient arrives (NKT-Traume, 2020b). The team is summoned and assembles in the ER preferably before the trauma patient arrives. However, since the patient needs to be brought to the hospital quickly, the trauma team will sometimes receive a patient they know very little about (NKT-Traume, 2020b). The terms “over-triage” and “under-triage” are used to describe scenarios where the anticipated injuries are smaller or larger, respectively, than what turns out to be the case (NKT-Traume, 2020b). Both over- and under-triage of a patient is unfortunate, however, under-triage, where the patient’s injuries surpass what is expected, can be adverse for the patient and should not happen in more than 5% of trauma team activations (NKT-Traume, 2020b). Over-triage can be a waste of resources, but since it is of little negative consequence to the patient, over-triage is accepted in 50% of trauma team activations (NKT-Traume, 2020b).

3.2 The scrub nurse

The scrub nurse is a nurse that has completed further education that qualifies them to work as a scrub nurse (Eide et al., 2019). The scrub nurses' workplace is mainly the OR, and here the scrub nurse usually works in pairs (Eide et al., 2019). During a surgical procedure in the operating room, the scrub nurse fulfils one of two roles: in sterile gown and gloves, the scrub nurse supplies the surgical field with sterile instruments and supplies (Cuming, 2019). The circulating nurse does not don sterile attire, and supplies the scrub nurse with additional instruments that are needed and ensures proper documentation (Cuming, 2019). Perioperative nursing is a large field of work, where both the direct and indirect measures taken by the scrub nurse are focused on doing what is best for the patient (Eide et al., 2019).

According to "Operasjonssykepleierens ansvars- og funksjonsbeskrivelse" the scrub nurse is to provide professional care to acute and critically ill patients, regardless of their age or which phase of life they are in (NSFLOS, 2015). The scrub nurse shall provide professional nursing and individual care which is founded on knowledge-based practice and maintaining quality and patient safety (NSFLOS, 2015). The scrub nurse has an overall responsibility for the perioperative care in all settings where patients undergo planned or emergency surgical interventions, treatment or examinations (Eide et al., 2019). The scrub nurse shall promote health, prevent injury and disease, relieve suffering, treat and rehabilitate (NSFLOS, 2015). The scrub nurse collaborates with different occupational groups in the surgical team, and contributes to a good collaboration between and within the wards, to ensure professionally sound patient treatment (NSFLOS, 2015). However, the scrub nurse also has an independent professional responsibility in their execution of perioperative nursing (Eide et al., 2019). The scrub nurse is qualified to identify the correct instruments and equipment needed for the surgical procedure in question, and organise these so that they are ready to use (Eide et al., 2019). The scrub nurse is qualified to organise and manage a surgical procedure (Eide et al., 2019). Through their advanced knowledge of anatomy and surgical procedures, the scrub nurse can hand the surgeon the relevant instruments at the right time, and good surgical assistance is essential for the surgical outcome (Eide et al., 2019).

Because of their advanced knowledge of surgical interventions, procedures and instruments, the scrub nurse is a valuable member of the trauma team (Eide et al., 2019). They can contribute and participate in emergency procedures that need to be conducted in the ER, and also serve as a link between the ER and the operating room (OR). This way they can help

prepare the staff in the OR for the anticipated injuries of the patient and what needs to be arranged (Eide et al., 2019).

3.2.1 The KITS course

The Norwegian National Competence Service for Traumatology presents a minimum requirement for competence of the participants in the trauma team (NKT-Traume, 2020a). For the scrub nurse this implies that they need to complete a KITS course, or an equivalent course, and be skilled in emergency surgical procedures and team training (NKT-Traume, 2020d). KITS is a two-day basic course in trauma treatment introducing standardised principles for receiving and treating injured trauma patients, and the course focuses on initial treatment upon arrival at a hospital qualified to deal with trauma patients (Finstad et al., 2017).

3.2.2 Scrub nurse tasks in the trauma team

Trauma is seen as unpredictable, and this can be a challenge for the scrub nurse and for the trauma team that receives the patient. A trauma patient may need emergency surgery, and there is little preparation time for the scrub nurse and the team often has little information about the patient (Gawronski, 2019).

According to our local hospital's task sheet for scrub nurses in the trauma team (SSK, 2020) the scrub nurse who carries the trauma calling when the trauma alarm is activated, is to show up in the designated exam room in the ER, and write their name on the whiteboard in the "scrub nurse"-column. The team leader shares what information is known about the patient and the extent of the trauma, mechanism of injury and number of patients involved. The scrub nurse gives a brief report back to the operating ward about what kind of trauma is expected (SSK, 2020). The scrub nurse's place in the room is on the left side of the patient, at the foot end. After a report is given by the ambulance crew, the scrub nurse helps with moving the patient from the stretcher onto the trauma bed. On the team leader's orders, the scrub nurse helps with cutting off the patient's clothes and covering the patient with heated blankets. The scrub nurse also assists in performing the log roll (SSK, 2020). The log rolling technique is used when patients need to be moved onto their side during the initial exam. Four people are required to perform this task, rolling the patient onto their side without flexing the body in a way that could aggravate a possible fracture (Finstad et al., 2017). The scrub nurse assists in any surgical interventions that take place in the ER, such as suturing, peritoneal lavage, thoracic drainage or if an emergency thoracotomy is needed. The scrub

nurse inserts a urinary catheter with a temperature sensor when required (SSK, 2020). The scrub nurse is the link between the ER and the OR, and information about whether or not the patient needs to be moved to surgery and what surgical equipment will be required can be given by phone. Information about which operating room is prioritised to the trauma will be received during the same phone call (SSK, 2020).

The attendance of the scrub nurse in the ER during a trauma is not mandatory, and we have experienced this in our clinical studies. During the day it is often possible for the scrub nurse to leave the ward, but during evening and night shifts, there are so few scrub nurses at work, that if they are all in surgery, they can opt to not attend. Every shift records, in writing, if and how many traumas were received on that shift. They record whether the scrub nurse was able to attend or not, and in the latter case, why not (SSK, 2020).

3.3 The trauma patient

About 10% of the Norwegian population is injured annually, and 100,000 need hospital treatment as a result of serious injuries (NKT-Traume, 2020c). Every year, 2.500, mostly young and previously healthy people, die from injuries. In the population under the age of 35-40, injuries are the most common cause of death. The outcome of a serious injury depends on the quality of the treatment, and it will most often be time critical and depending on a well-prepared and competent trauma team (NKT-Traume, 2020c). Transport accidents are the most common cause of injury in Norway, followed by falls and sports and leisure accidents (Nasjonalt traumeregister, 2021).

The trauma patient is likely to have extensive injuries, often in two or more organ systems (Lennquist, 2017). These patients are received by a trauma team in the ER (Nasjonalt traumeregister, 2021). In the ER the patient will be assessed and examined and emergency measures will be performed (Næss et al., 2020b). The next course of treatment is often either surgery or intensive care treatment (Lennquist, 2017). Many trauma survivors suffer lasting disabilities and reduced quality of life (Nasjonalt traumeregister, 2021). Treating the trauma patient is a complex task, and the treatment chain starts at the scene of the accident and does not end until the patient is rehabilitated (Nasjonalt traumeregister, 2021).

The grave condition of these patients requires treatment to begin with least possible delay, and in the correct order (Sollid, 2018). The trauma patient may be physiologically normal or physiologically affected (OUS, 2022). However, the patient's condition can change rapidly (Sjöberg, 2017). A patient who is physiologically normal presents with calm respiration, a systolic blood pressure above 90 mmHg (or above 110 mmHg in the elderly patient), good peripheral perfusion and is awake and oriented. The physiologically affected trauma patient presents with reduced consciousness, affected respiration, hypotension and poor capillary filling. Treatment is based on the injuries present and the patient's condition (Næss et al., 2020b).

The initial assessment of the patient is done using the ABCDE-algorithm. This helps the team to discover life threatening conditions at an earlier stage (Aase & Hansen, 2018) and the algorithm helps the team move attention from one organ system to another, thus avoiding fixation on one issue (Sollid, 2018). The algorithm starts with a primary survey which includes assessing the patient’s airways (A), breathing (B), circulation (C), disability (D) and exposure (E) (Næss et al., 2020a). The order of the letters indicate the order in which the team should work, securing one vital function before moving on to the next (Lennquist & Larsson, 2017). After the primary survey the team will perform a secondary survey which is a complete examination of the patient (Næss et al., 2020a) and decide what is the next course of action for the patient (Lennquist & Larsson, 2017). The team gets a quick overview of the patient’s condition and all team members can concentrate on the same step in the treatment and this gives a common understanding of the situation (Sollid, 2018). Clear speech and a common understanding of the situation is important when health professionals work interprofessionally, especially in time-critical, acute situations (Aase & Hansen, 2018).

3.4 Interprofessional teamwork and communication

To ensure patient safety, good teamwork is crucial. Medical errors are often due to system flaws, rather than one individual (Collins et al., 2014). Such mistakes can be rooted in teamwork and communication and affect patient safety (Collins et al., 2014). The trauma reception is a time-sensitive setting which requires rapid decision-making (Lennquist, 2017; NKT-Traume, 2020c). High-quality communication between team members is therefore vital (Lennquist, 2017). In emergency medical situations, a large number of healthcare professionals of several specialties is needed to treat the patient (Sollid, 2018). Each individual member of the team surrounding the trauma patient has an influence on the overall

quality of the treatment (Nasjonalt traumeregister, 2021). Interprofessional teamwork can contribute to good quality in the healthcare provided to the patient. In an interprofessional team, several professionals with different roles and knowledge work together to achieve a common goal, and the team members are dependent on each other (Stubberud, 2019). When health care professionals collaborate effectively, the care and quality of the treatment increase and the patient gets the best possible care (Aase & Hansen, 2018). Patient safety is the main focus of the health services, and all healthcare personnel work for patient safety in all aspects of care. The concept of quality and patient safety is closely related. Quality in the health services is related to that the services provided must be safe and secure. The health care services provided must not lead to the patient being exposed to injury (Aase, 2018).

Working in an interprofessional team can present challenges (Stubberud, 2019).
It can be difficult to create a good team, as a problem can be that team members have different understandings of team structure and roles in the team (Aase & Hansen, 2018). In particular, ad hoc teams have been shown to be vulnerable to adverse events (Sollid, 2018). All members of the team must work together and coordinate their efforts to get the best possible result, although different roles and the participation in the team are often limited in time (Ballangrud & Husebø, 2018).

Poor communication and role confusion can hinder teamwork and lead to unwanted incidents (Courtenay et al., 2013; Aase & Hansen, 2018). Knowledge of the team member's roles and function, mutual trust and being receptive to others' experiences, are factors of importance for good team collaboration and patient safety. It is also important that the members express themselves in a clear and distinct manner (Schibevaag et al., 2018).

Safe and secure communication is an important factor in the health care system. This is especially important in trauma treatment because the time is limited (Härgestam et al., 2016). One of the most common causes of adverse events is reported to be poor team communication. Human failure causes up to 70% of adverse events, in many cases due to communication errors (Moi et al., 2019). Good communication in emergency medicine is vital (Sollid, 2018). The closed loop communication technique is a direct and clear type of communication where the receiver repeats the message given to assure the sender that it is understood, and the sender confirms that the receiver has understood the message correctly. This assures that all team members know what is happening and what needs to be done

(Sollid, 2018; Stubberud, 2019). Closed loop communication is effective to get concrete, good communication and to get an equal understanding of the situation, so that misunderstandings are avoided, this is especially important in an acute situations (Sollid, 2018).

4.0 METHODOLOGICAL CHOICES

In this chapter, we describe the method we have chosen for our thesis. We will give an overview of the semi-structured interview process that we utilised, and outline the various steps we have taken in our Master's thesis.

4.1 Qualitative research designs

In this research project, we sought to explore the scrub nurse's experiences, thoughts and attitudes towards participation in the trauma team. According to Malterud (2017b), qualitative study designs are appropriate when exploring experiences, thoughts and attitudes, as the goal is to understand, rather than explain. Qualitative research methods are not used to repeat and re-confirm existing evidence in the way that quantitative methods can be utilized for (Malterud, 2017a; Polit & Beck, 2018). Qualitative methods are better suited to develop new knowledge in the field of interest in an effort to describe, rather than make predictions as quantitative designs might be used for (Malterud, 2012a; Polit & Beck, 2018). As such, qualitative methods can be suitable when there is little available knowledge in the field of interest (Malterud, 2017b; Polit & Beck, 2018). Upon searching the literature in the early stages of this project, minimal literature was found that described the research topic. We deemed it likely that we had chosen a topic where our study can contribute to existing knowledge.

