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We Ran a Hospital

The Norwegian Nurses efforts during the Korean War and the Impact of their Experiences on Norwegian Nursing and Theatre Nursing

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Acknowledgment

An invitation from Ingunn Elstad and Åshild Fause to participate in a summer seminar for nurse historians was the start of this project. At this seminar I presented my preliminary results on an episode in Norwegian nursing history unknown to many: the history of the Norwegian nurses who served in the Norwegian Mobile Army Surgical Hospital (NORMASH) during the Korean War.

The female nurses who invited me to their home and shared their stories of their nursing practice in Korea have by now passed away. I am very grateful for their participation and that they allowed me to use their stories and their pictures from NORMASH, and by that gave a voice to the Norwegian nurses who served at the front.

I would also like to give a heartfelt thanks to my main supervisor for this project, Associate Professor Åshild Fause at UiT - the Arctic University of Norway. Your guidance and supervision have suited me, and without your competence and your dedication to nursing history this project would have been impossible. I am very grateful for all your kind assistance and encouragement during the course of this work. Åshild, thanks to your hospitality and your invitation to your and Nils' home, I have had many memorable evenings with both of you, your friends, and nurse historians from Norway and abroad. A heartfelt thanks also to my co-supervisor, Christine E. Hallett, of the University of Huddersfield in the UK. I have valued your experience and contribution. Christine. It was a pleasure to be with you and Keith in Wakefield discussing the papers and being introduced to Leeds United FC; I now have a new favourite football team in England.

The Norwegian Korean War Veterans Association has been a great help. I would like to thank Lucie Paus Falck for helping me with the names and addresses of the nurses who served during the Korean War and for inviting me to the yearly gathering of the veterans. I enjoyed listening to their memories and hearing them sing the Korean folk song "Arirang".

I would also like to thank Professor Emerita Ingunn Elstad and Professor Emerita Jorunn Mathisen for all of your support and interest in this project and for your guidance in thinking historically.

Turning to my colleague and supervisor in theatre nursing, Edel Hansen: your experience as a theatre nurse and your willingness to answer questions and share your knowledge and memories of the theatre nurses from Tromsø who served at NORMASH have acted as a bridge to the past and have been a great help to me. Thank you.

Else Berg Hansen, thank you for supporting me and backing me up during the process to make this a research project.

And a heartfelt thanks to my family and especially to you, Wenche. Being a nurse yourself, your reading and constructive comments have been of great importance to me, as have all our small talks and laughs over a cup of coffee.

Jan-Thore Lockertsen
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Abstract

During the Korean War (1951–1953), the Norwegian government sent a field hospital to support the United Nations army's peace-enforcement activity to stop aggression by North Korea against South Korea. The field hospital was a mobile army surgical hospital: a MASH. The Norwegian MASH (NORMASH) was operative from July 1951 to October 1954. During this period, 111 nurses and 22 deacons (male nurses) served in seven contingents every six months.

NORMASH was planned by the Norwegian Red Cross, which operated it for a year and a half until November 1951, when it became a military hospital operated by the Norwegian Army Medical Services. NORMASH therefore has a history as both a civilian and a military hospital. Norway did not have an army nursing corps, and females in the army all had civilian status. All nurses were volunteers, and the greater part of the nurses were recruited from civilian hospitals in Norway and returned to civilian hospitals after their service at NORMASH.

Since the history of the Norwegian nurses' efforts during the Korean War has not been previously investigated, the overall aims of this thesis are to explore and document the Norwegian nurses' nursing practice in the combat zone of the Korean War and the impact of their efforts on Norwegian theatre nursing.

A historical research approach has been taken, utilising archive searches, memoirs, searches of contemporary nursing periodicals, autobiographies, textbooks and the oral stories of five nurses and one physician who served at NORMASH in order to explore the research questions.

The first paper is a close study of wartime nursing practice at NORMASH. Only trained theatre nurses were used for nursing work in the operation theatre at NORMASH, and only trained nurses were used for nursing work on the wards. Orderlies and Korean civilians were

trained by the nurses to assist in logistical tasks and auxiliary work, with very good results. NORMASH treated over 90,000 patients, of whom 14,755 were inpatients, and 9,600 operations were performed. The mortality rate during the Korean War was 2.5%; at NORMASH it was 1.2%. The exclusive use of educated nurses in the operating theatre and on the wards was probably a key factor in the field hospital's medical success as a hospital.

The second paper explores the nature of NORMASH. NORMASH was both a humanitarian hospital and a military hospital. It was subject to the Eighth US Army in Korea and served as a frontline hospital 15 to 30 kilometres from the battlefield. Korea was ravaged by war and the country's infrastructure and its provision of civil health care were ruined. NORMASH had a close connection with the adjacent Korean society. It employed civilians and treated Korean civilians on a priority basis. After the armistice in July 1953, NORMASH started an outreach practice with home-based nursing and the training of Korean nurses. The humanitarian side of nursing was a distinctive feature of NORMASH, and it was natural for it to offer health care to civilians, even if officially it was a hospital under military command.

Paper three explores the impact of the wartime nursing experience in Korea on nurses who served there as part of Norwegian nursing after the Korean War. Technological innovation in the form of MASHes stationed close to the battlefield and the use of helicopters to rapidly transport the most severely injured gave the nurses at NORMASH experience of clinical practice in life-saving surgery and the mass evacuation of trauma. These new skills were later introduced into Norwegian nursing through daily practice and through the training of new personnel. Theatre nurses from NORMASH were among those who, after the Korean War, engaged in the nationwide uniform education of theatre nurses. Theatre nurses were cross-trained in anaesthesia, but greater knowledge was required to conduct the anaesthesia necessary in war trauma. The Korean War sped up the process of separating anaesthesia from theatre nursing and creating a new nursing specialty: nurse anaesthetist. After the Korean War, nurses from NORMASH were involved in the establishment and operation of the National Medical Center in Seoul, South Korea, a Scandinavian teaching hospital for educating Korean health personnel.

The Norwegian nurses, who were all volunteers, established a wartime nursing practice that was organised along the lines of civilian hospitals and ensured personalised nursing for every single patient, including Korean civilians and servicemen. The nurses' Korean War

experience served to broaden Norwegian nursing and theatre nursing practice, and the nurses who served during the Korean War became a valuable element of Norway's overall preparedness after the Korean War. One may conclude that NORMASH was a medical and humanitarian success in its time.

Sammendrag

Under Koreakrigen (1951-1953) ble et norsk feltsykehus sendt som støtte til FNs freds gjenopprettende aksjon for å stoppe Nord-Koreas angrep på Sør-Korea. Det norske feltsykehuset var et Mobile Army Surgical Hospital, et MASH. Det norske MASH [NORMASH] var i operativ drift fra juli 1951 til oktober 1954. I løpet av denne perioden tjenestegjorde 111 sykepleierne i syv kontingenter, hver på seks måneder.

NORMASH ble opprinnelig planlagt og organisert av Norges Røde Kors før det i november 1951, etter et halvt års drift ble et militært sykehus administrert av Forsvarets sanitet. NORMASH har derfor en historie både som et sivilt og et militært feltsykehus. Norge hadde ikke et militært sykepleiekorps og kvinnene i forsvaret var alle sivilt tilsatt. Alle sykepleierne var frivillige og største delen av sykepleierne ble rekruttert fra sivile norske sykehus og returnerte til sivile norske sykehus etter tjenesten ved feltsykehuset i Korea.

Historien til de norske sykepleiere som deltok i Koreakrigen er ikke fortalt. Målet med denne avhandlingen er å forske på og dokumentere, de norske sykepleiernes praksis ved fronten under Koreakrigen og betydningen denne tjenesten har hatt for norsk sykepleie og operasjonssykepleie i ettertid.

For å besvare forsknings spørsmålene er det metodisk benyttet flere kilder som søk i arkiv, samtidige sykepleietidsskrifter, biografier og lærebøker i sykepleie, sammen med muntlige kilder ved intervju av fem sykepleiere og en medisiner som alle tjenestegjorde ved NORMASH.

Første artikkel er et nærstudie av sykepleien ved NORMASH. Bare fagutdannete operasjonssykepleiere ble benyttet til sykepleieoppgaver ved operasjonsstua og bare fagutdannete sykepleiere ble benyttet for sykepleieoppgaver på avdelingene. Sykevoktere og

sivile koreanere ble med godt resultat opplært av sykepleierne for å assistere med forefallende oppgaver på operasjonsstua og ved postene. Over 90.000 pasienter ble behandlet ved NORMASH. Av dette var 14.755 pasienter som var innlagte og over 9.600 operasjoner ble utført. Antall dødsfall var for Koreakrigen som helhet 2,5%. For NORMASH var den så lav som 1,2%. Bruken av fagutdannete sykepleiere og operasjonssykepleiere var trolig en medvirkende nøkkelfaktor for NORMASH' medisinske suksess som sykehus.

Andre artikkel utforsker NORMASH identitet. NORMASH var både et humanitært sykehus og et militært sykehus. Det var taktisk underlagt Åttende US Army of Koreas kommando, og var stasjonert ved fronten bare 15-30 kilometer bak slagmarken. Korea var herjet av krig og landets infrastruktur og helsetjenester var ødelagt. NORMASH hadde et nært forhold til det omkringliggende koreanske samfunn. Sivile koreanere ble ansatt på NORMASH og behandlingen av sivile pasienter var prioritert. Etter våpenstillstanden i juli 1953 startet NORMASH med hjemmesykepleie og med opplæring av koreanske sykepleiere. Sykepleiens humanitære del var et karaktertrekk ved NORMASH og det var helt naturlig å gi helsehjelp til sivilsamfunnet selv om det offisielt var et sykehus under militær kommando.

Tredje artikkel utforsker betydningen av de erfaringene som ble gjort av sykepleierne under Koreakrigen i norske sykepleie i ettertid. Teknologiske nyvinninger som MASH stasjonert nær fronten og bruk av helikopter for rask transport fra slagmarken av de hardest skadde, ga sykepleierne klinisk praksis i livreddende kirurgi og masseevakuering av skadde. Dette var lærdom som sykepleierne introduserte i norsk sykepleie gjennom daglig arbeid og ved opplæring av nytt helsepersonell. Operasjonssykepleierne fra NORMASH var blant de sykepleierne som etter Koreakrigen arbeidet for en nasjonal enhetlig utdannelse av operasjonssykepleiere. Operasjonssykepleierne var også utdannet til å gi anestesi, men det trengtes mer kunnskap for å utføre den anestesi som var nødvendig for operasjoner av krigsskadde enn det operasjonssykepleierne på den tiden, hadde. Koreakrigens erfaringer bidro i prosessen med å separere anestesi fra operasjonssykepleie og til en ny sykepleiespesialitet, anestesisykepleie. Tidligere sykepleiere fra NORMASH var etter Koreakrigen med på å etablere og drive National Medical Center i Seoul, Sør-Korea, et skandinavisk undervisningssykehus for utdanning av koreansk helsepersonell.