4.2 The qualitative research interview

To gather data for our study, we conducted in-depth interviews. These are one of the most commonly utilised methods of data collection in qualitative studies (Polit & Beck, 2018) and allows participants to give rich descriptions of the phenomenon of interest (DiCicco-Bloom & Crabtree, 2006). Malterud (2017b) emphasises that the interview should be conducted in an environment that is safe, and in which participants feel comfortable to allow their histories to emerge. The individual interview should provide participants a safe setting in which they can share their experiences (Malterud, 2017b). We were aware that an interview situation could bring back unpleasant memories for the participant (Malterud, 2017b). Before the interviews, we had discussed strategies in case a participant became distressed during the interview. We would allow for a pause in the interview if the participant wished for one, talk

about the situation or terminate the interview if the participant preferred that. We would also offer to help with establishing contact with the hospital's occupational health service if the participant wanted. Both Kvale and Brinkmann (2015) and Malterud (2017b) emphasise that the interview situation is a relationship with an uneven distribution of power and the interviewer may be perceived to be in the position of increased power. This could lead to the informants not being completely candid about their experiences.

We asked our informants about their experiences and attitudes towards procedures and regulations introduced by their employer, and there is the potential that such attitudes and experiences are not always positive. We wanted our participants to feel comfortable to voice their true experiences (Malterud, 2017b). We clarified to all our participants that we, as researchers, had confidentiality about statements that emerged in the interviews, and that no demographic data, opinions or statements would be able to be linked back to the individual participants. We also informed participants about how we would handle data to ensure anonymity (Malterud, 2017b).

We conducted semi-structured interviews that were centered around some predetermined, open-ended questions. This approach allows for other questions to emerge based on what is said during the interview (DiCicco-Bloom & Crabtree, 2006). This flexibility of the qualitative research methods allowed us to make on-going decisions about data needs, based on what we learned during data collection (Polit & Beck, 2018).

Before data collection, we created an interview guide based on the recommendations of Malterud (2017b) and DiCicco-Bloom and Crabtree (2006), who both describe the interview guide as an important premise for keeping the interview on track. We ensured that our interview guide was not too rigid or restrictive, to avoid limiting the answers participants might provide (DiCicco-Bloom & Crabtree, 2006; Malterud, 2017b). The interview guide should be used as a reminder of topics that researchers would like to explore with participants and five to ten questions are sufficient to start with (DiCicco-Bloom & Crabtree, 2006; Malterud, 2017b). Our interview guide had seven questions (see Appendix 3). We discussed the phrasing of the questions with each other, fellow students and our supervisor and tried to keep the questions open-ended so they would prompt rich answers from our participants. We focused on creating questions that were short and simple, and were careful to avoid leading questions (DiCicco-Bloom & Crabtree, 2006; Kvale & Brinkmann, 2015; Malterud, 2017b).

While working with the interview guide, we prepared some phrases to use as follow-up questions during the interview, such as “can you elaborate” and “can you give an example”.

We decided to collect the following demographic data about the participants:

- Gender.
- Participant age.
- Years of experience as a scrub nurse.
- Years of experience with participating in the trauma team.

4.2.1 The role as researcher – our own preconceptions

Malterud (2017b) recommends that researchers account for preconceptions, so that the reader can get a better understanding of how conclusions are reached. All three of the research team have worked as nurses for several years in different departments of our local hospital. Before the study, we had very little knowledge about the scrub nurse’s role in the trauma team and the trauma team in general. During clinical studies, we heard talk about the trauma team among the scrub nurses, and we have attended the trauma team a few times each, with our clinical supervisors. To be prepared for the interviews, we read and explored the literature about the trauma team and teamwork processes. We talked about our own preconceptions before the interview process started, and we knew that we needed to be aware of our preconceptions during the interviews, but also during data analysis (Kvale & Brinkmann, 2015; Malterud, 2017b). Our goal was to allow the scrub nurses to tell us about their experiences without fear of judgement, so we stated explicitly that there were no right or wrong answers. It has been important to us to conduct this study in a way that does not reflect discredit upon the participants in any way (Malterud, 2017b).

4.2.2 Sampling

Qualitative study designs typically include a small sample, chosen with non-probability sampling strategies (Polit & Beck, 2018). These strategies allow the researcher to choose the participants that are included in the sample. For this project, we used convenience sampling, which is the most common sampling strategy in qualitative nursing research (Polit & Beck, 2018). With this strategy, the researcher chooses informants that are conveniently available, often in the form of inviting volunteers to participate (Polit & Beck, 2018) as we did. We chose this sampling strategy because we wanted to interview scrub nurses who had work

experience that was relevant to our research question, and that would fit our inclusion criteria. Due to the limitations on time and sample size that a Master's thesis imply, it would be difficult to utilize snowball sampling, for example, where participants suggest other participants who might have suitable knowledge and experiences about a chosen topic (Polit & Beck, 2018). Our inclusion criteria for potential participants, were as follows:

- Registered nurses who had worked as a scrub nurse for at least one year and
- Had completed the KITS-course and
- Had participated in the trauma team.

We wanted a sample that was relatively homogenous in order to find data that is true for the entire population (DiCicco-Bloom & Crabtree, 2006). However, to maximize richness in data, both Malterud (2017b) and DiCicco-Bloom and Crabtree (2006) recommend striving for variation in age, gender and work experience. This also conforms with the actual composition of staff at our chosen operating wards, as there is a wide variation in age, gender and work experience. This is our reasoning for setting inclusion criteria that is quite broad.

4.2.3 Setting

We conducted interviews in two different hospitals: one local hospital in the south of Norway, and a larger hospital – the regional trauma center. The regional trauma centre has had the scrub nurse on the trauma team since the 1980's, and has four times more trauma team activations per year (Nasjonalt traumeregister, 2021). We aimed to recruit ten to twelve participants. We wanted the majority to be from the local hospital, as this is where the topic was suggested.

4.2.4 Recruitment

We asked the ward leaders at our chosen hospitals for a list of names of scrub nurses that fit the inclusion criteria. Eligible scrub nurses were invited to join the study via e-mail (Appendix 4), along with information regarding the study and a consent form, and information that the interviews would be conducted during work hours. A follow-up email was sent one week later, which allowed the intended sample size to be reached. At this point, an email was sent to all scrub nurses to inform them that we had reached our intended sample size, thanking everyone for their interest.

Sixteen scrub nurses expressed an interested in joining the study. One scrub nurse did not fill all inclusion criteria (as they had not participated in trauma teams after the scrub nurse was included on the team). One was not available for interviewing in the time period we were conducting interviews (as they were away on holiday) and one approached us after we had concluded recruitment. Finally, thirteen interviews we conducted during the first two weeks of December 2021.

While qualitative studies rely on smaller samples than quantitative study designs, data saturation can be used as a determinant of sample size. At some point, interviewing more informants will not yield any new data, and data saturation is reached. The same could happen if a few informants give very rich answers (Polit & Beck, 2018). Malterud (2017b) is clear that continuing to interview informants after data saturation is reached, is a waste of time and resources for both the informant and the researchers, and that continued interviews can produce a large and unnecessarily complex data material. After completing our interviews, we saw that for a few of the questions (for example "What factors influence whether or not you decide to appear in the emergency room when the trauma alarm is activated?"), data saturation was reached quickly as the participants gave similar replies. For other questions (for example "How do you feel about being part of the trauma team?") we got almost as many different replies as we had informants.

As our study is a Master's thesis with predetermined requirements on sample size in relation to the number of students working together, and with the strict time limitations we had, we had little room to stray from our original plan with regards to sample size and questions in the interview guide. However, we do feel that for the questions where data saturation was reached, the similarity in replies imply that these are aspects that are of great importance to the scrub nurses. This impression was amplified when we saw how differently they replied to some of the other questions.

4.2.5 Data collection

We had planned on conducting the interviews face to face with all informants on both hospitals. One of the planned trips to the regional hospital was made to conduct interviews. However, both COVID quarantine and a severe snowstorm with closed roads interfered with our original plans, and four of the scheduled interviews had to be changed. Two were conducted via telephone, one via Zoom (with audio recording only) and the last was

rescheduled to a different time. We notified NSD of the change in plans and obtained the necessary approvals, and Zoom and telephone interviews were conducted in accordance with UiA's guidelines (UiA, 2018, 2021). The leaders at both operating wards allowed us to conduct all interviews during the informant's scheduled worktimes, in an office at the operating wards.

Interviews were conducted in Norwegian by one researcher at a time. As recommended by Kvale and Brinkmann (2015), we started each interview with a briefing to inform about the purpose of the interview and to allow for questions. We also ended with a de-briefing where we again allowed for questions and clarifications. We strived for a relaxed atmosphere during the interviews and to give our participants time to express their opinions. In advance we had decided to try to "count to ten" before asking the next question. This was to give the participants time to think and possibly share additional thoughts (Kvale & Brinkmann, 2015).

After the second interview one question was added for those who had participated in the trauma team both before and after the scrub nurse was formally included on the team, to explore if they experienced any significant differences. This turned out to be only a few informants. After the third interview, we added one follow-up question (to explore further into what they feel constitutes good or bad cooperation in the trauma team), which in the rest of the interviews gave us broad and useful replies. We ended the interviews with an open invite to say whatever they had on their minds regarding participation in the trauma team, and this yielded a lot of interesting replies and various opinions.

4.2.6 Handling of the data

The interviews were recorded on audio recorders with memory cards supplied by the University of Agder (UiA). The audio files were uploaded to password-protected cloud storage supplied by UiA, and then deleted from the recorders. The recorders and memory cards were then returned to UiA (Malterud, 2017b; Polit & Beck, 2018). Transcripts were stored in password-protected cloud storage supplied by UiA, as was the list of participant names and numbers. Consent forms were scanned and stored in password-protected cloud storage supplied by UiA, while the paper originals were shredded (Malterud, 2017b; Polit & Beck, 2018). As reported to the Norwegian Center for Research Data, all transcripts and audio files will be deleted when the Master's project period is over (Malterud, 2017b; Polit & Beck, 2018; UiA, 2018).

4.3 Data analysis

During the analysis process, we worked with the Norwegian transcripts, before the results were translated into English. We are aware that this could lead to subtle changes in meaning being lost in translation. To maximize recruitment, interviews were conducted in Norwegian. All participants were offered to read through the transcripts. Two participants wished to read the transcripts, and had no comments on the contents. We took great care with translations and took our time finding the right phrasing to make sure that the essence of our findings were translated correctly.

Our data material consisted of 29 985 words. Interviews lasted an average of 16 minutes 15 seconds (range: 9 mins to 25 mins). For data analysis we used Kirsti Malterud's tool Systematic Text Condensation (STC) (Malterud, 2012b, 2017b). Malterud describes this method as suitable for beginners who have little experience with conducting and analysing research interviews and we felt that this approach was appropriate for us as beginners in conducting research. We applied a systematic approach to the four phases of STC as described by Malterud (2012b).

4.3.1 Overview of the data material

We all read through each interview to gain an overview of the whole and identified six to eleven preliminary themes that occurred in the individual interviews (Malterud, 2012b). Malterud (2012b) recommends four to eight themes.

4.3.2 Meaning units

As per Malterud's (2017b) definition of meaning units, we searched for fragments of text that contained information about the research question. These can comprise one sentence or a paragraph, or part of a sentence (Malterud, 2012b, 2017b). We discussed the preliminary themes that we had identified in phase one, and decided on five main themes (Malterud (2012b) which fits within Malterud's recommendations of identifying three to six (Malterud, 2012b). Also, as per Malterud's (2017b) guidelines, we kept a log of the decisions made concerning themes and subcategories.

Using NVivo 12 (Version 12.6.1.970) we sat together and sorted the meaning units under the five main themes we had previously identified. In this process, the contents and boundaries of the main themes were defined and clarified further. We found that some meaning units

belonged in two themes. According to Malterud (2012b) the method allows for this as long as it does not happen too often.

4.3.3 Condensation

Once data was sorted into meaning units and main themes, we saw various aspects of the main themes emerging into sub-groups. By carefully analysing the main themes one by one, we sorted the meaning units into sub-groups within each main theme. Although time-consuming, the process of discussing each meaning unit before sorting it, helped us familiarise ourselves even more with the data. As we refined the sub-groups, we discovered that some meaning units had been mis-labelled and we were able to place them in the correct sub-group. Malterud (2012b) recommends two to three sub-groups within each main theme. We ended up with three sub-groups in three of the main themes, and four sub-groups in the remaining two main themes. At this point, we felt that some sub-groups were slightly similar, but we did not see how we could define them differently.

The next part of the phase is creating the condensate, which Malterud (2012b) describes as an artificial quotation created from the contents of the meaning units in each subgroup. At this point in the process, the sub-group becomes the unit of analysis, not the individual meaning units (Malterud, 2012b). For each sub-group, we started with one meaning unit that was rich and vivid, and added text from the other meaning units around the first one. The condensate was written in first-person format in accordance with the method (Malterud, 2012b). After completing each condensate, we discussed them to make sure we all agreed that the condensate conformed with the meaning units. Some authentic illustrative quotations from the original material were chosen for use in the next phase.

4.3.4 Synthesising

In the final phase of data analysis, we used the condensates to re-contextualize the material and create an analytic text that presented our findings, in accordance with the method (Malterud, 2012b). At this point, we had developed an in-depth familiarity with the data material, and we could create a piece of text that summarised our findings within each sub-group. This text was written in third-person format as instructed by Malterud (2012b), a step taken to remind us as researchers that these are *our* interpretations, and we are responsible for them. Each condensate was discussed together

For this final phase, we created the analytic text in English rather than translating from Norwegian. We verbalised the translations, discussing phrasing and translations. By speaking out loud, hearing what we said and at times feeling like we already had discussed this, we realised that we could refine our themes and sub-groups even further. We ended up merging some sub-groups. One main theme was dissolved altogether, and it's sub-groups were found to belong under two other main themes. These were the sub-groups that we had been unsure about in phase 3. New condensates were written, and these were the starting points for the analytic text. According to Malterud (2012b) this can happen in this phase of the process, that one condensate is discovered to not be well enough anchored in the material. We translated the authentic quotations, taking great care to not alter the meaning of the quotes while turning them into something that made sense in English. See Appendix 5 for quotations in original, Norwegian format.

Finally, we created new headings for each of our four main themes. This was a laborious process, as we wanted the headlines to both reflect the contents of the themes, but also to read such that they provided an answer to our research question – to investigate the scrub nurses experiences with participation in the trauma team.

4.4. Ethical aspects

4.4.1 Applications and approvals

When conducting studies that involve humans, including a Master's thesis, all researchers must comply with rules and regulations regarding handling of sensitive data (like personal information about the participants) and ethical aspects of the study (Malterud, 2017b; NSD, 2021a; Polit & Beck, 2018; UiA, 2018). We were required to apply for approval from several authorities before we could start recruitment and data collection.

Approval from The Norwegian Centre for Research Data (NSD) was received in October 2021 (Appendix 6) and in December 2021 for updated data collection (Appendix 7). Approval from UiA's Research Ethics Committee (FEK) was received in November 2021 (Appendix 8). Approvals from the Personvernombud in both hospitals was received in December 2021) (Appendices 9 and 10).

4.4.2 Information and consent

We developed an information sheet for potential participants and consent form based on a template from NSD (Appendix 11). Approval of these documents were obtained from the relevant ethical committees. The participant information sheet was distributed to all potential participants along with the invitation to participate, and we received written consent from the participants at the start of the interview. All participants were informed that up until data analysis was completed and data was de-identified, they could withdraw from the study without penalty (NSD, 2021b). All participants were given the opportunity to ask questions before consenting to joining the study, and before and after the interview.

4.4.3 Encryption and anonymity

Before the recruitment process, we considered the ethical considerations regarding sampling and confidentiality (Malterud, 2017b). Confidentiality and anonymity of participants is protected as the identities of our participants are not described. Whether or not the participants themselves choose to disclose to their colleagues that they are participating in our study, is out of our control. We arranged with the ward leader that the interviews could be conducted during the participant's work hours, in order to reduce the burden of time on potential participants. This necessarily led to the ward leader needing to know which scrub nurses he had to arrange a replacement for when they had to leave the operating room to be interviewed by us. We could not find any way to avoid this. To ensure anonymity while we were working with the data, all participants were assigned a number which we used instead of their names (Malterud, 2017b). This number is also used in the quotes used in the final edition of the Master's thesis.

4.5 Methodological considerations

Describing the steps and choices made during the process, will facilitate others being able to replicate our study, thus preserving intersubjectivity (Malterud, 2017b). A significant part of a research project is to conduct the study in such a way that we can trust the findings (Malterud, 2017b; Polit & Beck, 2018). The terms "validity" and "reliability" are often used when talking about quality related to the conduct of research. These terms are often associated with quantitative research, and many qualitative researchers are opposed to using these terms for assessing the quality of qualitative research (Malterud, 2017b; Polit & Beck,

2018). The debate has lasted for many years and there is still not any agreement on which terms are suitable to use when assessing the quality of qualitative research (Malterud, 2017b; Polit & Beck, 2018). Both Malterud (2017b) and Polit and Beck (2018) shows to Lincoln & Guba's framework of the "golden standard" for qualitative research pointing to four criteria for developing the *trustworthiness* of a qualitative study. The criteria are dependability, transferability, confirmability and credibility. The four criteria represent parallels to reliability, external validity, objectivity, and internal validity, respectively (Polit & Beck, 2018). Lincoln & Guba later added a fifth quality criterion – authenticity (Polit & Beck, 2018). We choose to discuss strengths and limitations of our thesis in light of dependability, transferability, confirmability, credibility and authenticity. As pointed out by Polit and Beck (2018), the various measures taken to ensure quality in one of these criteria, could also affect multiple criteria simultaneously.

4.5.1 Credibility (internal validity)

Credibility deals with the truth of the data, their interpretation, and the achievement of true results (Malterud, 2017b; Polit & Beck, 2018). Malterud (2017b) points out the importance of using the correct research method to find a valid answer to our research question. As we wanted to explore experiences and attitudes, we chose a qualitative design, and conducted interviews to gather data for our study (Malterud, 2017b; Polit & Beck, 2018). We used a well-described method to analyse our data (Systematic Text Condensation) and we were careful to follow the method step by step. We spent a lot of time working together, to make sure that we agreed on transcriptions, data analysis, findings and discussion (see Appendix 12). This is called investigator triangulation, and this measure is taken to reduce the possibility of biased decisions (Polit & Beck, 2018). Part of the STC method is to ensure that our analytic text actually conforms with the original material (Malterud, 2012b). To validate the contents of our analytic text, we read through all the meaning units in each sub-group to make sure that all the variations were included. Where two or three participants "disagreed" with the rest, this was included. Deviating opinions from only one person were not included if they did not conform with the main themes we had identified and did not bring anything relevant to the research question (Malterud, 2017b). We also noted where there were distinct differences between the larger hospital and the smaller hospital. This search for disconfirming evidence and competing explanations is according to Polit and Beck (2018) and Malterud (2017b) recommendations. Before we started the project, we did have some preconceptions about the topic. This could also affect our data collection and findings. All

this is called bias, which is impossible to avoid entirely (Malterud, 2017b). Although we did not keep a reflexive journal through the research process, we aimed to be very conscious of our preconceptions and reminded ourselves throughout the whole process to try and put these aside (Malterud, 2017b; Polit & Beck, 2018).

4.5.2 Transferability (external validity)

Transferability concerns whether the findings can be transferred to other groups and settings than the one under investigation (Malterud, 2017b; Polit & Beck, 2018). We created our inclusion criteria with an aim to recruit a sample that reflects the variations of the entire population of scrub nurses, in terms of gender, work experience and age. We believe that conducting the study at two different hospitals, one of which had the scrub nurse on the team for a significantly longer period of time, this contributes to the generalisability of our findings. While our chosen sampling strategy is effective, it may not give us the participants with the most valuable information, for example someone who for some reason participates in the trauma team more often than others. We can also not be sure that the sample is representative of the population (Polit & Beck, 2018). However, with the time limitations of our project, we decided this was the best way to approach sampling.

4.5.3 Dependability (reliability)

Dependability is necessary for achieving credibility (Polit & Beck, 2018). Dependability points to the consistency and accuracy of the information obtained in our study – whether the findings would be the same if the study was conducted by a different set of researchers in a similar context (Polit & Beck, 2018). We used an interview guide so that that we all asked the same questions, to ensure consistency in the data we collected (Polit & Beck, 2018). By creating open ended questions, discussing the phrasing within the group, with our supervisor and with fellow students, as well as piloting on each other and fellow students, we wanted to ensure that the questions were suitable to get an answer to our research question (Polit & Beck, 2018). By creating an interview guide, dependability is increased by allowing other researchers to replicate our study with the same questions (Polit & Beck, 2018). While transcribing the interviews, the researcher who conducted the interview transcribed it, the other two researchers read through the transcription while listening to the audio file. This was to make sure the transcript was correct, and to ensure investigator triangulation (Polit & Beck, 2018).

Kvale and Brinkmann (2015) points out that there is a risk that the participant's replies could vary according to who the interviewer is. We are aware that there is a possibility that the replies could be different if it were not us asking the questions, but for example the head of department. It is possible that other main themes would emerge and could impact on the conclusions that were made. This is not a factor that can be controlled for, only recognised.

Our findings and interpretations have not been shown to our participants for them to comment or give feedback on. This can be a weakness, according to Malterud (2017b) and Polit and Beck (2018), because we miss out on the opportunity to get corrections to our interpretations, or for the participants to add additional information or reflections. With the time limitations of our project, this has not been possible. However, we offered all participants the opportunity to read through the transcripts. Two participants accepted the offer but did not give us any feedback on the transcript. During the interviews, we made sure to clear up statements we were unsure about by asking the participants "Have I understood it correctly when you say that….?". This strategy is called "member check" (Polit & Beck, 2018), and is recommended by Polit and Beck (2018) and Malterud (2017b) to ensure dependability (reliability) to the final results.

4.5.4 Confirmability (objectivity)

Confirmability focuses on whether the data actually represents the information the participants gave, and that the interpretations of the data are justified and reasonable and not something we as researchers has imagined (Polit & Beck, 2018). Again, we strived to achieve confirmability by working together and discussing our findings thoroughly. During the work with the interview guide and especially during data analysis, we kept a project log over decisions and changes we have made underway. This audit trail made it possible for us to go back and review our decisions, and this is a measure that can enhance the study's confirmability (Polit & Beck, 2018). We repeatedly returned to the raw data to ensure that our interpretations of the data conform with what the participants said (Malterud, 2012b, 2017b; Polit & Beck, 2018). We were particularly careful not to assign opinions to the participants that they did not explicitly state themselves (Polit & Beck, 2018).

4.5.5 Authenticity

To ensure authenticity in a study, we as researchers must show the range of different realities as they are told by our participants (Polit & Beck, 2018). One measure that can be taken to

ensure authenticity is to give the reader a vivid and thorough description of the research context and the participants (Polit & Beck, 2018). Although we cannot bring the reader directly into the interview situations, we have attempted to show our finding in the most authentic way. After the interviews were completed, we transcribed them from audio files to text documents, being careful to transcribe verbatim as recommended by Malterud (2017b), DiCicco-Bloom and Crabtree (2006) and Polit and Beck (2018). DiCicco-Bloom and Crabtree (2006), Kvale and Brinkmann (2015) and Malterud (2017b) all recommend transcribing the interviews shortly after they are conducted (as opposed to postponing transcription until all interviews are completed), while the interview situation is still fresh in our memories. We found the transcribing to be a time-consuming task, but we felt that we became more familiar with the material in the process, which aided us in the analysis process. Another measure to give the study authenticity, is the inclusion of verbatim quotes (Polit & Beck, 2018), and we have done this in the form of authentic illustrative quotes in our findings chapter.

5.0 RESULTS

In this chapter, we present the findings from our study. A summary of the four main themes and 11 subgroups that were identified, are presented in Table 2, and demographic data about our participants are presented in Table 3.

Table 2. Main themes and subgroups

Main theme	Subgroups
Everybody knows their roles and responsibilities, and the team works well together.	• Roles and task distribution, taking responsibility for one's role • Communication and leadership • Cooperation and collaboration in the team
I know that my special qualifications are needed, but I have not quite found my place in the team yet.	• A sense of belonging in the team • Our special skills are not always needed in the team, wanting the profession to be more visible
At the end of the day, it is about the resources.	• Lack of personnel • Poor utilisation of personnel and skills • Wanting more resources for training and courses
Experience and training are important in order to do a good job in the trauma team.	• Being prepared makes me feel comfortable • Working in unknown surroundings • Practice and training make me feel more safe in the setting

Table 3. Demographic data

Population: n = 13
Women: 8 Men: 5
Participant age
Average age: 47 (Range 31 – 64)
Work experience as scrub nurse
Average years: 15 (Range 2 – 35)

Participants had participated in the formal trauma team for a period of between two to 16 years. However, some participants had attended trauma calls prior to the scrub nurse being formally included in the team at their hospital - four participants stated that they had participated over a period of four and a half to eight years prior to the commencement of the formal trauma team.

5.1 "Everybody knows their roles and responsibilities, and the team works well together"

When asked directly about it, all the participants could describe what the scrub nurses' tasks in the trauma team were, according to the task sheet. They were also familiar with the roles and responsibilities of the other team members, and several participants expressed that this system led to a good work flow in the trauma setting.

"We have, everyone in the trauma team has their roles yes... and we are, we know exactly what we are supposed to do, where you are supposed to stand, what your task is, and what you may have to do." (Participant no. 1)

All of the participants said they were rarely given other tasks, and when asked if they had thought about other tasks that the scrub nurse could perform in the team, they all expressed that they had not. A few participants said they thought the task distribution in the team was

suitable according to the skills of the various team members. They thought it would be unnatural for the scrub nurse to take over a task from someone who had better training in it, for example inserting peripheral venous catheters, which is the task of the nurse anesthesist. Even so, the majority of the participants told us that they would help the other team members when needed, for example by counting respiratory rate which is not a scrub nurse task.

Several of the participants said it was important to be aware of one's responsibilities in the team, in terms of both daring to claim their position in the team, and to make sure their tasks are fulfilled. Some of them also mentioned their own responsibilities in keeping themselves up to date with trauma-related procedures.