De norske sykepleiere etablerte under Koreakrigen en sykepleie med store likhetstrekk med et sivilt sykehus, med tanke på organiseringen av sykepleien slik at pasienter, fikk en

sykepleie tilpasset deres situasjon og diagnose. Sykepleierne erfaringer under Koreakrigen utvidet norsk sykepleie og operasjonssykepleie og de sykepleierne som tjente under Koreakrigen ble etter krigen en verdifull del av norsk katastrofeberedskap. Man kan konkludere med at NORMASH var en medisinsk og humanitær suksess i dets samtid

List of papers

The following papers are part of the thesis:

Paper one
Lockertsen, J.-Th., Fause, Å., Hallett C. E., Brooks, J. (2015). The Norwegian Mobile Army Surgical Hospital: Nursing at the front. In: Brooks, J. & Hallett, C. E. (eds.), *One Hundred Years of Wartime Nursing Practices, 1854 – 1953.* Manchester: Manchester University Press. pp. 232–253.

Paper two
Lockertsen, J.-Th., Fause, Å., Hallett, C. E. (2020). The Norwegian Mobile Army Surgical Hospital in the Korean War (1951-1954): Military Hospital or Humanitarian "Sanctuary?". *Nursing History Review* 28, pp. 93–126. http://dx.doi.org/10.1891/1062-8061.28.93

Paper three.
Lockertsen, J.-Th., Fause, Å. (2018). The nursing legacy of the Korea Sisters. *Nursing Open*, 2018 (5). pp. 94–100. https://doi.org/10.1002/nop2.11

Preface

I am a theatre nurse with a general interest in history. This interest led me to write a master's thesis on the development of theatre nursing at Troms and Tromsø Hospital in Norway (1895–1974). It was while I was looking for sources and informants that I first learnt that Norway had operated a field hospital during the Korean War. A colleague of mine said she remembered Sister Ragnhild,[1] the head nurse at the operating theatre from 1955 to 1965 and added that "she had been in Korea".[2] I was surprised to learn that Norway actually operated a surgical field hospital there during the Korean War.

Later the same day, I had luncheon with a nurse anaesthetist, Rigmor Bye Brochman, and told her about my master's thesis. She said: "I had an aunt who lived for nursing. Aunt Ragnhild…." For the second time in one day, I was being told about Ragnhild Strand, this time by her niece.[3] I told her that I had just discovered that her aunt had been in Korea. Brochman had inherited her aunt's photo album. This came to be my first source for this study.

Ragnhild Strand (Kildahl) at NORMASH
Reproduced with the kind permission of Rigmor Bye Brochman

[1] Ragnhild Strand (later Kildahl) served at NORMASH in contingent four, May 1952 to November 1952.
[2] Bockelie, H., R. (2009), interviewed by Jan-Thore Lockertsen in February 2009.
[3] Bye Brochman, R. (2009).

1 Introduction

During the Korean War (1950–1953), the Norwegian Government sent a mobile army surgical hospital (MASH) to support the United Nations (UN) army. In the period from 18 July 1951 to 18 October 1954, a total of 111 nurses and 22 deacons (male nurses) served under the United Nations flag at the Norwegian Mobile Army Surgical Hospital (NORMASH).[4] The history of the Norwegian nurses serving during the Korean War has never been told, neither in Norwegian history nor in the history of nursing. Norway sent field hospitals to several conflicts prior to the Korean War,[5] but no research has been condicted into nursing practice in these combat zones.

The field of investigation in this thesis is the nurses' efforts at NORMASH and the impact of the nurses' experience on Norwegian nursing afterwards.

1.1 Background

1.1.1 The Korean War

The Korean War is often referred to as "the Forgotten War".[6] In US sources, it is a war squeezed in between the Second World War and the war in Vietnam. Historian Melinda L. Pash wrote:

> *More than thirty-six thousand American soldiers ended their wartime tours of duty in Korea this way [shipped home dead] while another 1.8 million returned home alive but alone and shrouded in the same anonymity, the forgotten soldiers of a forgotten war.*[7]

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[4] Paus, B. (ed.). (1955). *Det norske feltsykehus i Korea «NORMASH» 1951–1954.* Oslo: Forsvarets sanitet, pp. 42–43.

[5] These conflicts are as follows: the First Balkan War (1912–1913); the Finnish Civil War (27 January – 15 May 1918); the Second Italo–Ethiopian War (1935–1936); and the Winter War between the Soviet Union and Finland (30 November 1939 – 13 March 1940): Lockertsen, J.-Th., Fause, Åshild and Hallett, Christine E. (2020). The Norwegian Mobile Army Surgical Hospital (NORMASH) in the Korean War (1951–54): Military Hospital or Humanitarian "Sanctuary"? *Nursing History Review,* 28(1), 93–126. https://doi.org/10.1891/1062-8061.28.93

[6] Ness, E. (2016) *The Forgotten War.* Retrieved March 2019 from: eilifness.no: http://eilifness.no/?p=75

[7] Pash, M. L. (2012). *In the Shadow of the Greatest Generation*. New York: New York University Press, p. 1. See also: Sarnecky, M. T. (2001). Army Nurses in 'The Forgotten War'. *American Journal of Nursing,*101(11), 45–49.

In 1910, the Korean peninsula became a Japanese protectorate and thus a Japanese colony. In the Cairo Declaration of 1943, the allied powers of World War II declared that in due course Korea would be free and independent of Japan. In 1945, during the last phase of the war in Asia, Korea was divided into two occupation zones. The border between the Soviet Union's occupation army in the north and US's occupation army in the south was marked by a line in the middle of the country: the 38th parallel.

The great alliance of World War II cracked soon after the victory over Germany and Japan. By 1947, the Cold War was a fact. Korea was not united as planned. By 1948, the two occupation zones had become two states. In the south, the Republic of Korea, or South Korea, was established by the United Nations.[8] In the north, the Democratic People's Republic of Korea, or North Korea, was supported by the Soviet Union.

On 25 June 1950, heavily armoured North Korean troops crossed the 38th parallel and attacked South Korea. In the swift attack, North Korea overran South Korea as far down as the harbour town of Pusan in the south. The United Nation's Security Council condemned North Korea as an aggressor, and by 27 June 1950, it had endorsed a resolution leading to a peace-enforcment action by a United Nations army led by the US.[9]

On 15 September, the UN Army started debarking troops at Inchon, Seoul's harbour town. North Korea was forced to retreat behind the 38th parallel. On 2 October, China intervened in the war. On 7 October, the UN forces crossed the 38th parallel and advanced north. UN forces and Chinese soldiers engaged in their first combat, but the Chinese withdrew. When the UN forces drew closer to the river Yalu, the border between North Korea and China, the Chinese attacked again and forced the UN forces south to the 38th parallel.

By the beginning of 1951, the Chinese attacked again and pushed the UN forces south of the 38th parallel. In a fourth wave of fighting, armies fought from Seoul and up to the 38th parallel. Here the war ended up in static trench warfare that would last for another two years, until the armistice of 27 July 1953. One and a half million soldiers and civilians are believed

[8] Lie, T. (1954). *Syv år for freden*. Oslo: Tiden Norsk Forlag, p. 306.
[9] United Nations Security Council Resolutions. (1950). *Complaint of aggression upon the Republic of Korea S/RES/83*. 27 June 1950.

to have been killed and two and a half million wounded during the active war. In addition, five million people became refugees in their own country.[10]

Korea remains a divided country. No peace treaty followed the armistice of 27 July 1953, and over the subsequent 68 years, there have been occasional skirmishes and shelling along the heavily guarded border between North Korea and South Korea.

1.1.2 Norwegian Aid to Korea

The peace-enforcment action in Korea depended on the willingness of UN members to assist and put personnel behind the UN resolution to stop aggression towards South Korea. The North Korean surprise attack raised awareness in Norway, with questions being asked about why intelligence had failed and whether this attack might indicate the beginnings of communist aggression in the West. With regard to the second question, there was nothing to indicate aggression in the West but, nevertheless, a consequence for Norway was an accelerated rebuilding of the country's army.[11] Norway was in no position to give military assistance as requested in the UN Security Council's resolution 83.

Norway wanted to contribute and stand by the UN Security Council resolution. Norway prepared for aid according to resolution 85, adopted on 31 July 1950: humanitarian aid to the civilians in Korea.[12] The Royal Norwegian Foreign Department requested that the Norwegian Red Cross (NRC) plan and administer a refugee camp in Japan.[13] This was politely turned down by the UN's joint command for Korea. A better solution would be a field hospital.

For the Norwegian Foreign Department, this new request led to the request to plan a surgical hospital for the NRC. It was evident that a surgical hospital would demand higher levels of competence from personnel, as well as more advanced surgical instruments, than would a refugee camp. One advantage of a surgical hospital was that it would provide valuable

[10] Malakasian, C. (2001). *The Korean War, 1950–1953.* Oxford: Osprey Publishing, p. 88.
[11] Njølstad, O. (2008). *Jens Chr. Hauge – Fullt og helt.* Oslo: Aschehoug (W. Nygaard), p. 439. St. prp. no. 122 (1950) Om ekstraordinære tiltak for å øke utbyggingen av Norges forsvarsberedskap.
[12] United Nations. (1950). Security Council Resolutions. Complaint of aggression upon the Republic of Korea S/RES/85, 31 July 1950, p. 6. https://undocs.org/S/RES/85(1950)
[13] Nilssen, R. W. (1952). *Med Røde Kors i Korea*. Stavanger: Misjonsselskapets Forlag.

experience for educated and trained personnel.[14] The human resource requirement was estimated as twelve surgeons and twenty nurses.