"It is a bit dependent on ourselves, that we do not, in a way, define ourselves away from the patient and from the trauma table, but that we are in, that we, somehow, take our place down there." (Participant no. 2)

When asked about what constituted good cooperation in the trauma team, all participants emphasised communication as a key factor, and closed-loop communication was highlighted by approximately half of the participants. Most of the participants said it was important to be clear and to the point in both verbal and non-verbal communication, and that it was equally important to not be offended by the direct communication style in the trauma setting. A few participants also talked about the importance of keeping a calm atmosphere inside the trauma room, and adjusting speech volume to the situation so that information given can be heard by everyone. Two expressions that came up were to "avoid screaming and shouting" and "not working with your mouth but with your hands, and keeping your ears open".

"Good cooperation in the trauma team is that, communication is very important, it should be "closed loop" communication, so it is certain that everything is received, and confirmed, and performed." (Participant no. 1)

Some participants emphasised the trauma team leader's qualities as essential for a well-functioning teamwork. Important qualities were confidence, taking control of the situation, knowledge about how to treat trauma patients and using closed-loop communication. One participant mentioned that having an inexperienced doctor lead the team could give that participant a feeling of unease.

"...and the team leader is essential, you have clear and explicit messages that come from him, he has a good knowledge of closed loop communication, which ensures that everyone is informed about what they find, and what... how the condition is... so communication is essential." (Participant no. 2)

The majority of participants said it was exciting, interesting and educational to be part of the trauma team. "Exciting" was the word that was most often used. Having a role in a high-functioning team, helping to save (severely) injured patients, was regarded as being very rewarding. A minority of the respondents said they liked "the action" of a trauma reception and described it as a personality trait they held.

All the participants stated that they thought the collaboration in the trauma team was good. Most of the participants said that they regularly helped other team members with their tasks when needed, and the ER nurse in particular was someone they often collaborated with. The fact that the ER nurse was more familiar in the trauma room was considered by the scrub nurses to be favourable and facilitated a good collaboration towards a common goal.

"We are one team, and the job must be done. That's how I think." (Participant no. 8)

Some of the participants brought up the importance of treating each other with mutual respect. Talking to each other in a friendly and decent manner was something they considered to be vital for a good experience in the hectic trauma situation. One participant talked about how it was fundamental to acknowledge the significance of other team member's tasks in the trauma setting, and not just one's own. The main priority was to give the patient the best possible care.

"It is important that you have an approachable demeanour that makes you try to bring out everyone's qualities... right... in the team... to get the best possible result. It is exactly the same as up here with us, that teamwork is really the main ingredient to get a good result, to be a good team worker by having respect for each other, have a nice demeanour and help each other." (Participant no. 13)

While most participants wanted to contribute as much as they could, a few of the others said they actively did not take on any other tasks, so that they could be dismissed earlier.

5.2 "I know that my special qualifications are needed, but I have not quite found my place in the team yet"

Most of the participants from the smaller, local hospital said they felt like a valuable part of the team. One participant said they perceived that they were both seen and needed in the team. Factors that gave a feeling of belonging, was first and foremost the formal inclusion of the scrub nurse in the trauma team. Having been given specific tasks to fulfil and an expectation by other team members that the scrub nurse would attend, also contributed to a feeling of team affiliation. Concrete measures that also gave a sense of belonging, was finding the vest marked "scrub nurse" among the other vests, writing one's name on the board in a separate "scrub nurse column", and knowing there is a defined place around the trauma table for the scrub nurse.

"And we see that, when we come down, the equipment for us is right there along with the equipment for all the others." (Participant no. 4)

«...and we have been well received when we came down before we were a defined part of the team, but now, now we are part of the team, so now it is in a way completely natural that we show up." (Participant no. 4)

A few of the participants from the smaller, local hospital, said that they did not feel like a natural part of the trauma team. Most of our participants from the smaller hospital said that the ER nurse occasionally performed tasks that were in the scrub nurse's task sheet, for example inserting a urinary catheter. Some of the participants said that when this happened, they felt they were in the way and redundant in the trauma reception. One participant said that they did not believe the rest of the trauma team thought the scrub nurse did an important job in the team, and because of this, the participant felt like they did not belong in the team.

"So... you are a guest, and that feeling of discomfort, it sits there." (Participant no. 8)

"And basically, you do not want to leave here, if you are needed up here, then it is in a way here you feel the greatest belonging then, because you know that there are very many others down there too who can do the task that we do down there." (Participant no. 13)

Lack of team affiliation was not brought up at all by the participants from the larger regional hospital. Some of the participants from the smaller hospital, both those who said they felt welcome on the team and those who did not, stated explicitly that they felt more affiliation to the operating ward than the trauma room.

Practically all of the participants said that their special qualifications were not always utilised in every trauma reception. However, since they never knew for certain what would come through the doors, they said it was important that they were there in case their qualifications were needed. A lot of the participants mentioned emergency procedures like chest tubes, thoracotomies and tracheostomies.

"I think it is important that the scrub nurse is part of this type of team, because our role is so crucial if the patient needs surgery, and then it is best for everyone, both for us as a group, and for the patient and the further treatment... that we have been involved from the very beginning." (Participant no. 7)

Some of the participants focused on how it was beneficial for the patient that the scrub nurse was present on the team, as the scrub nurse has special expertise regarding surgery and hygiene. There was an overall agreement that the scrub nurse's profession (in general) and role in the team (in particular) needed to be made more visible.

"I think it is important for visibility... for scrub nursing, that we are part of the trauma team... but, I think it is natural that we are there... And... I think we just need to be even more visible... We are hidden upstairs in the operating department." (Participant no. 3)

5.3 "At the end of the day, it is about the resources"

All the participants said that they made it a priority to try and attend the trauma team when the alarm is activated. On the occasions that they could not attend, this was due to ongoing activity in the operating ward that required all the personnel on duty. The majority of the

participants said it was easier to leave the operating room to attend trauma teams during a dayshift than during an evening or night shift. This had to do with the number of scrub nurses on duty on the different shifts. At the larger, regional hospital, the participants always attended trauma teams, also during evening and night shifts. Due to how the department at the larger hospital is organised, the scrub nurses on night shift have more colleagues available to help if one scrub nurse has to leave the ward. At the smaller hospital with only two scrub nurses on duty on the night shift, there was a larger variation in the replies regarding attendance during night shifts. Some made a priority to go, others did not.

Several of the participants from the smaller hospital said that the task of attending the trauma team was assigned to them without any additional resources being given (i.e., extra staff on duty). This led to them continuously having to prioritise where they were most needed when the trauma alarm was activated. All the participants pointed to the lack of personnel as the main reason for not being able to attend the trauma team, for example two ongoing surgeries in the operating department when the trauma alarm was activated. In some cases, attending the trauma team would lead to the scrub nurse being forced to break operating department procedures for how many scrub nurses need to attend certain surgeries.

"But it comes down to resources, we have not been given any extra resources, so it is in a way time that has been taken from being up here, so that is what it is mostly about… I would like to be a part of it, but I see that it falls at the expense of some of the tasks here." (Participant no. 13)

The emergency room is one floor down from the operating department in both hospitals, and the scrub nurses brought up feeling very uncomfortable about being too far away from the operating department if a situation there required their presence. Not being available at the operating department for an acute caesarean section (especially on an evening or night shift) was brought up by several participants as a worst-case scenario.

"I sometimes feel that responsibility I have up here, so I'm a bit far away from the department." (Participant no. 3)

A few participants focused on additional aspects of the lack of resources. When the scrub nurse has to leave the operating department on an evening or night shift to attend the trauma team, this could lead to a complete halt in the operating program, pending information about what kind of trauma is expected. Also, if the trauma patient is severely injured and in need of emergency surgery, the scrub nurse participating in the trauma team would be more needed in the operating department, helping to prepare the operating room.

When the participants talked about the ER nurse often having completed the tasks of the scrub nurse in the trauma team, this was assumed to be because the two roles share a lot of the same tasks in the task sheet. This led to the scrub nurses sometimes feeling useless when they had nothing to contribute to the trauma setting.

"I find it sometimes quite exciting, sometimes really unnecessary, and then I sometimes experience that, that I am a little in the way really, when I am down there." (Participant no. 11)

The majority of the participants state that they believe the scrub nurse's special qualifications are needed in the trauma team, but that it is often under-utilised. One participant illustrated this with the example of having to leave the operating department, either cancelling or postponing surgeries and only being asked to cut clothes when the trauma patient arrived.

Several of the participants mentioned a desire to be dismissed from the team earlier when it became clear that the patient would not become a surgical case.

"I think there are many others who can insert a urinary catheter, and it is often so late in the process, that we might have been released from the team and rather be up here." (Participant no. 13)

Most of the scrub nurses said they wanted more opportunities to practice treating trauma patients and becoming familiar with the trauma room in the ER. Lack of this type of training was related to lack of finances and poor staffing. Some of the scrub nurses from the smaller, local hospital said that they knew they were welcome to go downstairs and have a look around, but this was difficult to find time for during work hours. It was suggested that the operating ward's teaching hours could be utilised for this.

“There is very limited training on getting to know the trauma room. It is very rare that we have time to go down there and look around.” (Participant no. 12)

The participants all said that trauma training and repetitions were important, and they wished that this was made into a better system. They were aware of the regular trauma simulations carried out in the ER, but only a few scrub nurses get to attend every time, so our participants had rarely participated in these simulations. Several participants from both hospitals mentioned wanting the opportunity to attend trauma-related seminars and courses.

"Every fourth Friday there is a trauma exercise, where they send down one to two from our department, so it is, it has been a long time since I have been there, but I went …yes, quite a long time ago, it is fun.” (Participant no. 10)

The participants from the larger, regional hospital specified that they spent a lot of time training new staff and preparing them for participation in the trauma team. They would have the trauma alarm for an entire week, and training also included familiarising yourself with the trauma room.

5.4 “Experience and training is important in order to do a good job in the trauma team”

Most of the participants from the smaller hospital said that knowing what their tasks were, and what others’ tasks were, gave them a feeling of safety in the often unpredictable trauma setting. They said they felt comfortable with their pre-assigned tasks, but if they had to do anything beyond these, it would make them feel insecure. Some of the participants from the smaller hospital who had more experience with participation in the trauma team, did not talk about this. Neither did the participants from the larger hospital.

"I am confident in what I will do there and then, but if there are any situations where one has to do something more than the usual role, or the tasks, then I will probably feel a little... insecure." (Participant no. 3)

Most of the participants across both hospitals stated that the uncertain and potentially unstable condition of the trauma patient could make them feel insecure. Being present throughout the entire course of the trauma reception was brought up as vital for obtaining a good overview of the situation.

"It's always an advantage to be present from the start of a team, instead of arriving in the middle. You kind of get a story and get an impression of what has happened, and it's easier to somehow think ahead in time… what... what do you need and what to do, what… plan a little ahead, it is much easier if you are part of a trauma team from the beginning, than to just get an injured person who is going to have surgery." (Participant no. 2)

All the participants said that the possibility to inform the colleagues in the operating department about what is coming, was one of the most important elements of their participation on the team. Even five minutes extra preparation time for the scrub nurses in the operating room was considered very valuable. This gave a sense of safety and was said to be potentially life-saving for the patient.

"For example, this acute aortic aneurysm that comes in, right, then the team up here can be ready with the instruments and ready gowned so that when the patient comes - right over to the operating table, we can disinfect the skin while the anesthetists is also preparing for anesthesia, the vascular surgeons drive like crazy from home and are here about the same time so we can almost start operating just a few minutes after they have come in. It can be... it can be vital for the patient." (Participant no. 4)

Most of the participants from the smaller hospital said that the trauma room was an unfamiliar work environment, and that this could make them feel insecure. Two expressions that were used were "being in someone else's arena" and "not on our own territory". They would sometimes struggle to find the correct instruments or equipment, which they said made them feel insecure, especially when the situation was severe. Other aspects of this were not enough equipment or instruments, or the wrong kind, or that it was packaged and sterilised improperly. They had also experienced a complete lack of necessary equipment in some situations.

“It's like going into the neighbor’s house and having to find the things you need.” (Participant no. 8)

"Here we know where everything is, we have our instrument kits, down there there are completely different kits of... of equipment... which... sort of... the ER owns." (Participant no. 12)

None of the above was mentioned by the participants in the larger hospital. Again, some of the participants from the smaller hospital who had more experience with participation in the trauma team did not bring this up as a problem.

Some of the participants in both hospitals pointed out that as scrub nurses they were used to working in pairs, but in the trauma reception they were often the only scrub nurse, and this made them feel alone. Pairing up with the ER nurse (or a second scrub nurse if possible) made them feel more comfortable and secure. Seeing familiar faces among the other team members, for example the surgeon or nurse anesthetist that they work alongside within the operating department, gave them a feeling of security.

"The thing is that we are used to being two... two of us... right... We are very used to having another scrub nurse to rely on, while down there one is alone... In case it gets serious... but then you try to find a colleague... and I have been in that situation quite a few times... that there have been bigger things... and then we are two down there, if possible... So it's very good to have someone to rely on.” (Participant no. 13)

All participants said, in different ways, that having as much experience as possible with trauma patients was beneficial. Several of the participants from the smaller hospital said that they got to participate in the trauma team so rarely that they never really got the hang of it, and this made them feel insecure. One participant said it had been approximately six months since they last had attended the trauma team, and this was regarded to be disadvantageous. A majority expressed a desire for more practice, both by attending real trauma receptions and by being allowed to participate in courses and simulations. They said this would contribute to improved skills and make them feel more secure and confident in their role in the trauma team. In addition, simulations and courses were described as “fun”, “educational” and “motivational”.

"That is... it does not appear overnight... and... you must have been involved in a lot of different things and you must be well acquainted with the rooms and the equipment... know what it is used for, have been on courses... simulations... and practiced so that... You have gone through both mentally and physically... in a way... handled things. And knowing where things are... then you are... safer." (Participant no. 7)

6.0 DISCUSSION

The purpose of our study was to explore the scrub nurses' experiences with participation in the trauma team. Our overall findings were that generally, the scrub nurses thought it was exciting to participate in the trauma team, and that regular participation positively affected how the scrub nurses experienced participation in the trauma team. Conversely, infrequent participation seems to be a barrier to the scrub nurses' sense of belonging in the team. Lack of resources, in the form of personnel and funds for training, negatively influences the scrub nurses' experiences with participation in the trauma team. In this chapter, we will discuss our findings in light of previous research and relevant literature.

6.1 "Everybody knows their roles and responsibilities, and the team works well together"

The trauma team is an ad hoc team, composed of members from various disciplines, who have varying skills and training (Steinemann et al., 2016). Finstad et al. (2017) points to the team members' ability to perform their duties in a flexible manner, among other things, as a requirement for teamwork competence. During a trauma reception, many parallel actions take place simultaneously. This highlights the necessity of every person in the trauma team carrying out their specific duties adequately. Another contributing factor to a functional teamwork is the team members knowledge about their own duties and the duties of the other team members (Finstad et al., 2017; Speck et al., 2012).

The scrub nurses in our study expressed satisfaction with having a set of procedures that specified what their tasks were, and what the tasks of the other team members were. This, they said, was fundamental for a good workflow in the trauma team – that everyone knew what they were supposed to do. This is supported by Khademian et al. (2013) and Lapierre et al. (2019) who both explored factors that could affect interprofessional teamwork in emergency care teams in the ER. For a team to function well, it is important that the team member's roles are well defined so that everyone knows what their responsibilities are. When team members' roles are clearly defined and complement each other, this could enable maximum use of the team's capabilities (Khademian et al., 2013). In our study we found that the participants experienced that knowing their role and the role of other team members

positively affected teamwork, and this is in line with what Khademian et al. (2013) and Lapierre et al. (2019) found in their studies. However, some of our participants from the smaller hospital said that the tasks of the scrub nurse and those of the ER nurse overlapped. This led to the ER nurse sometimes performing the tasks the scrub nurse had intended to perform, and possibly leading to confusion (for example who would insert the urinary catheter). This could indicate that the task distribution might not be optimal, compared to the findings of Khademian et al. (2013) and Lapierre et al. (2019).

Because the trauma team is an ad hoc team (McCullough et al., 2014) we assume that the team member does not always know all the other team members. Courtenay et al. (2013) points to the fact that even if you do not know the other members in the team, the team can still be effective if everyone knows what tasks are designated to the various roles. This may allow them to predict what other team members might need, and this gives the team a high degree of adaptive capacity (Courtenay et al., 2013). Some of our study participants said they would actively help other team members with fulfilling tasks when they saw that other team members needed assistance, thus contributing to an effective trauma reception.
Some of our participants said that it could take months between each time they got to participate in a trauma team, and they thought this was unfavourable. With the trauma team being an ad hoc team, its performance is sensitive to factors like high turnover of personnel and short-term involvement of team members (Courtenay et al., 2013). In a quantitative study, Mace-Vadjunec et al. (2015) examined whether employees who worked less often with trauma patients felt less involved, and found that participants who worked in the trauma team on a regular basis, reported being more familiar with the roles of other members, than those who did not work in the trauma team on a regular basis. We believe that this points towards the necessity of having a set of procedures that specify the various team members' tasks, and our study participants confirm that these procedures facilitate both teamwork and individual performance in the trauma team. If the members of the team are familiar with procedures and protocols and have good interdisciplinary teamwork, the team as a whole will be able to perform more efficiently and achieve better results (Sandelin et al., 2019). Even if some of the scrub nurses in our study rarely got to participate in the trauma team, they still said that they were familiar with their own tasks and the tasks of the other team members. We think that this could be related to the fact that there are clear procedures in place.

Another benefit of having a clear task distribution in the trauma team, is that it can translate into more effective communication, according to Manthous et al. (2011). When team members know who to convey various information to, and who to direct a question to, the information can be brought effectively to the team member who needs it (Manthous et al., 2011). We asked our study participants an open-ended question about what constitutes good cooperation. The majority brought up communication as a significant factor to ensure that all team members knew what was going on and what needed to be done. An abundance of literature emphasises communication as a key factor in effective teamwork (Courtenay et al., 2013; Lapierre et al., 2019; Mace-Vadjunec et al., 2015; Weller et al., 2014). The literature also points out that poor communication in the trauma team can lead to adverse events such as missed or delayed care, misinterpretations and negative health outcomes for the patient (Courtenay et al., 2013; El-Shafy et al., 2018; Murphy et al., 2019; Pak & Hardasmalani, 2015).

With a seriously injured patient, it is of vital importance that tasks are completed accurately and expeditiously (El-Shafy et al., 2018). According to Eide et al. (2017), professional communication must be well-founded and helpful to the recipient. Active presence and clear communication are essential to identify dangers, make the right choices and provide the right treatment. Weller et al. (2014) points out that various professions (for example doctors and nurses) organise their information differently and have different priorities regarding what is important information about the patient. In a qualitative study on how multidisciplinary trauma team training affects team performance, Murphy et al. (2019) found that their participants stressed the importance of possessing and using communication techniques in the emergency context, and the importance of closed loop communication was highlighted. The National Trauma Manual (OUS, 2022) specifies that closed loop communication must be used in the trauma reception.

Half of our participants highlighted closed loop communication as essential for effective teamwork, and that it was important to keep communication clear and concise. Although Härgestam et al. (2013) acknowledge the benefits of using closed loop communication, they also found that the technique is not always used in the clinical setting. They relate the use of closed loop communication to the individual team member's level of education and amount of trauma team training. Whilst we did not ask participants to specify if they used closed loop communication every time they attended the trauma team, we cannot say that the technique is

used every time. Some participants expressed that the closed loop communication technique is very direct and stressed that it was important not to be offended by this. Our findings indicate that the participants are aware of the importance of the technique for teamwork in this context as they specifically identified the technique. As mentioned, the National Trauma Manual (OUS, 2022) stipulates that closed loop communication must be used.
Some of our participants also emphasised the importance of treating each other with respect and talking to each other in a proper manner, even if the situation is hectic and closed loop communication is used. Several authors underline the importance of respect as a key factor for good teamwork. Nancarrow et al. (2013) identified ten principles for good interdisciplinary teamwork, and among these, respect and trust are important factors, as is respecting and understanding other team members' roles and how they also have an impact on patient outcomes (Nancarrow et al., 2013). In a qualitative study, Kassam et al. (2019) explored factors that make up a good trauma team. Kaldheim and Slettebø (2016) investigated the role of respect as a teamwork process in the operating room through qualitative interviews with Norwegian scrub nurses. Both Kaldheim and Slettebø (2016) and Kassam et al. (2019) emphasise respect for other team members, as did Lapierre et al. (2019) who found that respect and trust in interpersonal relationships also had an impact on team dynamics and job satisfaction. Conversely, Khademian et al. (2013) found that lack of respect and empathy hindered teamwork. Schibevaag et al. (2018) found that equal value among team members and mutual respect were conditions for effective cooperation in interprofessional teams. Our findings are in line with this, as participants expressed a belief that it was fundamental to acknowledge that other team members also were important for providing the patient with the best possible care.

6.2 "I know that my special qualifications are needed, but I have not quite found my place in the team yet"

When exploring the subject of feeling a sense of belonging in the trauma team, we found significant differences in responses between participants from the larger hospital and smaller hospitals. The participants from the smaller hospital appeared to focus more on team affiliation. Some felt a greater affiliation than others, but they all brought up this topic in one form or another, indicating to us that team affiliation was a central part of their experiences with participation in the trauma team. The fact that this was not brought up by participants from the larger hospital, may perhaps be related to the fact that this hospital has had the scrub

nurse on the team for a significantly longer time. It could be interesting to repeat the study in the smaller hospital in the future, when the scrub nurse has been on the trauma team for a longer duration of time, to see if there are any changes to participants' feeling of team affiliation. Mace-Vadjunec et al. (2015) found in their study that the staff who rarely attended the trauma team, felt less team affiliation than the staff that often attended. Several participants from the smaller hospital said that it could take months between each time they participated in the trauma team, so this could be a factor that could affect team affiliation. We wonder if such infrequent participation in the ad hoc trauma team can be a barrier to the scrub nurses' sense of belonging in the team. This is supported in the literature by Ballangrud and Husebø (2018), who points out that one barrier to effective teamwork is having a team that is rarely composed of the same members.. This impairment can affect both the entire team and individual team members (Ballangrud & Husebø, 2018). Some of our participants said they felt useless when other team members completed the scrub nurses' tasks in the team. We wonder if this could also be a factor that can impede the sense of belonging on the team.

One factor that participants identified gave them a sense of belonging in the team, was that they possessed special skills that were necessary in the team and for the patient. Through their specialist education and advanced knowledge about surgical interventions and procedures, the scrub nurse can contribute to emergency procedures performed in the ER and also serve as a link between the ER and the OR (Eide et al., 2019). Even though the majority of the participants from the smaller hospital said that their special qualifications were not always needed in every trauma reception, they still prioritised attendance, because they could never know for sure that they would not be needed. This perhaps indicates that the scrub nurses acknowledge that they are a necessary part of the trauma team. We wonder if the unfamiliarity with the trauma room in the ER and the ER staff could be factors that affect the sense of affiliation with the team, and whether this could change in time when the scrub nurses has obtained more experience with participation in the trauma team.

6.3 "At the end of the day, it is about the resources"

One topic that was brought up by all participants was resources in the form of staffing or funds for training and courses. Participants from both hospitals said that there were too few scrub nurses on duty to always attend the trauma team. It was particularly difficult on evening and night shifts. The participants form the smaller hospital were forced to sometime deprioritise attendance in the trauma team because of ongoing surgeries, while at the larger

hospital, the scrub nurses could draw on colleagues from other operating departments in the hospital to come and help while one scrub nurse attended the trauma team. In the literature, Stubberud (2019) points out that safe and proper healthcare requires enough competent personnel available to the patient. He talks about healthcare in general, but we believe that this is also the case in the trauma team, where there is a great need for sufficient competency due to the patient's potentially critical condition (NKT-Traume, 2020c).

Staffing has through many years been a large theme in the debate on how to maintain budgets and save money in the Norwegian health services (Stubberud, 2019). The number of staff on duty is described as a key factor for good patient outcomes, and insufficient nurse staffing results in necessary treatment not being given (Stubberud, 2019). Our participants said that the unequal distribution between available and necessary scrub nurses could in some cases lead to either one patient having their surgery postponed (because of insufficient staff at the operating department) or the trauma patient having to do without the scrub nurse's special competence in the ER. The scrub nurses expressed concern for the patients in both these scenarios. The lack of resources in the form of personnel to handle a simultaneous demand from the OR and the ER, affects how often each scrub nurse has a chance to attend the trauma team. Because of this, we also view resources as a factor contributing to a decreased sense of belonging in the team, in accordance with what we have discussed earlier.

Another topic that emerged related to resources was a desire for more simulation and trauma team training and funding to attend seminars. Simulation and training are beneficial for the interdisciplinary trauma team, and Weller et al. (2014) recommends that teams that work together, should train together. Simulation and courses were described by the participants as "fun", "educational" and "motivational", indicating to us that training is associated with increased job satisfaction and a positive attitude towards trauma team participation. Finstad et al. (2017), Lapierre et al. (2019) and Husebø and Rystedt (2018) describe how training and simulation increases the participant's knowledge about the trauma patient and the necessary treatment. Kaldheim, Fossum, Munday, Johnsen, et al. (2021) and Kaldheim, Fossum, Munday, Creutzfeldt, et al. (2021) explored interprofessional simulation-based learning (ISBL) in perioperative nursing students, and through focus group interviews it was found that ISBL helped the perioperative nursing students increase preparedness for handling acute situations in the clinical setting. Although the population of these two studies were perioperative nursing students, we believe that these findings may be transferable to our

population of scrub nurses. We believe that practicing how to handle an acute situation is beneficial regardless of the participant's level of education. Through training and simulation, individual teamwork skills can be improved and participants can gain a better understanding of other team member's roles, leading to improved interdisciplinary teamwork (Courtenay et al., 2013; Husebø & Rystedt, 2018; Lapierre et al., 2019; Schibevaag et al., 2018; Weller et al., 2014). Training and simulation can also improve communication skills (Courtenay et al., 2013; Husebø & Rystedt, 2018; Härgestam et al., 2016). In sum, this all can lead to improved patient outcomes and patient safety (Husebø & Rystedt, 2018; Murphy et al., 2019; Pak & Hardasmalani, 2015).