Whereas a refugee camp was considered to be humanitarian aid and a contribution to the reconstruction of Korea, a surgical field hospital was not humanitarian aid. For the Ministry of Foreign Affairs, a surgical field hospital was considered to be a contribution to the UN's policing action in Korea. The surgical field hospital was therefore planned as a substitute for sending military forces as part of the policing action and was operated by the NRC, a humanitarian organisation.[15]

The Norwegian nurses who participated in the first contingent of the field hospital were officially under contract with the NRC. The nurses were all committed to a duty of confidentiality in political and military matters, and they were subject to military war laws.[16] By August 1951, after one month of operation in Korea, it was reported to Norwegian authorities that the field hospital was a front hospital in a combatant position; it was more of a state enterprise than a Red Cross enterprise.[17] The NRC operated the hospital until 1 November 1951, when responsibility for operating the hospital was transferred to the Norwegian Armed Forces Medical Services.[18] From that day, the Norwegian field hospital in Korea officially converted from being a humanitarian hospital under the administration of the NRC to being a military hospital administrated by the Norwegian Armed Forces Medical Services.[19]

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[14] Paus, B. (ed.). (1955). Op. cit.
[15] St. prp. no. 25. (1951). *Om tilleggsbevilgninger på statsbudsjettet for budsjettåret 1950–51 under nytt kap 122, Norsk feltlasarett til rådighet for felleskommandoen for de Forente Nasjoners styrker i Korea.* 8 February. https://www.stortinget.no/no/Saker-og-publikasjoner/Stortingsforhandlinger/Lesevisning/?p=1951&paid=2&wid=a&psid=DIVL738&pgid=a_0119
[16] Rekkebo, G.. (1951). *Kontrakt mellom Norges Røde Kors og Gotfred Rekkebo, signert 15 Mai* (Contract between The Norwegian Red Cross and Gotfred Rekkebo, signed 15 May). Private archive of Rannei and Gotfred Rekkebo. Ottestad: Migrasjonsmuseets arkiv.
[17] Den utvidete utenriks- og konstitusjonskomite (The Enlarged Committee on Foreign Affairs and Defence), torsdag 23 August 1951. *Redegjørelse fra forsvarsminister Hauge om å stille norske tropper til rådighet i Korea*, pp. 23–24. https://www.stortinget.no/globalassets/pdf/stortingsarkivet/duuk/1946-1965/510823u.pdf
[18] Florelius, Sten. (1952). *Rapport fra Norges Røde Kors til Utenriksdepartementet om DET NORSKE FELTSYKEHUSET I KOREA*, 20 March 1952. Oslo: Norges Røde Kors.
[19] Den utvidete utenriks- og konstitusjonskomite (The Enlarged Committee on Foreign Affairs and Defence), 23 October 1951. *Utenriksminister Lange og forsvarsminister Hauge om Koreaspørsmålet*, pp. 23–24. https://www.stortinget.no/globalassets/pdf/stortingsarkivet/duuk/1946-1965/511023u.pdf

1.1.3 The Norwegian Mobile Army Surgical Hospital

A MASH was a mobile surgical hospital developed by the US and designed to have 60 beds and four operating tables. It acted as a tactical unit on its own to give forward surgery as close to the front as possible – it was normally located within 15 to 30 kilometres of the front.[20] Patients were meant to receive definitive surgery and have a hospital stay of a maximum of 72 hours before returning to the front or being transported to an evacuation hospital for further treatment.

NORMASH never functioned as a mobile army surgical hospital. The frontline was fixed close to the 38th parallel. NORMASH moved only three times: from Uijongbu to Dongduchon on 2 and 3 October 1951, and once within Dongduchon to a tactically better location.[21] Most of the personnel at NORMASH experienced the hospital as a stationary field hospital. Approximately 9,600 operations were performed, an average of eight operations every day.[22] Of the personnel serving in the seven contingents, 111 were female theatre nurses and nurses, 22 were male nurses (deacons)[23] and 80 were physicians. The rest were administration officers, technical staff and guard soldiers. The most intensive fighting in the war in Korea probably occurred in the areas where Norway maintained its field hospitals and health personnel.

NORMASH was one of six MASHes at the front in Korea. The other five were from the US. Each MASH was intended to serve one division of the army. Because of the shortage of medical services, NORMASH received patients from more than one army division at the section of the frontline along the 38th parallel that was covered by NORMASH.[24] Patients treated at NORMASH represented 21 different nationalities and included both Korean civilians and North Korean and Chinese prisoners of war. The heavy fighting was still

[20] Marble, S. (2012). Forward Surgery and Combat Hospitals: The Origins of the MASH. *Journal of the History of Medicine and Allied Sciences,* 69 (1), 68–100. https://doi.org/10.1093/jhmas/jrs032
[21] Rekkebo, G. (1951). *Femårs dagbok 1947–1951* (Five-year diary 1947–1951). Private archive of Rannei and Gotfred Rekkebo. Ottestad: Migrasjonsmusees arkiv.
[22] Paus, B. (ed.). (1955). Op. cit., p. 68.
[23] Deacons educated before 1948 were, upon request, authorised as nurses following the Nursing Act of 1948, but they had received a more mercantile education than what was provided in schools approved by the Norwegian Nurses Association. (Erikstein, E. (2005). *Diakon Gotfred Rekkebo – heimføding og verdensborgar.* Dalen: Vest-Telemark Prosti, p. 32. Stave, G. (1990). *Mannsmot og tenarsinn.* Oslo: Det Norske Samlaget, pp. 251–258.) Since 1948, deacons have had the same education as all other nurses.
[24] Paus, B. (ed.). (1955). Op. cit., p. 28.

ongoing when the frontline was fixed along the 38th parallel. Among the 12,201 individuals admitted to NORMASH as in-patients before the armistice, 5,326 operations on casualties of war were registered. The total number of in-patients for the whole period was 14,755, including 12,201 prior to the armistice of 27 July 1953. The mortality rate for NORMASH in-patients was 1.2%.[25]

Torstein Dale, General Surgeon of the Norwegian Armed Forces Medical Services, stated in 1963 that during the Korean War, the mortality rate among casualities was 2.5%. There were several factors contributing to that figure: targeted efforts to improve hygienic standards, first aid on the battle front, fast medical evacuation (medevac) and lifesaving surgery at a MASH and further treatment with rehabilitation at a hospital in the rear. Medevac by helicopter is recognised as one of the primary medical advances of the Korean War.[26] The efforts of the nurses at NORMASH made an important contribution to the achievement of treatment and hygienic standards described by the General Surgeon as two of the improvements that led to a mortality rate of 2.5% for the Korean War as a whole.[27]

The nurses at NORMASH were all trained in aseptic procedures and infection prevention at civilian nursing schools in Norway prior to the Korean War.[28] In Korea, they ran a hospital during a war that affected both servicemen and the civilian population, and where the infrastructure was ruined by war. They encountered new technical inventions, such as helicopters that brought casualties directly from the battlefield to the hospital for surgical treatment faster than ever before, thus increasing the survival rate. They experienced trauma receptions with up to 400 patients at a time.

[25] Paus. B. (ed.), pp. 68–69. The mortality rate at NORMASH refers only to hospital in-patients. Evacuation of patients to the rear was meant to occur within 72 hours. Patients treated at NORMASH may have died following their evacuation to the rear.
[26] Dale, T. (ed.). (1963). *Håndbok i sanitetstjeneste for sykepleiersker.* Oslo: Forsvarets sanitet.
[27] The mortality rate recorded at NORMASH during the Korean war is lower than the mortality rate for the war as a whole. (Paus, B. (ed.). (1955). Op. cit., p. 69.)
[28] Marthinsen, M. and Haffner, J. (1941). Pleie ved kirurgiske sykdommer. In: Jervell, A. (ed.) *Lærebok for sykepleiersker*, Vol. 1. Oslo: Fabritius og Sønners Forlag, pp. 253–310. In the revised second edition of 1951, the chapter was revised and expanded by instruction nurse Solveig Bratli. Bratli was a Rockefeller Foundation Fellow in 1950–1951. She was later to be instruction nurse at the NMC in Seoul, South Korea in 1958–1959.

1.2 The Research Questions

The history of the Norwegian nurses' efforts during the Korean War has not previously been investigated. The first aim of this dissertation is to explore and document the nurses' contribution to the operation at NORMASH. The second aim is to highlight the impact that the nurses' efforts had on Norwegian nursing and theatre nursing after the Korean War. The research questions are therefore as follows: what characterised nursing practice at NORMASH, and did the experience of the nurses have any impact on Norwegian nursing and theatre nursing practice after the Korean War?

The dissertation is based on three papers that address the overall aim from different perspectives.

Paper 1:

The aim of this paper was to explore nursing practice at NORMASH.

The research questions were as follows:

- What kind of nursing practice was established to ensure the surgical treatment of casualties, and what efforts were made to maintain high hygienic standards and prevent infection?
- What kind of experience did the nurses have with untrained health workers such as orderlies and Korean civilians as nurse helpers?
- Why were trained, educated theatre nurses needed at NORMASH?

Paper 2:

The aim of this paper was to explore the identity of NORMASH as a mobile army surgical hospital and the nurses' approach to its field hospital status.

The research questions were as follows:

- What kind of hospital was NORMASH? A military hospital? A humanitarian hospital? Or both?

- Was the nurses' approach to their work essentially military or essentially humanitarian in focus?
- In what way did this influence the nurses' practice?

Paper 3:
The aim of the third paper was to explore the legacy of the Korea Sisters' wartime nursing practice for Norwegian nursing after the Korean War.

The research questions were as follows:

- What impact did the nurses' efforts during the Korean War have on the practice of Norwegian nursing following their return to general nursing in Norway?
- In what way were the nurses' efforts in Korea later used to enhance nursing education in Norway?
- In what way were the nurses' efforts subsequently a valuable part of Norwegian disaster preparedness?

1.2.1 Explanation of terms used

Nurses: With the Nursing Act of 1948, nurses who had a uniform three years of education from an authorised educational institution became authorised and registered nurses. In addition, nurses educated at schools approved by the Norwegian Nursing Association (NNA) prior to 1948 were granted authorisation. As of 1948, males were also accepted for education as nurses.[29]

At this time, nurses all underwent long practice in operating theatres over the course of their education in order to learn antiseptic and aseptic procedures and they were also trained to administer simple anaesthesia by dripping ether on a mask.[30]

Theatre nurses: Theatre nursing is a nursing speciality. In the period covered in this dissertation a registered nurse with one year's internal training in an operating theatre at a

[29] Melby, K. (1990). *Kall og kamp – Norsk Sykepleierforbunds historie.* Oslo: J. W. Cappelens Forlag A.S., pp. 194–199.
[30] Marthinsen, M. and Haffner, J. (1941). Arbeidet i operasjonsstuen [Nursing in the operation theatre]. In: Jervell Anton (ed.) *Lærebok for sykepleiersker*, bind 1. Oslo: Fabritius og Sønners Forlag A/S, p. 236.

municipal hospital or two years' internal training at a Red Cross Hospital was a specialist nurse in theatre nursing: a theatre nurse.[31] Until 1974, theatre nurses were cross-trained in anaesthesia.[32]

Deacons: Until 1949, Det norske Diakonhjem was the only place where males could be educated as nurses. An education as a deacon was ecclesiastical in nature, with a somewhat reduced level of nursing education, and was aimed more at social work.[33] Deacons who applied for authorisation after 1948 were authorised as nurses. In this dissertation I have used the terms "deacon" for "male nurse". Twenty-two deacons served at NORMASH.