6.4 "Experience and training is important in order to do a good job in the trauma team"

Participants from both hospitals emphasised that trauma team training gave them experience that could be transferred to the real trauma setting, and this made them more prepared for challenges of treating a trauma patient. The participants said this helped to negate the insecurity they could sometimes feel when they did not know what to expect or prepare for. This finding is supported in the literature by Sollid (2018) who suggests that simulation improves quality of treatment and critical care team performance when treating critically ill patients. Regular training in critical care situations could improve the scrub nurse's feeling of security and ability to handle emergency cases (Sollid, 2018). We found that the participants with more experience with participation in the trauma team, appeared to feel less insecure when dealing with a trauma patient even if they did not know what to expect. The larger hospital has four times more trauma activations per year than the smaller hospital (Nasjonalt traumeregister, 2021), giving the scrub nurses there more training and experience with trauma receptions, and we found that they spoke less of feeling insecure in the trauma reception. This suggests, in line with the findings of Sollid (2018) that more exposure to trauma receptions could lead to the scrub nurses feeling more comfortable in the trauma team.

The unfamiliar work environment in the trauma room in the ER was a source of frustration and insecurity among the scrub nurses from the smaller hospital. Finding the required instruments and equipment during a trauma reception was difficult according to some participants. Lack of necessary equipment was also a problem. However, the participants from the larger hospital, and those from the smaller hospital who had more experience with participating in the trauma team, did not mention either lack of equipment nor unfamiliar

work environment as an issue. Again, we draw a line between frequent practice and training, and feelings of confidence or insecurity. Sollid (2018) points to the benefits of training in the same environment as the trauma reception is carried out, in order to familiarise oneself with the surroundings and equipment. Lapierre et al. (2019) found that both the physical environment and available equipment can affect trauma team performance. Also Pak and Hardasmalani (2015) found that being unfamiliar with available equipment could lead to a delay in interventions and subsequent adverse events. Instruments and equipment that are needed to treat the trauma patient, needs to be readily available and known to staff, because of the unpredictable and unstable nature of a trauma patient (Gawronski, 2019). The desire for more training in the emergency room, the need to become more familiar within the emergency room and with the equipment available there was brought up by several of the participants from the smaller hospital. It appears to be reasonable to consider that if scrub nurses at the smaller hospital gained an opportunity to become more familiar with the trauma room, it could possibly lead to a better experience when they are treating trauma patients.

In our findings, some distinct differences emerge between the smaller and the larger hospital - feelings of affiliation with the trauma team, unfamiliarity in the trauma room and feeling insecure when facing a severely injured patient. We believe that these differences could potentially be attributed to the significantly larger volume of trauma patients per year at the larger hospital. The larger hospital also differentiates between large and small trauma teams with the scrub nurse only attending large teams where their special qualifications are more often utilised. These factors could potentially lead to the scrub nurses at the larger hospital having gained more experience compared to the scrub nurses in the smaller hospital, and we believe that this may contribute to these differences.

Among some of the participants from the smaller hospital, some conflicting statements emerged regarding cooperation in the trauma team and a sense of belonging in the team. Some of the participants who expressed that they thought team cooperation was efficient, also expressed that they did not always feel like a part of the team. We are curious why some participants experience efficient cooperation in the team and simultaneously do not feel like they belong in the team. We did not explore this further during the interviews, as these conflicting opinions appeared to us during data analysis. Consequently, we have no foundation for any interpretations about this ambiguity in the participants expressions.

6.5 Strengths and limitations

The first strength of our study is that we have chosen a suitable study design for our research question and the type of data we wanted to collect. Another strength is that we have reached good variation in age, gender and work experience among our study participants, and the sample is representative of the workforce demographics at the study sites. We have interviewed in two different hospitals, and we regard this as a strength as we are able to triangulate data over multiple sites (Polit & Beck, 2018).

However, our study also has some limitations. The sample in our study is small (n=13), and this may be too small to say with certainty that the findings are true for all scrub nurses who participate in the trauma team. In a qualitative interview, the data collection instrument is ourselves (Polit & Beck, 2018). The role as researcher is a new one to all three of us, and this could affect our data collection, through the way we outlined our interview guide and how we asked our questions. We have very little experience with participation in the trauma team ourselves, and this could also affect the questions we asked, or our ability to ask the right follow-up questions.

7.0 CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH

In our study of two perioperative departments in Norway, some distinct themes related to the scrub nurses' experiences with participation in the trauma team emerged.

A widespread opinion was that participation in the trauma team was exciting. All our participants expressed that they felt they possessed the knowledge about their roles and responsibilities in the trauma team. The participants expressed an overall satisfaction with the cooperation in the trauma team. Communication and respect were highlighted as important elements of good cooperation that contributed to a positive experience with participation in the trauma team. The participants expressed that although their special qualifications as a scrub nurse were not always utilised in every trauma reception, they acknowledged the importance of their presence on the team.

The scrub nurses expressed that a lack of sufficient staff on duty could sometimes affect their ability to participate in the trauma team as they had to prioritise where they were most needed. Based on our findings, we believe that the amount of trauma team practice the scrub nurses obtain, through both training and real trauma situations, may influence the scrubs nurses' experiences with participation in the trauma team, and may increase their confidence in trauma situations.

Future research could potentially explore whether or not the experiences of scrub nurses in the smaller hospital change after they have obtained more experience with participation in the hospital's trauma team. In our study we have explored our research question from the point of view of scrub nurses. It could also be interesting to explore the other team members' experiences with participation in the trauma team. Finally, an exploration of the scrub nurses' attitudes towards cooperation and sense of belonging in the trauma team could possibly shed light on the ambiguity we have found.

7.1 Implications for practice

Based on our findings, it seems that the scrub nurses who participated in this study wanted more trauma team training. To ensure that the scrub nurses' proficiencies with handling

trauma patients are maintained, trauma team training should be prioritised for all scrub nurses who attend the trauma team.

A number of our participants said they were not sufficiently familiar with the trauma room in the ER and the equipment in this room. Therefore, we believe that an arrangement to ensure regular reviews of the room and the equipment, for all scrub nurses who attend the trauma team, would be beneficial.

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Appendix 1: Search strategies

(“scrub nurse” OR “perioper* nurse” OR “surg* nurse” OR “intraoper* nurse” OR “theat* nurse” OR “operating room nurse” OR “or nurse”) AND (“trauma team*” OR “trauma recep*” OR “trauma resus*”) AND (experience* OR attitude* OR perception* OR view* OR opinion* OR perspective*)	Limiters - Published Date: 20100101-20221231 Narrow by Language: - english Search modes - Boolean/Phrase	Results: 43

((scrub OR perioper* OR surg* OR intraoper* OR theat* OR “operating room”) AND nurs*) AND (experience* OR attitude* OR perception* OR view* OR opinion* OR perspective*) AND (Trauma AND (team* OR recep* OR resus*))	Limiters - Published Date: 20100101-20221231 Narrow by Language: - english Search modes - Boolean/Phrase	Results: 396

Appendix 2: National guideline for criteria for acitivating the trauma team

Kriterier for alarmering av traumeteam

K

Vitale funksjoner		
Respirasjonsfrekvens	<10 eller >29/min, eller behov for ventilasjonsstøtte (< 20 for barn < 1 år)	
Oksygenmetning (SpO2)	<90% uten O2	
Hjertefrekvens > 130/min		Ja **Utløse traumealarm**
Systolisk BT	≤90 mm Hg	
GCS	≤13	
Alvorlig nedkjøling uten normal sirkulasjon		
Drukning med mulighet for skade		

Anatomisk skadeomfang		
Ansiktsskade med truet luftvei		
Åpent skallebrudd/impresjonsfraktur		
Penetrerende skade på ansikt, hals, torso og ekstremiteter proksimalt for albu eller kne		
Sterke smerter i thorax (mistanke om multiple costafrakturer)		Ja **Utløse traumealarm**
Store ytre blødninger		
Stor knusningsskade		
To eller flere store frakturer		
Sterke smerter i bekken (mistanke om bekkenbrudd)		
Mistanke om ryggmargsskade (nevrologisk utfall)		
Skade i to kroppsavsnitt (hode/hals/thorax/abdomen/bekken/rygg/ femur)		
2. eller 3.grads forbrenning > 15 % av kroppsoverflate (barn >10 %) eller inhalasjonsskade		

Skademekanisme		
Bilskade eller utforkjøring		
> 50 km/t uten bilbelte eller ikke utløst airbag		
Kjøretøyet har rullet rundt		
Fastklemt person i kjøretøy		Ja **Utløse traumealarm**
Kastet ut av kjøretøyet		
Syklist eller fotgjenger påkjørt av motorkjøretøy		
Fall fra høyde > 5 m voksen, > 3 m barn		

HVIS:	
Alder > 60 år	
Alder < 5 år	
Alvorlig grunnsykdom	
Gravid pasient > uke 20	
Økt blødningsfare (antikoagulasjon)	
Ruspåvirkning	

Lavere terskel for utløsing av traumealarm

Appendix 3: Interview guide in Norwegian and English

Intervjuguide - norsk

Før intervjuet

- Sørg for å ha en grei plass å sitte hvor det er uforstyrret.
- Ha drikke og noe snacks tilgjengelig. Tilby før en setter på opptaker, ikke noe som knaser eller bråker når de snakker.
- Sjekk at utstyret virker.
- Ha med ekstra batteri til lydopptaker!

1. Løst prat

Hilse på den man intervjuer. Samle inn samtykkeskjema dersom dette ikke er levert tidligere.

2. Informasjon

Vår problemstilling:
Hva er operasjonssykepleiers erfaring med å delta i traumeteamet?

Formål med studien:
Vi ønsker å undersøke hvilke erfaringer operasjonssykepleieren har med å delta i sykehusets traumeteam.
Vi er ikke ute etter å vurdere situasjoner ut i fra hva som er rett eller galt, vi er interessert i å høre om dine erfaringer med traumeteamet.

Studien vår er godkjent av NSD (Norsk Senter for forskningsdata) og følger deres retningslinjer. Vi vil bruke lydopptaker.

Vi vil minne om taushetsplikten - overfor pasienter som har blitt behandlet i traumemottak, og overfor kollegaer man jobber sammen med. Vi har også taushetsplikt om informasjonen som kommer frem i disse intervjuene.

Alle data vil bli transkribert og anonymisert. Du vil bli tildelt en kode uten sammenheng med persondata, og dine svar vil ikke kunne knyttes til deg. Vi lagrer all data på passordbeskyttet skylagring.

Har du noen spørsmål?

Start opptak.

3. Vi starter med å stille litt spørsmål om din bakgrunn:

- Hvor gammel er du?
- Hvor lenge har du jobbet som operasjonssykepleier?
- Hvor lenge har du vært med i traumeteamet?
- Har du gjennomført KITS kurset?

4. Hovedspørsmål:

- Hvordan opplever du det å være en del av traumeteamet?
    - Hva er det som gjør at du opplever det du sier nå……

- Hvilke oppgaver har du som operasjonssykepleier i traumeteamet?

- Har du tenkt om det er andre oppgaver du som operasjonssykepleier kunne utført i et traumemottak?
    - Hvilke?
    - Har du erfart å få andre oppgaver enn det du egentlig skal?

- Hvilke faktorer påvirker om du velger å møte opp eller ikke i akuttmottak når traumealarmen går?

- I hvilken grad opplever du at rollen din er tydelig og veldefinert?
    - Kan du gi et eksempel?

- Hvor trygg føler du deg i rollen din i traumeteamet?
    - Hva er det som gjør at du føler deg trygg/utrygg?
    - Evt er det noe spesielt som skulle til for at du føler deg mer trygg på rollen?

- Hvordan opplever du samarbeidet med andre sykepleiere og leger i traumeteamet?
    - Hva er det som gjør at du….
    - Hva legger du i et godt/dårlig samarbeid?

- Var du med på traumemottak før operasjonssykepleier ble med i traumeteam? Hvis ja - Hvordan syns du det er å være i traumemottak nå kontra da?

5. Oppfølgingsspørsmål

Nå har vi snakket om alle spørsmålene jeg ville stille deg. Er det noe jeg ikke har spurt om som du mener er relevant? Er det noe annet du tenker du har lyst å tilføye når vi snakker om dine erfaringer med deltagelse i traumeteam?

Dette lydopptaket kommer til å bli transkribert til tekst. Ønsker du å se gjennom transkriberingen?

Stans opptak.

Takk for at du ville stille opp i intervjuet.

Interview guide – English

Before the interview

- Find a suitable and undisturbed place to conduct the interview
- Have a snack and something to drink available. Offer snacks before the audio recording is started to avoid disturbing noise when they speak
- Check that the equipment functions
- Bring extra batteries for the audio recorder

1. *Loose talk*

Greet the informant. Collect consent form if this has not already been submitted. Check that they meet inclusion criteria.

2. Information

Our research question:
What are the scrub nurses' experiences with being part of the trauma team?

Purpose of the study:
We want to investigate which experiences the scrub nurse has with participating in the hospital's trauma team.
We are not interested in assessing situations based on what is right and wrong, our interest lies in hearing about your experiences with the trauma team.

Our study is approved by NSD (The Norwegian Center for Research Data) and is in compliance with their guidelines. We will use an audio recorder.

We would like to remind you about confidentiality - about patients that have been treated in the trauma team, and about colleagues you work with. We as researchers have obligations of confidentiality about all information that emerges in these interviews.

All data will be transcribed and de-identified. You will be assigned a code without connection to personal data, and your replies will not be able to be linked back to you. We store all data on password-protected cloud storage.

We are looking for the informants' experiences with the topic, we are not looking to judge the informants according to what has been done, whether something is right or wrong.

Does you have questions?

<u>Start recording.</u>

3. We start by asking some background questions

- How old are you?
- How long have you worked as a scrub nurse?
- How long have you participated in the trauma team?
- Have you completed the KITS course?

4. Main questions

- How do you feel about being part of the trauma team?
    - Why do you feel that…..

- Which tasks do you have as a scrub nurse in the trauma team?

- Have you thought about any other tasks you as a scrub nurse could perform in the trauma team?
    - Which ones?
    - Have you ever been assigned other tasks than the ones you are supposed to do?

- What factors influence whether or not you decide to appear in the emergency room when the trauma alarm is activated?

- To what degree do you feel that your role in the trauma team is clear and well defined?
    - Can you give an example?

- How confident do you feel in your role in the trauma team?
    - What is it that makes you feel confident/not confident?
    - Would it take anything special for you to feel more confident about your role?

- How do you experience the cooperation with the other nurses and the doctors in the trauma team?
    - Why do you feel that…..
    - What do you think makes for a good/bad cooperation?

- Did you participate in trauma receptions before the scrub nurse was formally included on the team? If yes – how do you feel about participation in the trauma reception now versus then?

5. Follow-up questions

We have now talked about all the questions I wanted to ask you. Is there anything I have not asked, that you think would be relevant? Is there anything else you would like to add while we are on the subject of your experiences with participation in the trauma team?

This sound recording will be transcribed into text. Would you like to read through the transcript?

<u>Stop recording.</u>

Thank you for participating in the interview.

Appendix 4: Invitation email

Hei!
Vi er tre masterstudenter i operasjonssykepleie ved UiA som nå skal skrive masteroppgave. Vi trenger respondenter, og derfor sender vi denne invitasjonen til deg.

Tema for vår masteroppgave er:
«*Operasjonssykepleierens erfaringer med å delta i traumeteamet. En kvalitativ studie*»

Vi ønsker gjerne å intervjue deg som har jobbet som operasjonssykepleier i mer en ett år, som har tatt KITS kurs (Kurs i traumesykepleie) og som deltar i traumeteam.

Vedlagt finner du et skriv med informasjon om studien vår, samt samtykkeskjema.

Etter avtale med din enhetsleder, så kan intervjuet gjennomføres i din arbeidstid, på dagvakt. Du vil bli løst fra dine arbeidsoppgaver i tiden intervjuet tar.

Vi håper at nettopp du har lyst til å delta i studien vår.
Vi ønsker svært gjerne å gjennomføre intervjuene før jul, så vi håper på rask tilbakemelding dersom du kan tenke deg å delta.

- Eirin Tobiassen: eirinv06@student.uia.no Tlf: 9709 5014
- Lise Bakken: liseba13@student.uia.no. Tlf: 4760 3551
- Anne Brox: anneb06@student.uia.no Tlf: 9099 0708

Lurer du på noe? Nøl ikke med å ta kontakt med oss 🙂

Med vennlig hilsen
Anne Brox, Lise Bakken og Eirin Tobiassen

Appendix 5: Quotations in original language

“Vi har jo, alle i traumeteamet har jo sine roller ja, og vi er jo, vi vet jo akkurat hva vi skal gjøre, hvor du skal stå, hva din oppgave er, og hva du eventuelt må gjøre” (Respondent nr. 1).

“Det er jo er litt avhengig av oss selv, at vi ikke, på en måte, definerer oss vekk fra pasienten og fra traume bordet, men at vi er i, at vi, liksom, tar vår plass der nede” (respondent nr. 2).

“Godt samarbeid i traumeteamet er jo at, kommunikasjon er jo veldig viktig, det skal være sånn «closed loop» kommunikasjon, så det er sikkert at alt blir mottatt, og bekreftet, og utført” (Respondent nr. 1).

“og der er jo den teamlederen vesentlig, man har klare tydelige beskjeder som kommer fra han, han har god kall på closed loop kommunikasjon, som sørger for at alle blir informert om hva de finner, og hva, hvordan tilstanden er, men kommunikasjon er vesentlig” (respondent nr. 2).

“Man er ett lag, og jobben skal bli gjort. Det er sånn jeg tenker” (Respondent nr. 8).

“det er viktig at en har en fremtoning som gjør at du prøver å gjøre alle gode da, ikke sant, i temaet, for å få best mulig resultat”. Det er jo akkurat det samme som her oppe hos oss, at teamarbeid er jo egentlig hovedcluet for å få et godt resultat, å være en god teamarbeider med å ha respekt for hverandre, ha en hyggelig fremtoning og hjelpe hverandre” (Respondent nr.13).

“Og det ser vi jo, når vi kommer ned så henger det utstyr til oss på samme linje som det henger til alle de andre” (Respondent nr. 4).

“og vi er blitt tatt godt imot når vi kom ned før vi var en definert del av teamet, men nå, nå er vi jo en del av teamet, så nå er det jo på en måte helt naturlig at vi dukker opp” (Respondent nr. 4).

“Så.. man er en gjest, og den ubehagsfølelsen, den sitter der” (Respondent nr. 8).

“Og i utgangspunktet så ønsker en jo ikke forlate her, hvis en trengs her oppe, så er det på en måte her en føler størst tilhørighet da” (Respondent nr. 13).

”Jeg syns det er viktig at operasjonssykepleier er med i dette type teamet, fordi vi vår rolle er så veldig avgjørende hvis pasienten må opereres , og, da er det best for alle, både for oss som gruppe, og for pasienten og behandlingen videre, at vi er med helt fra starten (Respondent nr. 7).

”Jeg tror det er viktig for synligheten, for operasjonssykepleie, at vi er med i traumeteamet, men, syns det er naturlig at vi er der, og, tenker vi må bare bli enda mer synlige, vi er gjemt oppe på avdelingen” (Respondent nr. 3).

“Men det jo det med ressurser da, det er jo ikke gitt oss noe ekstra ressurser, så det at det er jo på en måte tid som er tatt fra å være her oppe, så det er egentlig helst det det går på, ønsker gjerne å være en del av det, men ser jo at det går på bekostning av en del av oppgavene her” (respondent nr.13).

“Jeg føler av og til det der ansvaret jeg har her opp, altså jeg er litt langt vekke fra avdelingen” (respondent nr. 3).

“Jeg opplever det av og til ganske spennende, av og til egentlig unødvendig, og så opplever jeg av og til at, ja, at jeg går litt, at jeg er litt i veien egentlig, når jeg er der nede” (respondent nr. 11).

“Jeg tenker det er mange andre som kan legge inn et urinkateter, og det er ofte så sent i forløpet, at vi kanskje kunne vært frigitt fra teamet og heller opp hit” (respondent nr. 13).

“Det er veldig begrensa opplæring på å bli kjent på den stua. Det er veldig sjelden vi liksom har tid til å gå ned der og titte litt, liksom” (respondent nr. 12).

“Hver fjerde fredag så er det sånn traume øvelse, hvor de sender ned en til to fra vår avdeling, så det er, det er lenge siden jeg har vært på, men det var jeg på for, ja, ganske lenge siden da, det er morro” (respondent nr. 10).

“jeg er trygg på det jeg skal gjøre der og da men hvis det kommer noen situasjoner hvor en skal gjøre noe mer den vanlige rollen, eller oppgavene, så vil jeg nok kjenne litt på den.. utryggheten” (Respondent nr. 3).

“det er alltid en fordel å være med i fra starten av team, istedenfor å komme midt i. Man får liksom en historie og får et inntrykk hva som har skjedd, og det er lettere å liksom tenke fremover i tid hva, hva trenger man og hva skal man gjøre, hva.. planlegge litt frem i tid, det

er mye lettere hvis man er med i fra starten i et traumeteam, en å bare komme til en skadet person som man skal operere" (Respondent nr. 2).

"for eksempel dette akutte aortaaneurismet som kommer inn, ikke sant, da kan teamet her oppe stå klar med åpne instrumenter og ferdig påkledd sånn at når pasienten kommer inn rett over på operasjonsbordet, vi kan desinfisere huden mens anestesien holder på å også forberede narkose, karkirurgene de kjører som gale hjemmefra og er her omtrent samtidig slik at vi omtrent kan begynne også operere bare noen minutter etter at de har kommet inn. Det kan være, det kan være livsavgjørende for pasienten" (respondent nr. 4).

"Det blir som å gå i naboens hus og skulle finne alt mulig rart" (Respondent nr. 8).

"Her vet vi hvor alt hvor er, vi har våre instrumentrister, der nede er det helt annerledes bakker med, med utstyr.. som liksom mottak eier" (Respondent 12).

"Også er det også det at vi er jo vant til å være to, to av oss, ikke sant, vi er veldig vant til å ha en å støtte seg på av operasjonssykepleier, mens der nede står en sånn sett alene, i forhold til det da, hvis det først smeller, men da prøver man jo å få tak i kollega, og det har jeg vært med på ganske mange ganger, at det har vært større ting, og da er vi to der nede, så sant det lar seg gjøre. Så det er veldig godt, å ha noen å støtte seg på" (Respondent 13).

"Det er, det kommer ikke over natten, og det, man må ha vært med på mye forskjellig og man må være godt kjent i de rommene og utstyret, vite hva det brukes til, vært på kurs, gjerne simulert, og øvd slik at, gått igjennom både mentalt og fysisk, på en måte, ta på ting. Og vite hvor ting er, da er man, tryggere" (Respondent nr. 7).

Appendix 6: Approval from The Norwegian Centre for Research Data 1

Vurdering

Referansenummer

422786

Prosjekttittel

Masteroppgave i spesialsykepleie: Hva er operasjonssykepleiers erfaringer med å delta i traumeteam?

Behandlingsansvarlig institusjon

Universitetet i Agder / Fakultet for helse- og idrettsvitenskap / Institutt for helse- og sykepleievitenskap

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Gudrun Elin Rohde, gudrun.e.rohde@uia.no, tlf: 99164094

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student

Anne Brox, anneb06@student.uia.no, tlf: 90990708

Prosjektperiode

20.09.2021 - 26.06.2022

07.10.2021 10:42

Behandlingen av personopplysninger er vurdert av NSD. Vurderingen er: Det er vår vurdering at behandlingen vil være i samsvar med personvernlovgivningen, så fremt den 07.10.2021 gjennomføres i tråd med det som er dokumentert i meldeskjemaet den dagens dato med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige personopplysninger frem til 26.06.2022.

LOVLIG GRUNNLAG
Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger.

Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake. For alminnelige personopplysninger vil lovlig grunnlag for behandlingen være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 a.

PERSONVERNPRINSIPPER
NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen:
- om lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet.

DE REGISTRERTES RETTIGHETER
NSD vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18) og dataportabilitet (art. 20).

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

For å forsikre dere om at kravene oppfylles, må prosjektansvarlig følge interne retningslinjer/rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilken type endringer det er nødvendig å melde: nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema

Du må vente på svar fra NSD før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET
NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet. Kontaktperson hos NSD: Henriette N. Munthe-Kaas

Lykke til med prosjektet!

Appendix 7: Approval from The Norwegian Centre for Research Data 2

Vurdering

Referansenummer

422786

Prosjekttittel

Masteroppgave i spesialsykepleie: Hva er operasjonssykepleiers erfaringer med å delta i traumeteam?