Head Nurse: "Head nurse" refers to the matron at NORMASH, who was responsible for managing and leading the nursing service for the whole hospital. In this dissertation I have spelt the position title with a capitalised H and N.

Leading theatre nurse: As a consequence of their specialised nursing, operating theatres had their own head nurse who was responsible for the nursing service in the operating theatre. The Norwegian tradition is to use titles such as "head nurse", "first theatre nurse" and "leading theatre nurse". In this dissertation I have used "leading theatre nurse" for the avoidance of confusion with the matron, whose title at NORMASH was "head nurse".

In the primary sources used for this dissertation, the main term used for nurses at NORMASH is "nurses". Only when referring directly to nursing in the operating theatre are terms such as "theatre nurse" or "specialist nurse" used.[34]

[31] Ordrop, E. (1953). Hva ligger i uttrykket spesialutdannet sykepleier? Skriv fra og til Helsedirektoratet. *Tidsskriftet Sykepleien,* 19(41). Oslo: Norsk Sykepleierforbund, pp. 587–589.
[32] Lockertsen, J-Th. (2019). *Operasjonssykepleie ved Troms og Tromsø sykehus, 1895–1974.* Master's thesis in health science. Tromsø: Universitet i Tromsø.
[33] Stave, G. (1990). *Mannsmot og tenarsinn.* Oslo: Det Norske Samlaget, pp. 201–205.
[34] Andresen, R. (1955). Sykepleiersker. In: Paus, B. (ed.), *Det norske feltsykehus i Korea «NORMASH» 1951-1954.* Oslo: Forsvarets sanitet, pp. 79–82.

1.3 Previous Research

1.3.1 The impact of research on wartime nursing

Modern nursing is inextricably linked to Florence Nightingale and her efforts in 1854–1855 during the Crimean War.[35] Nurses' competence and skills are tried during wartime, when practice expands and changes.[36] Nurse historian Quincela Brunk claims that much of our understanding of the development of today's nursing can be traced to nurses' efforts and experiences in armed conflicts.[37]

Internationally, wartime nursing is a growing research field. Nurses' experiences have been researched by both nurse historians and historians with an interest in nursing and gender history.[38] In Norway there is also a growing interest in research on wartime nursing.[39]

1.3.2 Norwegian research on NORMASH

As previously stated, nursing at NORMASH is absent from Norwegian nursing research. Nor is nursing at NORMASH mentioned in the NRC's own histories from 1965 and 2014, even though the nurses in the first contingent were Red Cross nurses under contract with the NRC.[40] The first nurse historian in Norway, Ingrid Wyller, mentions Korea only in *Sykepleiens historie i Norge*. Her nursing history book was first published in 1951 and edited

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[35] Taylor, E. (2001). *Wartime Nurse: One Hundred Years from the Crimea to Korea 1854–1954*. London: Robert Hale Ltd.
[36] Helmstadter, C. (2015). Class, gender and professional expertise: British military nursing in the Crimean War. Brooks, J. and Hallett, Ch. E. (eds.), *One Hundred Years of Wartime Nursing Practices, 1854–1953.* Manchester: Manchester University Press, pp. 23–41.
[37] Brunk, Q. (1997). Nursing at War: Catalyst for Change. *Annual Review of Nursing Research,* 15, 217–236. Palmer, P. N. (1991). Wars leave indelible marks on the nursing profession. *AORN Journal,* 53(3), 657–658.
[38] McEwen, Y. (2014). *In the Company of Nurses.* Edinburgh: Edinburgh University Press. Hallett, Ch. E. (2014). *Veiled Warriors: Allied Nurses of the First World War*. Oxford: Oxford University Press. Vuic, K. D. (2010). *Officer, Nurse, Woman: The Army Nurse Corps in the Vietnam War.* Baltimore: Johns Hopkins University Press. Sarnecky, M. T. (1999). *A History of the U.S. Army Nurse Corps.* Philadelphia: University of Pennsylvania Press.
[39] Immonen, I. (2013). Nursing during World War II: Finnmark County, Northern Norway. *International Journal of Circumpolare Health,* 72. https://doi.org/10.3402/ijch.v72i0.20278
Gogstad, A. Chr. (1991). *Helse og hakekors.* Bergen: Alma Mater Forlag AS, pp. 151–170.
[40] Sæter, M. (1965). *Over alle grenser: Norges Røde Kors 100 år*. Oslo: Aschehoug, p. 215.
Mageli, E. (2012). *Med rett til å hjelpe. Historien om Norges Røde Kors.* Oslo: Pax Forlag A/S.

in 1990. Interestingly enough, since its fifth printing in 1964, the book has opened with a photograph of Inger Rode receiving the Korea Medal from King Olav of Norway in October 1955.[41]

There is, however, Norwegian research on surgical practice at NORMASH. Research has also been conducted on the official Norwegian Korea policy between 1946 and 1953.

Dr Bernard Paus (a medical doctor) participated in the planning of the Norwegian Field Hospital in Korea. He served two periods as a surgeon at NORMASH, in contingents one and five. Paus wrote two medical articles about the field hospital, both in 1954, shortly after Paus's second mission at NORMASH. Paus does not discuss nursing practice.

In Paus's first article, he discusses shock and the treatment of wounds with delayed primary suture. The low infection rate experienced after a treatment with wound debridement and delayed primary suture should, in his professional opinion, be discussed for possible use in trauma surgery in peacetime. Having an educated and trained team that includes surgeons, an anaesthesiologist and theatre nurses, as well as auxiliary health-care workers, is essential for medical success.[42]

In Paus's second article, the role of advanced forward field hospitals in lifesaving surgery is discussed. Field hospitals need to be close to the battlefield and have specialist personnel in order to fulfil their mission. The closest that the female nurses serving during the Korean War got to the battlefield was in MASHes within 15 to 30 kilometres of the frontline. The MASHes used in Korea were designed to have capacity for 60 in-patients, which could be doubled or tripled if needed.[43] Nursing practice is not discussed in this article.

In 1954, Erling Falsen Hjort, Surgeon and Chief of Hospital at NORMASH contingent three, wrote a case report on nineteen abdominal war injuries he had operated on at NORMASH between May 1952 and November 1952. In his material, he provides statistical information on age, mortality and cause of the injury – e.g. gun shot, mine, grenade or traffic accident. Three

[41] Wyller, I. (1990). *Sykepleiens historie i Norge.* Oslo: Gyldendal Norsk Forlag, p. 8.
[42] Paus, B. (1954). Kirurgiske erfaringer fra Det norske feltsykehuset i Korea. *Nordisk Medicin,* 51(11), 384–388.
[43] Paus, B. (1954). Medisinsk liv ved den koreanske krigsskueplass. *Tidsskrift for Den Norske Lægeforening*, Vol. 74 (1). pp. 10–15.

of his patients were Korean children under the age of sixteen. Abdominal war injuries are time-consuming and have a significant association with infection in the peritoneal cavity and shock caused by internal haemorrhage. The survival rate among the cases in his report was 80%.[44]

Historian Kjetil Skogrand's master thesis from 1994 aims to analyse Norway's official policies on the conflict in Korea.[45] Two chapters are dedicated to the Norwegian contribution to the UN Army: the field hospital.[46] Skogrand points out that NORMASH started out as a civilian endeavour and became a fully armed and integrated part of the US Army but without military status.[47] The Norwegian nurses were commended by the US Army. Skogrand states that the Norwegian nurses were carefully selected and that they were all volunteers, unlike the US nurses, who were drafted.[48]

1.3.3 International research on nursing during the Korean War

Nurse historian Q. Brunk claims that analytical research on the role of nursing during the Korean War is lacking.[49] This claim was made in 1997, but it remains partly true twenty years later. Little research has been carried out on theatre nursing at the five US field hospitals that operated in the Korean War.

According to the research by nurse historian Mary T. Sarnecky on "the forgotten war", two things are notable in the development of US nursing during the Korean War: a shortage of trained theatre nurses and an expanding nursing practice.[50] US Army nurses were the first nurses to be deployed to the combat zone.[51] With casualties from heavy fighting and a shortage of nurses, and the nurse's practice was expanded by penicillin therapy and the introduction of blood transfusions. On the other hand, a scarcity of resources led to the reduced use of sterile equipment such as gowns, gloves, masks and caps during minor

[44] Hjort, E. F. (1954). Abdominale krigsskader – Erfaringer fra Det norske feltsykehus i Korea. *Tidsskrift for Den Norske Lægeforening*, Vol. 74 (19), 611–616.
[45] Skogrand, K. (1994). *Norge og Koreaspørsmålet 1945–1953.* Master's thesis. Oslo: Universitetet i Oslo, p. 2.
[46] Ibid., pp. 145–195.
[47] Ibid., p. 155.
[48] Ibid., p. 193.
[49] Brunk, Q. (1997). Op. cit., pp. 229, 217–236.
[50] Sarnecky, M. T. (2001). Army Nurse in 'The Forgotten War'. *American Journal of Nursing,* 101(11), 45–49.
[51] Sarnecky, M. T. (1999). *A History of the U.S. Army Nurse Corps.* Philadelphia: University of Pennsylvania Press, pp. 279–320.

surgery. The demobilisation of trained nurses after the Second World War led to the use of enlisted men to do the nurses' tasks without their having had previous training. These enlisted men were supervised and taught by nurses.[52] Sarnecky does not refer to Norway among the countries that provided health care during the Korean War.[53]

All three Scandinavian countries participated by providing health care. Denmark contributed the hospital ship Jutlandia, and Sweden contributed an evacuation hospital in Pusan. The Danish and Swedish hospitals were both civilian Red Cross hospitals and were located far from the front. Both hospitals had to achieve a balance between humanitarian and military objectives in order to remain Red Cross hospitals.[54] Norway's contribution was of a different character: it was a frontline hospital and, as such, it was the equivalent of the US MASHes. It was an independent Norwegian unit but militarily subject to the Eighth US Army of Korea (EUSAK).[55]

Norwegian nurses visiting Danish nurses at the Danish hospital ship Jutlandia

Reproduced with the kind permission of Rigmor Bye Brochman

[52] Ibid., pp. 305–306.
[53] Ibid., p. 317.
[54] Midtgaard, K. K. N. (2003). Historien om hospitalskibet Jutlandia. *Siden Saxo,* 4, 16–25. Midtgaard, K. K. N. (2001). *Jutlandia-ekspedition. Tilblivelse og virke 1950–53.* København: DUPI. Östberg, S. Su-gun. (2014). The Swedish Red Cross Hospital in Busan 1950–1958: A Study of Its Transition from a Military to a Civilian Hospital. *Korean Journal,* 54(1), 133–-156. This article is a shortened version of Östberg's thesis: *Svenska Röda Korset-sjukhuset i Pusan 1950-58. Kandidatuppsats i koreanska*, Stockholm: Stockholms universitet (2012). http://koreanska.se/wp-content/uploads/2018/04/Svenska-sjukhuset-i-Pusan-1950-58-Sigfrid-Östberg-1.pdf
[55] Paus, B. (ed.). (1955). Op. cit., pp. 27–28.