Behandlingsansvarlig institusjon

Universitetet i Agder / Fakultet for helse- og idrettsvitenskap / Institutt for helse- og sykepleievitenskap

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Gudrun Elin Rohde, gudrun.e.rohde@uia.no, tlf: 99164094

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student

Anne Brox, anneb06@student.uia.no, tlf: 90990708

Prosjektperiode

20.09.2021 - 26.06.2022

Vurdering (2)

10.12.2021 - Vurdert

NSD har vurdert endringen registrert 08.10.2021. Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet med vedlegg den 10.12.2021. Behandlingen kan fortsette. ENDRINGEN GJELDER Endringen gjelder at de personlige intervjuene blir gjennomført på Zoom. FØLG DIN INSTITUSJONS RETNINGSLINJER NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32). Zoom er databehandler i prosjektet. NSD legger til grunn at behandlingen oppfyller kravene til bruk av databehandler, jf. art 28 og 29. For å forsikre dere om at kravene

oppfylles, må dere følge interne retningslinjer og/eller rådføre dere med behandlingsansvarlig institusjon. OPPFØLGING AV PROSJEKTET NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet. Kontaktperson hos NSD: Henriette N. Munthe-Kaas Lykke til videre med prosjektet!

Appendix 8: Approval University of Agder Research Ethics Committee

Anne Brox

Besøksadresse:
Universitetsveien 25
Kristiansand

Ref: [object Object]

Tidspunkt for godkjenning: : 04/11/2021

Søknad om etisk godkjenning av forskningsprosjekt - Hva er operasjonssykepleierens erfaringer med å delta i traumeteam? En kvalitativ studie

Vi informerer om at din søknad er ferdig behandlet og godkjent.

Kommentar fra godkjenner:

Hilsen
Forskningsetisk komite
Fakultet for helse - og idrettsvitenskap
Universitetet i Agder

UNIVERSITETET I AGDER
POSTBOKS 422 4604 KRISTIANSAND
TELEFON 38 14 10 00
ORG. NR 970 546 200 MVA - post@uia.no -
www.uia.no

FAKTURAADRESSE:
UNIVERSITETET I AGDER,
FAKTURAMOTTAK
POSTBOKS 383 ALNABRU 0614 OSLO

Appendix 9: Personvernombud hospital 1

Personvernombudet har svart:

Behandlingen av personopplysninger er vurdert av NSD. Vurderingen er: Det er vår vurdering at behandlingen vil være i samsvar med personvernlovgivningen, så fremt den 07.10.2021 gjennomføres i tråd med det som er dokumentert i meldeskjemaet den dagens dato med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

Jeg har ingen kommentar og behandlingen kan starte.

Lykke til med datainnsamlingen.

Mvh [redacted]

Appendix 10: Personvernombud hospital 2

[redacted]

Postadresse:

[redacted]

PERSONVERNOMBUDETS UTTALELSE

Sentralbord:

Til: Lise Bakken, Anne Brox, Eirin Tobiassen

[redacted]

Org.nr:

Fra: Personvernombudet ved [redacted]

[redacted]

Dato: 24.11.2021

www.[redacted].no

Saksnummer:
21/24412

Personvernombudets uttalelse til innsamling og behandling av personopplysninger for forskning i prosjektet: The scrub nurse´s experience of participating in the trauma team

Personvernombudet har vurdert det til at den planlagte databehandlingen av personopplysninger tilfredsstiller de krav som stilles i helse- og personvernlovgivningen.

Personvernombudet har ingen innvendinger til at den planlagte databehandlingen av personopplysninger kan igangsettes under forutsetning av følgende:

1. Forskningsansvarlig / databehandlingsansvarlig er Universitetet i Agder
2. Behandling av personopplysningene / helseopplysninger i studien skjer i samsvar med og innenfor det formål som er oppgitt i meldingen.
3. Studien er godkjent av aktuelle avdelingsledere ved [redacted].
4. Prosjektet er forelagt NSD.
5. Studien er frivillig og samtykkebasert.

6. Data lagres avidentifisert. Kryssliste som kobler avidentifiserte data med personopplysninger lagres separat og avlåst.
7. Data slettes eller anonymiseres etter prosjektslutt.
8. Dersom formålet, utvalget av inkluderte eller databehandlingen endres må personvernombudet gis forhåndsinformasjon om dette.

Med hilsen

[redacted]
Personvernombud

[redacted]
Direktørens stab | Personvern

Appendix 11: Information and consent form

Vil du delta i forskningsprosjektet

«Operasjonssykepleierens erfaringer med å delta i traumeteamet. En kvalitativ studie»

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å utforske operasjonssykepleierens erfaringer med å delta i traumeteamet. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål
Formålet med prosjektet er å avdekke hvilke erfaringer operasjonssykepleierne har gjort seg med å delta i sykehusets traumeteam. Studien utføres som del av en masteroppgave i spesialsykepleie ved Universitetet i Agder, med fordypning i operasjonssykepleie. Vi håper at studien kan bidra til å forbedre og utvikle praksis. Temaet er foreslått av operasjonsavdelingen ved Sørlandet Sykehus Kristiansand (SSK) som mulig tema for masteroppgave. Opplysningene som samles inn, vil ikke bli brukt til andre formål enn det som er oppgitt ovenfor.

Vår problemstilling:

Hva er operasjonssykepleierens erfaringer med å delta i traumeteam?

Hvem er ansvarlig for forskningsprosjektet?

Universitetet i Agder er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?

Du får spørsmål om å delta i denne studien fordi du er operasjonssykepleier. Vi ønsker å rekruttere 10-12 operasjonssykepleiere av ulikt kjønn, alder og antall års arbeidserfaring. For å kunne delta må du ha jobbet som operasjonssykepleier i minst ett år, gjennomført KITS-kurs og deltatt på traumeteam. Enhetsleder ved operasjonsavdelingen har gitt oss kontaktinformasjon til alle operasjonssykepleiere som oppfyller inklusjonskriteriene, etter at vi har innhentet de nødvendige tillatelser til dette.
Hva innebærer det for deg å delta?
Hvis du velger å delta i prosjektet, innebærer dette at du sier ja til å delta på et individuelt intervju som vil bli tatt opp på lydbånd. Intervjuet vil bli gjennomført på din arbeidsplass på et tidspunkt som passer for deg, etter at du har samtykket til deltagelse. Vi anslår at intervjuet

vil vare i 30-45 minutter, og det vil bli gjennomført av en av oss masterstudentene; Eirin Tobiassen, Lise Bakken og Anne Brox. Vi vil stille spørsmål som omhandler din deltakelse i traumeteamet. Etter intervjuet vil lydfilen bli transkribert til et tekstdokument.
Vi vil ikke samle inn andre opplysninger om deg enn hvor lenge du har jobbet som operasjonssykepleier, alderen din, og hvor lenge du har deltatt på traumeteamet. Alle opplysninger som kan føre til gjenkjenning av deg, vil bli fjernet.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta kan du trekke tilbake samtykket uten å oppgi noen grunn frem til dataene er analysert og avidentifisert. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket. En kode knytter deg til dine opplysninger gjennom en navneliste, og det er kun masterstudentene Eirin Tobiassen, Lise Bakken og Anne Brox som har adgang til navnelisten. Navnelisten samt datamateriale fra intervjuene vil oppbevares på passordbeskyttet skylagring på Universitetet i Agder sin nettområde. Det er kun forfatterne av masteroppgaven som har tilgang til denne informasjonen. Funnene vil bli publisert i en masteroppgave. Datamateriale vil bli anonymisert slik at det ikke er mulig å identifisere enkeltpersoner.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, noe som etter planen er ca juni 2022. Når prosjektet er over, vil lydfiler og tekstdokumenter slettes.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Universitetet i Agder har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene

å få rettet opplysninger om deg som er feil eller misvisende

å få slettet personopplysninger om deg

å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

Masterstudenter

Eirin Tobiassen: eirinv06@student.uia.no Tlf: 9709 5014

Lise Bakken: liseba13@student.uia.no Tlf: 4760 3551

Anne Brox: anneb06@student.uia.no Tlf: 9099 0708

Veileder/prosjektansvarlig Judy Munday: judy.munday@qut.edu.au Tlf: +61 07 3138 8209 eller Gudrun Elin Rohde: gudrun.e.rohde@uia.no Tel: 9916 4094

UiA Personvernombud Johanne Warberg Lavold, epost personvernombud@uia.no , Tlf: 4121 2048

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:

NSD – Norsk senter for forskningsdata AS på epost (personverntjenester@nsd.no) eller på telefon: 55 58 21 17.

Med vennlig hilsen

Prosjektansvarlig	*Masterstudenter*
(Veileder)	
Judy Munday	Eirin Tobiassen, Lise Bakken, Anne Brox

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet *«Operasjonssykepleierens erfaringer med å delta i traumeteamet. En kvalitativ studie»*, og har fått anledning til å stille spørsmål. Jeg samtykker til:

å delta i intervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet, ca juni 2022

(Signert av prosjektdeltaker, dato)

Are you interested in taking part in the research project

"*The scrub nurses' experience in participating in the trauma team. A qualitative study*"

This is an inquiry about participation in a research project where the main purpose is to explore the scrub nurse's experiences of participating in the trauma team. In this letter we will give you information about the purpose of the project and what your participation will involve.

Purpose

The purpose of the project is to explore the scrub nurse´s experiences of participation in the hospital's trauma team. This study is carried out as part of a Master's thesis in advanced practice nursing, with majors in theatre nursing. We hope that the study can help to improve

and develop practice. The topic is proposed by the operating department at Sørlandet Sykehus Kristiansand (SSK) as a possible topic for the Master's thesis. The information collected will not be used for any purpose other than that stated above.

Our research question is:
What are the scrub nurse's experiences with being part of the trauma team?

Who is responsible for the research project?

University of Agder is responsible for the project.

Why are you being asked to participate?

You are asked to participate in this study because you are a scrub nurse. We wish to recruit 10-12 scrub nurses of different gender, age, and number of years of work experience. To be eligible to participate, you must have worked as a scrub nurse for at least one year, completed a KITS course and participated in the trauma team. The leader at the operating department at SSK have given us contact information for all scrub nurses who require the inclusion criteria, after we have obtained the necessary permissions for this.

What does participation involve for you?

If you choose to participate in the project, your participation will involve an individual interview that will be recorded. The interview will be conducted at your workplace at a time that suits you, after you have consented to participation. We estimate that the interview will last 30-45 minutes, and it will be conducted by one of the Master's students Eirin Tobiassen, Lise Bakken and Anne Brox. We will ask questions about your participation in the trauma team. After the interview, the sound files will be transcribed into text documents.

We will not collect information about you other than how long you have worked as a scrub nurse, your age, and how long you have participated in the trauma team. All information that may lead to your recognition will be removed.

Participation is voluntary

Participation in the project is voluntary. If you choose to participate, you can withdraw your consent without giving a reason up until data analysis is completed and the data has been de-identified. All information about you will be deleted. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use the information about you for the purposes we have described in this letter. We treat the information confidentially and in accordance with the privacy regulations.

A code connects you to your information through a list of names, and only the Master's students Eirin Tobiassen, Lise Bakken and Anne Brox have access to the list of names. The list of names and data material from the interviews will be stored on password-protected cloud storage provided by the University of Agder. Only the authors of the Master's thesis have access to this information. The findings will be published in a Master's thesis. Data material will be anonymised so that it is not possible to identify individuals.

What will happen to your personal data at the end of the research project?

The information is anonymised when the project is completed / the assignment is approved, which according to the plan is approximately June 2022. When the project is over, audio files and text documents will be deleted.

What gives us the right to process your personal data?

We will process your personal data based on your consent. Based on an agreement with University of Agder, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Your rights

As long as you can be identified in the collected data, you have the right to:

- Access the personal data that is being processed about you and receive a copy of your personal data (data portability)
- Request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

If you have questions about the study, or want to know more about or exercise your rights, please contact:

- Master's students:
  - Eirin Tobiassen: eirinv06@student.uia.no Tlf: 9709 5014
  - Lise Bakken: liseba13@student.uia.no Tlf: 4760 3551
  - Anne Brox: anneb06@student.uia.no Tlf: 9099 0708
- Supervisor/project manager Judy Munday: judy.munday@qut.edu.au Tel +61 07 3138 8209 or Gudrun Elin Rohde: gudrun.e.rohde@uia.no Tel: 99164094
- UiA Privacy Johanne Warberg Lavold, email personvernombud@uia.no, telephone 45254401
- NSD – The Norwegian Centre for Research Data AS, by email: (personverntjenester@nsd.no) or by telephone: +47 55 58 21 17.

Yours sincerely,

Project Leader	Master's students
(Supervisor)	
Judy Munday	Eirin Tobiassen, Lise Bakken, Anne Brox

Consent form

I have received and understood information about the project "*The scrub nurse's experiences with participating in the trauma team. A qualitative study*» and have been given the opportunity to ask questions.

I give consent to

- participate in an interview

I give consent for my personal data to be processed until the end date of the project, approximately June 2022.

(Signed by participant, date)

Appendix 12: Allocation of work

All three of us students have contributed equally to the master's thesis.
We conducted four or five interviews each and transcribed our own interviews. The two students who did not conduct the interview both listened to the audio file and read through the transcriptions to assure it was correct. Throughout working with the thesis, we have divided tasks between us. We have frequently gone through each other's work and edited all parts of the text several times while seated together. Because of this we do not feel independent ownership of any parts of the text, but we all have equal ownership of the entire master's thesis.