In the article by Deborah L. Hallquist, she discusses the expansion of nursing practice and the use of operating room technicians in the role of scrub nurse assisting the surgeon. A distinctive change also occurred with regard to where nurses were able to serve. The mobility of the field hospitals brought the hospitals closer to the battlefield, and nurses therefore came closer to combat than had been common in previous wars. The shortage of trained theatre nurses was the main reason for operating room technicians (ORTs) being used in the role of scrub nurse in the operating team.[56]

John Patrick Apel's PhD dissertation discusses a US MASH from the first half of the Korean War. In this period there was a rapid turnover in US MASHes. A shortage of personnel trained in military medicine and military ways was characteristic of US MASHes. Innovations in surgery, the treatment of shock, after loss of blood, helicopter evacuation and the use of antibiotics featured in the medical work. Apel does not discuss nursing practice, but nurses are highly present in his dissertation, living the same war as the doctors and working with them in the operation theatre. Apel's own father, Otto F. Apel, Jr., is one of his informants, and he has included an appendix with cases on the treatment of vascular injuries that comes from his father.[57]

Albert Cowdry in his article discusses the real MASH vs the sitcom M*A*S*H.[58] The general perception of a MASH and the Korean War has been formed by the situation comedy M*A*S*H based on Richard Hooker's novel from 1968.[59] Although there are similarities, Cowdry draws a picture of the real MASH as a highly sophisticated hospital that went through many changes. The nurses' role at the MASHes is not highlighted, however.

Several articles have been written about developments in MASH, such as medical evacuation by helicopter and medical advancements during the war. Although these articles do not relate

[56] Hallquist, D. L. (2005). Development in the RN first assistant role during the Korean War. *AORN Journal,* 82(4), 644–647.
[57] Apel, J. P. (1998). *A Window of Opportunity: A History of the Mobile Army Surgical Hospital in the First Half of the Korean War.* PhD Dissertation. Hattiesburg: University of Southern Mississippi.
[58] Cowdry, A. E. (1985). MASH vs M*A*S*H: The Mobile Army Surgical Hospital. *Medical Heritage Jan/Feb*, 1(1), 4–11.
[59] Hooker, R. (1968). *MASH: A Novel About Three Army Doctors.* New York: HarperCollinsPublishers.

to nursing, they do document the shortages of nurses and make us aware that nurses are also part of the medical history of the Korean War.[60]

UN and Red Cross health care during the Korean War consisted of not only frontline hospitals such as the MASHes, but also medics in pre-hospital treatment, as well as evacuation hospitals, hospital ships and the work of flight nurses. Studies have been conducted on nursing on hospital ships and in evacuation hospitals behind the front.[61]

[60] Marble, S. (2014). Forward Surgery and Combat Hospitals: The Origins of the MASH. *Journal of the History of Medicine*, 69, 68–100. https://doi.org/10.1093/jhmas/jrs032 King, B. and Jatoi, I. (2005). The Mobile Army Surgical Hospital (MASH): A Military and Surgical Legacy. *Journal of the National Medical Association,* 97(5), 648–656. Woodard, Scott C. (2003). The Story of the Mobile Army Surgical Hospital. *Military Medicine,* 168, 503–513. Driscoll, Robert S. (2001). U.S. Army Medical Helicopters in the Korean War. *Military Medicine,* 166(April), 290–296. Anderton, G. (1953). The Birth of the British Commonwealth Division, Korea. *Journal of the Royal Army Medical Corps,* 99(2), 43–54.

[61] Dahl, M. (2015). Moving Forward: Australian flight nurses in the Korean War. In: Brooks, J. and Hallett, Chr. E. (ed.) *One Hundred Years of Wartime Nursing Practices, 1854–1953*, pp. 254–277. Cowdrey, A. E. (2005). *The Medics' War.* Honolulu: University Press of the Pacific. Taylor, E. (2001). Ibid. Omori, F-. (2000). *Quiet Heroes. Navy Nurses of the Korean War 1950–1953. Far East Command.* St. Paul, MN: Smith House Press.

2 Theoretical framework

2.1 Norwegian Nursing Traditions

In order to explore the efforts of Norwegian nurses at NORMASH and analyse the impact of their mission afterwards, this chapter will present a theoretical framework based upon both Norwegian and international professional nursing traditions. Historical research is inductive, and theoretical perspectives are described as empirical data that either supports or undermines the hypothesis.[62] In this dissertation, the hypothesis is that the efforts of the nurses during the Korean War led to changes in clinical practice in Norwegian nursing and theatre nursing.

The discipline of nursing has a long tradition, both nationally and internationally. Scholarly hospital nursing in Norway dates to 1868, when the deaconess Cathinka Guldberg established the first training for nurses at Diakonissehuset in Norway. This training for nurses had its roots in the Deaconess Institue of Kaiserwerth, , and links to the Florence Nightingale training model.[63] The education of nurses at Diakonissehuset was the sole education for nurses in Norway for almost thirty years, until humanitarian organisations such as the Red Cross and the Norwegian Women's Public Health Association and municipal hospitals began educating nurses in the last decade of the 19th century.[64] Norwegian nursing education was internationally oriented in terms of both nursing knowledge and the leading of nursing, with teachers and leaders often being educated abroad, as in the case of Marie Joys, who was educated as a nurse and trained as a theatre nurse in Berlin in 1892–1897, and Camilla Struve, who was educated as a nurse in Edinburgh in 1896–1899.[65]

While the function of taking care of the sick and injured has always been performed, and the history of skilled nursing dates back at least 150 years in Norway, internationally the history of nursing may date as far back as the 17th century in Southern Europe.[66] Through these years

[62] Myhre, J. E. (2014). *Historie. En introduksjon til grunnlagsproblemer.* Oslo: Pax Forlag A/S, pp. 14–15.
[63] Nissen, R. (2000) [1877]. *Lærebog i Sygepleie.* Oslo: Gyldendal Akademiske, pp. preface, 26, 96–97.
[64] Mathisen, J. (2006). *Sykepleiehistorie*, 2. utgave. [Nursing history] Oslo: Gyldendal Norsk Forlag AS, pp. 124–131.
[65] Joys, M. (1948). *Erindringer.* Oslo: Forlaget av Cammermeyers Boghandel. Melby, K. (1990). *Kall og kamp - Norsk Sykepleierforbunds historie.* Oslo: J.W. Cappelens Forlag A.S., pp. 29–31.
[66] Jones, C. (1989). *The Charitable Imperative: Hospitals and Nursing in Ancient Rome and Revolutionary France*. London/New York: Routledge, pp.113–117.

of effort, nursing knowledge and clinical practice evolved and several professional traditions in nursing, which include both the clinical practice and the knowledge that professional nursing are based upon, also grew. In this dissertation, professional nursing traditions are understood as knowledge that is developed over time and expressed in clinical practice as perspectives, competences and principles, nursing efforts and nursing techniques, and which is often assumed in nursing textbooks. [67]

Professional knowledge develops over time, and the history of nursing indicates that nursing has been important to the population and for individual security both in times of peace and when wars and epidemics strike, but this has not always been expressed clearly nor emphasised as significant.[68] As today's scientific knowledge is reckoned as being on a higher level of the scale than experience-based knowledge, yesterday's practice is often seen as old-fashioned and out of date; we are accustomed to understanding tradition as being in opposition to, and contrasted with, modernity.

According to the philosopher Hans-Georg Gadamer, tradition and modernity are not opposed to each other but complementary of each other.[69] We need to know traditions in order analyse the nursing practice of the past and identify changes; otherwise we are at the mercy of myth and cliché. At the same time as nursing was being established as a profession in Northern Europe, many myths grew up about nurses and their profession, which served to cast a veil over nursing as a field of knowledge and community service.[70] If one examines how societal needs have driven the development of the nursing profession, the work of nurses in wars, epidemics and surgical treatment provide a realistic image of the importance of nursing in the context of new health challenges.

Nurses did not leave many sources of which we know. The knowledge base has been perpetuated mainly through clinical practice. Therefore, in order to rediscover the traditions, one must explore nursing practice. Close study of practice and experience today makes significant contributions to our professional understanding and professional knowledge, as do

[67] Fause, Å. (2017). Om fagtradisjoner og sykepleiehistorie som forskningsfelt. In: Fause, Å. (ed.), *Glimt fra sykepleiefagets historie*. Bergen: Fagbokforlaget, pp. 17–23. Mathisen, J. (2012). Op. cit. Boschma, G., Davidson, L. and Bonnifacio, N. (2009). Op. cit. Adriansen, K. K. (2015). Op. cit.
[68] Fause, Å. (2017). Op. cit.
[69] Gadamer, H-G. (2010). *Sannhet og metode.* Oslo: Pax Forlag A/S, pp. 318–319.
[70] Fause, Å. (2017). Op. cit.

historical analyses. Exploring nursing practice, whether in a Norwegian hospital or at NORMASH, is vital in order to highlight the knowledge base in its continuity and change and its strong roots in a centuries-old tradition. By exploring what the nurses did at NORMASH, how they dealt with challenges that occurred there and how nursing practice developed or changed after the Korean War, one may find that some things are antiquated and dismissed them as not being good practice, while other things are kept and new knowledge is incorporated and continued.[71]

Historical research is inductive, and a historical theory can be described as empirical data that provides a summary description of a historical course.[72] In this dissertation, three nursing traditions will be highlighted within the systematic work and syntheses of the empirical data.[73] The first is nursing leadership in hospitals, the second is cooperation and interaction between nursing and medicine and the last is wartime nursing.

2.1.1 Nursing leadership in hospitals

In Norway, nursing became an independent discipline with its own leaders at all levels in the latter part of the 19th century. Over the next hundred years, nurses in Norway held leading positions and, together with their superiors, they were responsible for the operation of the wards.[74]

Running a hospital has always required the management of personnel and patient logistics along with the nursing staff required to take care of the patients and the equipment needed to do so. Educating leaders was a priority for the NNA. As early as 1925, the NNA's Postgraduate School of Nursing (Fortsettelsesskolen) offered courses in administration and the teaching of nurses.[75] According to nurse historian Sigrun Hvalvik, the idea was to increase the competence of nurses in charge, such as matrons and head nurses, so that they could lead their own "discipline, teaching and public health work" (translated by JTL).[76] The principle

[71] Gadamer, H-G. (2010). Op. cit., pp. 318–322.
[72] Sejersted, Francis. (1993). En teori om de økonomiske og teknologiske utvikling i Norge i det 19. århundre. In: *Demokratisk kapitalisme.* Oslo: Universitetsforlaget AS, pp. 47–106.
[73] Kaldal, I. (2003). *Historisk forskning, forståing og forteljing.* Oslo: Det Norske Samlaget, p. 130.
[74] Austgard, K. and Hovland, B-. (2017). *Rikke Nissen. I kamp og kjærlighet.* Oslo: Verbum Forlang, pp. 130–131. Elstad, I. (2014). *Sjukepleietenking.* Oslo: Gyldendal Akademisk, p. 178. The principles whereby nurses are leaders of their own discipline changed during the 1990s.
[75] Melby, K. (1990). *Kall og kamp.* J.W. Cappelens Forlag A.S., pp. 90–97.
[76] Hvalvik, Si.. (2005). *Bergljot Larsson og den moderne sykepleien.* Oslo: Akribe, p. 251.

of having educated nurses as leaders of their own discipline and administrators of hospitals' daily nursing, and in charge of the teaching of nurses, was highly esteemed.[77]

According sociologist Torunn Hamran's study of a hospital's nursing culture, running a hospital requires skills in both administration and nursing practice. The nurse(s) in charge, such as the matron and head nurse, must have an overview of the department(s) and of each patient. Routines must be established to provide personal knowledge of the individual patients. Food needs to be distributed and caring must be planned for each patient in accordance with professional nursing standards.[78]

Marie Joys is an example of a head nurse from the beginning of the twentieth century who adhered to the Norwegian tradition of leading and managing nursing. Every other year she would travel abroad to study new surgical techniques, technological inventions and constructions of operating theatres and hospitals, knowledge which she later implemented in the nursing at Haukeland in Bergen. As she wrote in her memoir, "I had to keep up with the development in nursing, and there was always much to see and to learn" (translated by JTL).[79]

Running a hospital has always required the administration of personnel and of patient logistics and of the nursing staff required to take care of patients and the equipment needed to do so. With the advent of the modern hospital, the leading nurse, either the head nurse or the matron, was in a prominent and powerful position, not only as the individual in charge of the hospital's nursing resources and logistics, but also as a close partner of the head doctor. The principle whereby nurses are the leaders in their own profession and the administrators of the hospital's daily nursing, and thus its operation, has been maintained.[80]

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[77] Sykepleien. (1950). Oversøsteransettelsen ved Rikshospitalet, Kirurgisk avdeling b. *Tidsskriftet Sykepleien,* Vol 37 (6), pp. 70-71. In 1950, the nurses from a surgical department at the National Hospital resigned when a nurse without an education in administration and teaching from the NNA's College for Further Education was employed as head.
[78] Hamran, T. (1992). *Pleiekulturen – en utfordring til den teknologiske tenkemåten.* Oslo: Gyldendal Norsk Forlag A/S, pp. 52–53.
[79] Joys, M. (1948). Op. cit., pp. 74, 74–76.
[80] Martinsen, K. (1984). Op. cit., p. 181. Andrea, A. (1926). Innledning. In: Grøn, Kr. and Widerøe, S. *Lærebok i sykepleien.* Oslo: H. Aschehoug & Co. (W. Nygaard), pp. 1–9.

2.1.2 Interaction and cooperation between nursing and medicine in theatre nursing

As mentioned above, skilled European nursing has been around a lot longer than clinical medicine. According to historian Colin Jones, Catholic nursing communities in the early 17th century functioned as independent medical practitioners.[81] When doctors first appeared in hospitals, nurses had already been there for a long time. There were no sharp boundaries between caring (nursing) and curing (medical treatment), and sometimes good nursing was all that could be prescribed by a physician.[82] Nurses were leading and running hospitals long before clinical medicine appeared in hospitals; they were not merely performing an assisting function for physicians.

The discovery and use of anaesthesia in 1846 and Josephs Lister's introduction of antiseptic in surgery in 1867 are the fundaments of modern surgery.[83] The ability to master pain and prevent post-operative infection enabled surgeons to perform more complex surgical procedures and save the limbs and lives of patients.[84] As modern surgery entered the bacteriological era, the discovery of the microorganisms that cause disease permitted the development of a deeper understanding of how to prevent contagious disease and how to cure it.

Following the advent of modern surgery in the 1870s and the bacteriological era in the 1880s, nursing knowledge took on a new dimension of medical knowledge that expanded their nursing role. Nurses were given a new function in hospital whereby their responsibility was expanded and they assumed the new role of theatre nurse. Trained nurses had a key role in the development of modern surgery.[85] As nurses had learnt and were practising hygiene skills before Lister published his antiseptic method in 1867, nurses were given responsibility for providing antiseptic equipment and made responsible for the operation theatre environment. From the 1890s, this responsibility evolved into providing aseptic equipment and ensuring

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[81] Jones, C. (1989). *The Charitable Imperative: Hospitals and Nursing in Ancient Rome and Revolutionary France*. London/New York: Routledge, pp.113–117.
[82] Mathisen, J. (2006). Op. cit., p. 41.
[83] Snow, S. J. (2018). Surgery and Anaesthesia: Revolutions in Practice. In: Schlich, T. (ed.) *The Palgrave Handbook of the History of Surgery.* London: Palgrave Macmillan UK, pp.195–214. https://doi.org/10.1057/978-1-349-95260-1_10 Fitzharris, L. (2017). *The Butchering Art.* London: Penguin Random House UK.
[84] Wall, R. and Hallett, Chr. E. (2018). Nursing and Surgery: Professionalisation, Education and Innovation. In: Schlich, Thomas (ed.) *The Palgrave Handbook of the History of Surgery.* London: Palgrave Macmillan UK, pp. 153, 153–174. https://doi.org/10.1057/978-1-349-95260-1_8
[85] Martinsen, K. (1984). *Freidige og uforsagte diakonisser.* Oslo: Aschehoug/Tanum-Norli, pp. 152–153.

that the operation theatre environment was aseptic.[86] The medical success brought about by the opportunity to prevent infection required nurses who not only understood how to maintain aseptic environments during surgical interventions[87] but who also understood the vulnerability of human beings undergoing surgery and were able to care for them at this time when the body could no longer maintain its self-regulation and preservation, and who also had knowledge of anatomy, pathology and pathophysiology.[88]

After preoperative preparation of the patient for surgery and the provisioning of sterile instruments and linen for use during surgery, there was teamwork with the surgeon. Theatre nurses trained to care for the patient during an operation and to assist surgeons during surgical interventions.[89] Assisting a surgeon during a surgical intervention was an active role, not a spectator role. The theatre nurse had to know every instrument and the operative procedure in order to take part as an assistant. In the teamwork between surgeon and theatre nurse, they were supposed to be like "one thinking organism" (quotation translated by JTL).[90]

Observing the sick and analysing and identifying changes in their condition and acting upon these are practical skills and are considered the most crucial feature of nursing.[91] Surgical patients require attentive post-operative nursing and continuous nursing observation. Observing and monitoring patients in order to report to the physician and implement nursing intervention were important skills, as it was the nurses who cared for patients around the clock.[92]

With the growth in the number of operations, it wasn't possible for surgical nurses to maintain both pre- and post-operative patient responsibility. Beginning in 1920, nursing in the operation theatre was mostly separated from other types of nursing on surgical wards and

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[86] Lockertsen, J.-Th. (2009). Op. cit. Joys, M. (1947). *Erindringer.* Oslo: Calmeyers Boghandel.
[87] Waage, H. R. (1906). *Lærebok i sykepleie* (4th edition). Kristiania: H. Aschehoug & Co, p. 203.
[88] Wall, R. and Hallett, Ch. E. (2018). Nursing and Surgery: Professionalisation, Education and Innovation. In: Schlich, T. (ed.). *The Palgrave Handbook of the History of Surgery.* London: Palgrave Macmillian, pp. 153–174. https://doi.org/10.1057/978-1-349-95260-1_8 Schlich, T. (2018). Introduction: What is Special about the History of Surgery? In: Schlich, T. (ed.) *The Palgrave Handbook of the History of Surgery.* London: Palgrave Macmillian, pp. 1–24. https://doi.org/10.1057/978-1-349-95260-1_1
[89] Joys, M. (1948). *Erindringer.* Oslo: Cammermeyers Boghandel, p. 40.
[90] Widerøe, S. (1926). Op. cit., pp. 113, 112–113.
[91] Nissen, R. (2000) [1877]. Op. cit., pp. 189–190. (Nissen quotes Florence Nightingale and Marie Simon on observations.) Nightingale, F. (1997). *Notater om sykepleien.* Oslo: Universitetsforlaget, pp. 149–169
[92] Nissen, R. (2000) [1877]. Op. cit., pp. 188–196. Helmstadter, C. (2020). *Beyond Nightingale.* Manchester: Manchester University Press, p.120.

theatre nursing became a speciality in nursing with internal training at the hospital. Theatre nurses were all cross-trained in anaesthesia. Although the nursing speciality was called theatre nursing, theatre nurses were both theatre nurses and nurse anaesthetists.[93]

Florence Nightingale's team of nurses at Scutari Hospital in 1854 during the Crimean War (1853–1856) are known to have improved sanitary conditions and thus reduced mortality within the cholera-infested army. Lesser known is that the nurses performed rather advanced nursing and most of them were highly competent clinical nurses skilled in hospital and surgical nursing.[94]

The Norwegian deaconess Rikke Nissen wrote the first textbook on nursing in 1877.[95] In this textbook, Nissen states that the aim is to provide theoretical and practical training in nursing that would make nurses complete nurses and not half physicians.[96] Nursing was an independent discipline and complementary to that of the physician.[97]

We find the functionality and architecture of the operating theatre first articulated by Nightingale. The operating theatre should ideally be in a separate location but with easy access from other wards, and preferably with a recovery room for patients who have been newly operated on. It should be oriented so as to be well illuminated by the sun but so as not to get too hot.[98] In addition, an operating theatre needed to be easy to clean and disinfect and should be free of unnecessary equipment.[99]

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[93] Backer-Grøndahl, N. (1926). *Narkose og pleie av operationspatienter.* Oslo: Grøndahl & Søns Boktrykkeri, p. 4. Lockertsen, J.-Th. (2009). Op. cit.

[94] Helmstadter, C. (2020). Op. cit., pp. 61–79. Helmstadter, C. (2015). Class, gender and professional expertise: British military nursing in the Crimean War. In: Brooks, J. and Hallet. Ch. E. (eds) *One Hundred Years of Wartime Nursing Practices, 1854-1953.* Manchester: Manchester University Press, pp. 23–41.

[95] Her theoretical foundation was textbooks in nursing, such as Florence Nightingale's *Notes on Nursing*, Florence Lees' *Handbuch für Krankenpflegerinnen* and Marie Simon's *Die krankenpflege, theoretische and praktische Anweisungen*, in addition to contemporary textbooks on medical science and midwifery.[95]

[96] Nissen, R. (2000) [1877]. Op. cit., pp. 19–21.

[97] Austgard, K. and Hovland, B. (2017). Op. cit., pp. 130–131.

[98] Florence N. (2012) [1863]. Notes on Hospital 3rd edition, p. 147. In: McDonald, L. (ed.) *Collected Works of Florence Nightingale,* 16. London: Wilfrid Laurier University Press.

[99] Widerøe, S. (1926). Om arbeidet på operasjonsstuen. In: Grøn, Kr. and Widerøe, S. (ed) *Lærebok i sykepleien.* Oslo: H. Aschehoug & Co. (W. Nygaard), p. 111. Marthinsen, M. and Hafner J. (1941). Arbeidet i operasjonsavdelingen. [Nursing at hte operation theatre] In: Jervell, A. (ed.) *Lærebok for sykepleiersker* Bind 1. Oslo: Fabritius og Sønners Forlag, p. 224. Lockertsen, Jan-Thore. (2009). Op. cit., pp. 29–30.

2.1.3 Wartime nursing

Nursing in wartime is inextricably linked to the nurse Florence Nightingale and her brand of nursing in Scutari during the Crimean War (1853–1856). The tradition of wartime nursing depends on the country in question. In England and the US, both of which had been involved in overseas military campaigns and wars, the professional army nursing corps was established in 1901 in USA and 1902 in Great-Britain.[100] Norway had no experience of war between the commencement of scholarly nursing in Norway and the Nazi occupation of Norway in 1940. Instead, Norwegian charitable organisations received government grants for educating nurses as part of Norwegian readiness in the event of catastrophe or war.[101] Nurses who worked with the army in the years prior to 1940 were civilians and had no career opportunities in the armed forces.

Nurses from the charitable organisations were not obliged to serve in conflict areas outside of Norway; the tradition of participating with surgical ambulances (field hospitals) in conflict areas where Norway was a neutral party nevertheless evolved. Between 1912 and 1940, Norwegian charitable organisations endowed four different humanitarian missions to conflict areas outside of Norway with ambulances.[102] These ambulances were initially meant for the warring parties, and as the ambulances were neutral, both parties to the conflict were offered humanitarian aid. An important lesson learnt, however, was that an ambulance in war must also take responsibility for civilians and not only combatant soldiers.[103]

Nurses' first experience of war within Norway came with the occupation of Norway by Nazi Germany (9 April 1940 to 8 May 1945). Nurses in Norway experienced a total war that affected the whole of society, and not only in terms of supply shortages and worn-out equipment as a consequence of the occupation. Nazi Germany requisitioned wards in hospitals and sometimes entire hospitals for their own use.[104] Nurses continued serving in the

[100] Sarnecky, M. T. (1999). Op. cit., p. 50.
Taylor, E. (2001). *Wartime Nurse.* London: Robert Hale Limited. p. 55.
[101] Lockertsen, Fause and Hallett. (2020). The Norwegian Mobile Army Surgical Hospital in the Korean War (1951-1954): Military Hospital or Humanitarian "Sanctuary?" *Nursing History Review, 28*, 93–126.
[102] Ibid., p. 98 (The First Balkan War (1912–1913); The Finnish Civil War (27 January 1918 – 15 May 1918); the Second Italo-Ethiopian War (1935–1936); The Winter War between Finland and Soviet Union (30 November 1939 – 13 March 1940).
[103] Ulland, G. (1936). *Under Geneferkorset i Etiopia – Med den norske ambulanse.* Oslo: H. Aschehoug & Co. (W. Nygaard), pp. 37–55.
[104] Fause, Å. (2002). Sykepleie under okkupasjonen. (bokforf.) [Nursing during the occupation]Fause, Åshild and Micaelsen, Anne (ed). *Et fag i kamp for livet. Sykepleiens historie i Norge.* Bergen: Fagbokforlaget Vigmostad & Bjørke AS, pp. 197–212.

requestioned wards and hospitals, caring for enemy soldiers as well as for civilians.[105] Epidemic diseases affected both enemy soldiers and civilians.[106] Norwegian nurses were also familiar with the bloodier side of war, as civilian hospitals were bombed by the enemy[107] and the nurses cared for civilian casualties of friendly fire by allies.[108]

[105] Semb, G. (2012). Oral story.
[106] Svane, S. (2000). Hjelpeaksjonen under paratyfoid A-epidemien i Kirkenes 1943-44. *Tidsskriftet Den Norske Legeforening*, 120(30), 3688-92. (Edle Ruden, a nurse at NORMASH in contingent six (November 1953 to May 1954), participated in this expediton of nurses and physicians travelling from Oslo to Kirkenes.)
[107] Karlsen, Aa. Sigrid Bugge – Organist og sykepleier. (Arkiv i Nordland.) (Bugge was head nurse at NORMASH contingent 5 from May to November 1953.
[108] Årdalsbakke, I. (2010). Oral story.

3 Sources and Methods

This historical research project starts like all research projects by identifying disparate sources and an academic approach for selecting and establishing the reliability of sources.[112] Searching for significant sources and establishing the reliability of the sources found and then choosing which sources to use in historical research is a laborious, non-linear process.[113] Given the increasing digitalisation of sources and the use of oral sources, new sources can be found throughout the research process.[114]

Sources can be categorised as primary and secondary sources. Primary sources include first-hand accounts such as eyewitness testimony, written diaries, letters, reports, photos and autobiography, as well as oral sources.[115] According to Norwegian historical research tradition, primary sources belong to two subcategories depending on their use. An eyewitness written account of an incident/happening is a *beretning* in Norwegian (the literal translation in English is "narrative" or "story") and is treated as a primary source for the happening by the researcher. It may also have a function as a source that contextualises, in which case it is a *levning* in Norwegian (or, translated literally into English, a "remnant" or "artifact").[116] In addition to primary sources such as eyewitnesses and so on (*beretning*), textbooks and biographical lexica can serve as functional sources and be used as primary sources that contextualise (*levning*) nurses' education and theatre nursing practice.[117]

Secondary sources are sources built on primary sources or sources written about the subject. If the historical source of a secondary source is missing, the closest secondary source is

[112] Duffin, J. (2010). Sleuthing and Science: How to Research a Question in Medical History. In: Duffin, J. (ed.) *History of Medicine: A Scandalously Short Introduction* (2nd edition). Canada: University of Toronto Press, pp. 428–447.
[113] Hvalvik, S. (2010). Historisk forskning og sykepleie. *Klinisk Sygepleje,* 24(4), 31–41.
[114] Andresen, A., Rosland, S., Ryymin, T. and Skålevåg, S. A. (2015). *Å gripe fortida*. Oslo: Det Norske Samlaget, pp. 43–62. Tosh, J. (2015). Op. cit., pp. 71–97.
[115] Kjeldstadi, K. (1999). Op. cit., pp. 177–178. Lewenson, S. B. (2008). Doing Historical Research. In: Lewenson and Herrmann (ed.) *Capturing Nursing History.* New York: Springer Publishing Company, pp. 25–43.
[116] Hatlen, J. F. (2020). *Historikerens kode.* Oslo: Universitetsforlaget, p. 48. Kjeldstadli, K. (1999). Op. cit., pp. 173–174.
[117] Melve, L. (2018). Kildekritikk – en kort historikk. In: Melve and Ryymin (ed.) *Historikerens arbeidsmåter.* Oslo: Universitetsforlaget, pp. 39, 35–43.

considered a primary source.[118] Books of memoir may contain both primary and secondary material.[119] And a categorisation as primary and secondary sources is complicated and cannot be fully accomplished.[120]

Diverse sources have been used in this dissertation. Archival material, printed sources, oral sources, textbooks, contemporary periodicals, newspapers and photos are among the sources used. Following a review and evaluation of the sources chosen, I will provide a résumé of the methods I have used in my research. Source criticism (evaluation of sources), together with an interrogaton of sources to establish reliability and the questions they can answer in relation to other sources, is a method in itself, but other methods – or approaches – have also been used.[121] In historical research, the expression "method pluralism" is used. A strict and formalised method is not always used. Sometimes, as in this dissertation, several methods are used and combined in systematic work with the sources.[122]

3.1 Positioning of myself as researcher

There is a perquisite to the "nurse historian", the historian is a nurse and knows the tools of the nursing trade in one of its many disciplines. I am a registered nurse specialised in theatre nursing: a theatre nurse. My background will always be with me, so the question will always be raised as to whether I can maintain a critical distance from theatre nursing at NORMASH in order to analyse practice. But my background in the tradition of Norwegian theatre nursing can be an advantage.[123] No Norwegian studies of nursing practice at NORMASH have ever been carried out, and there is little written material that we know by Norwegian nurses about their nursing practice during the Korean War. When exploring nursing practice in general, one finds oneself in the same position as other nurse historians: if you look carefully enough, you will find signs of practice,[124] although at times finding sources may require a mix of sleuthing and science. Practice itself is often passed along through the demonstration of

[118] Kjeldstadli, K. (1999). Op. cit., p. 178.
[119] Examples will be given in the review of the secondary sources used in this dissertation.
[120] Tosh, J. (2015). *The Pursuit of History* (6th edition). New York: Routledge, p. 74.
[121] Kaldal, I. (2003). Op. cit., p. 31. Sandmo, E. (2015). *Tid for historie.* Oslo: Universitetsforlaget, p. 124.
[122] Andresen, A. et al. (2015). Op. cit., p. 118. Melve, L. and Ryymin, T. (2018). Op. cit., p. 29.
[123] Gadamer, H-G. (2003) [1953]. Op. cit., pp. 10–11.
[124] Hallett, Ch. E. (2017). *Nurses of Passchendaele.* Barnsley: Pen & Sword History, p. XV. Boschma, G., Scaia, M-, Bonifacio, N. and Roberts, E.. (2008). Oral History Research. In: Lewenson and Herrmann (ed.) *Capturing Nursing History.* New York: Springer, pp. 79, 83, 79–98.

procedures.[125] We can write about practice and we can demonstrate practical knowledge with our hands, but we cannot write practice.[126]

How then can the nursing perspective be addressed in research? Philosopher Jakob Meløe addresses the question of how to understand what an actor is doing by using the analogy of observing a game of chess. Our understanding of what the actors are doing in the game presupposes an understanding of the rules of the game and concepts such as king, queen and bishop and how these pieces can be moved around on the board. This creates a community of practice with the actors (players) and helps us understand what they are doing. If we write down the chess moves and analyse them, we can learn more and sharpen our observation of what's happening in the community of practice.[127] Being a registered nurse and theatre nurse can be a gateway to identifying clinical nursing and theatre nursing practice in the empirical data from the different sources used, but it also requires being open to having a limited understanding and an openness for others' experiences.[128]

3.2 Primary Sources Used

The archive for NORMASH is Forsvarets sanitet, RAFA-3422 Det norske feltsykehuset i Korea (RAFA-3422 The Norwegian Army's Medical Services: The Norwegian Field Hospital in Korea), which has been an important source.[129] The archive contains correspondence and case documents regarding the establishment and organisation of the field hospital in Korea. At the end of every month, reports on the daily operations of the hospital were provided from both the medical chief, who was also the hospital chief, and the administration officer, who was the military chief. Instructions for the head nurse at NORMASH can be found together with the curriculum for the training of orderlies, which shows the heavy work that nurses did to be ready for rushes and to make the hospital operational. The need for educated and trained nurses to make the hospital function is emphasised throughout the period of 1951 to 1954. The reports include the care of Korean civilians as well as operations at civilian hospitals in Seoul when it was quiet at the front and nursing outreach following the armistice of July 1953. Reports from the administration officer, who was a military chief, relate to military

[125] Kjeldstadli, K. (1999). Ibid, p. 194.
[126] Elstad, I. (2014). Ibid, p. 209.
[127] Meløe, J. (1983). *Om å se.* Unpublished. http://www.jakobmeloe.com/publications/
[128] Gadamer, H-G. (2010). *Sannhet og metode.* Pax Forlag A/S, pp. 338–345.
[129] Part of the material is clauses. The clauses material is not connected to nursing.

matters such as military readiness, morale and discipline and the daily running of the supporting departments of the hospital.

There are three reports from nurses in the archive. Ruth Andresen, matron-in-chief for the Norwegian Army Medical Services, also served as Head Nurse of the hospital in contingent three (May to November 1952). Her report is concerned with the daily operation of the nursing service. Andresen addresses changeover of staff, staffing plans, plans for the evacuation of the hospital and the Korean civilian patients at NORMASH. Most of the staff at NORMASH changed over at the same time, which lowered operativity for a period. Whereas the nurses were well qualified, the orderlies lacked basic nursing knowledge. NORMASH was too permanent to be called "mobile", and evacuation had revealed deficiencies. Latrines were not established on the first day, which was a hygienic problem, and boxes with equipment for the holding and post-operative wards were insufficiently labelled.[127]

The leading theatre nurse in the operation theatre, Harda Hartvigsen, served at NORMASH in contingent two (November 1951 to May 1952). The nursing of and work among Korean civilians is the subject of her report. She provides an overview of Korea's history and plans for a university college to reconstruct Korea's own health-care system after the war. Hartvigsen describes the rescue chain from the front, including the administration of medical treatment of shock needed before admission at the MASH, as well as the value of early life-saving surgery. Her work in the operation theatre brought her into contact with soldiers who were anxious about their future and about their comrades, and POWs without any knowledge of English. Anxiety over disease, pain, the future and operations were emotions she was well accustomed to as a theatre nurse back home. Hartvigsen also tells us about napalm bombing and accidents with petrol, and about the time-consuming task of debriding and cleaning burns.[128]

Head Nurse Inga Stamnes Heide served as leading theatre nurse in the operation theatre in contingent six (November 1953 to May 1954) before serving as Head Nurse for the whole

[127] Andresen, R. (1952). *Noen bemerkninger fra Oversøster ved Nor MASH, angaaende:* ____ (Some remarks from the head nurse at NORMASH regarding: ____). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.
[128] Hartvigsen, H. (1954). *Det norske feltsykehuset i Korea og dets arbeid blandt sivilbefolkningen* (The Norwegian field hospital in Korea and its work among the civilian population). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.

hospital in contingent seven until NORMASH closed down in November 1954. Heide analyses the nursing competence needed for every department at NORMASH. Being a good nurse in a regular hospital does not mean that you will be a good nurse in a field hospital. She recommends that anti-militarists not serve at a military field hospital.[129] She also points out the hidden work of nurses, such as organising the emptying of latrines, washing cutlery and the economic utilisation of food and hospital equipment, before going on to describe a workday as head nurse and the importance of having first-hand knowledge of patient flow at the hospital and available resources in order to plan patient care. Heide does not comment on any particular episodes at NORMASH, and her report can also be viewed as a letter describing her suggestions for how the nursing service at a field hospital should be organised based on her experiences after a year in leading positions at NORMASH.[130]

There are also letters of a more informal character from nurses to "Dear Sister Ruth" (Matron-in-Chief Major Ruth Andresen), who had her office and working place in Oslo, Norway.[131] Nurses wrote to her about their daily life at NORMASH and their happiness and worries there. They wrote about how happy they were to be able to help Chinese POWs and to speak the Chinese language again,[132] about plans to go to the US on their way home in order to study and observe American nursing[133] and about organising aid for children,[134] as well as to say thank you for a Christmas gift and express their concern at the many cases of tuberculosis in the samples analysed in the laboratory.[135] The letters do not use a professional or military title: they were written to "Sister Ruth".

Privatarkiv Rannei og Gotfred Rekkebo (Private Archive of Rannei and Gotfred Rekkebo) is the only known private archive of a nurse who served at NORMASH. Rekkebo was educated

[129] During I. H. Stamnes's period as head nurse at NORMASH, some nurses refused to attend roll call after night duty – see Lockertsen, Fause and Hallett. (2020). Op. cit.
[130] Heide, I. S. (1955). *Brev/rapport fra Søster Inga Heide til Sjefssøster Andressen (sic!) FSAN,* av 15 mai 1955 (Letter/report from Sister Inga Heide to Matron-in-Chief Andressen (sic!) FSAN of 15 May 1955). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.
[131] The previously mentioned period when the matron-in-chief served as Head Nurse for NORMASH was Andresen's only visit to Korea and NORMASH.
[132] Haarvik, O. (1951). *Brev til Søster Ruth av 29 september* (Letter to Sister Ruth of 29 September). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.
[133] Western, G. (1951) *Brev til Søster Ruth av 13 september* (Letter to Sister Ruth of 13 September). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.
[134] Nilssen, E. (1953). *Brev til sjefssøster av 23 mars, Forsvarets sanitet* (Letter to the Matron-in-Chief). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.
[135] Stafsnes, I. (1953). *Brev til Søster Ruth av 20 mars* (Letter to Sister Ruth of 20 March). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.

as a deacon in 1937 and registered as a nurse in 1948, when males were accepted as nurses in Norway. He served at NORMASH with contingent one (May to November 1951). For most of his life, Rekkebo kept a diary where he wrote four lines every day. The diary for the years 1947 to 1951 contains descriptions of his stay in Korea. In addition, he made scrapbooks where he collected contemporary articles about his time at NORMASH.[139] In 1955, Gotfred Rekkebo and his wife Rannei moved to South Korea, where they lived and worked actively until 1972, assisting in the reconstruction of South Korea's health-care system after the Korean War. During "the Korea years" he kept in touch with some of the Korean civilians he had come to know during his stay at NORMASH.[140]

Enquiries with the NRC and the Norwegian Army Medical Services, as well as the Norwegian Korean War Veterans Association, have not revealed any other documents that can shed light on Norwegian nursing during the Korean War.

The official printed report *Det norske feltsykehus i Korea "NORMASH" 1951-1954* has been an important source in this study as it provides the frameworks for the running of NORMASH and assisted with the search for other sources. The report is subtitled "Generell del" ("the General Part") and was published as a 100-page pamphlet edited by Bernhard Paus. Paus served as a surgeon in contingent one (May to November 1951) and contingent five (May to November 1953) at NORMASH. He was serving as medical chief for the Norwegian Armed Forces Medical Services in 1955 when this report was published. In addition to this official report which has given us key figures, a more specific medical report was supposed to have been made. No such report has been found in any open sources or archive. If such a report was made, access may have been restricted. The official report contains no study of practice.[141] The various parts of the official report about NORMASH were written contemporarily by participants who handled their own discipline. I have therefore counted the official report as a primary source.[142]

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[139] Rekkebo, Go. (1951). *5-års dagbok 1947–1951 (Five-year diary 1947–1951).* Private archive of Rannei and Gotfred Rekkebo. Ottestad: Migrasjonsmuseets arkiv. In 1955 G. Rekkebo and his wife Rannei moved to South Korea, where they lived and worked actively until 1972, assisting in the reconstruction of South Korea's health-care system after the Korean War. During "the Korea years" he kept in touch with some of the Korean civilians he had come to know during his stay at NORMASH. Eriksten, Eilev. (2005). *Diakon Gotfred Rekkebo – heimføding og verdensborgar.* Dalen: Prostidiakonatet i Vest-Telemark prosti.
[140] Eriksten, E. (2005). *Diakon Gotfred Rekkebo – heimføding og verdensborgar.* Dalen: Prostidiakonatet i Vest-Telemark prosti.
[141] Paus, B. (ed.). (1955). Op. cit.
[142] Kjeldstadli, K. (1999). *Fortida er ikke hva den en gang var* (2nd edition). Oslo: Universitetsforlaget, pp. 177–178. Tosh, J. (2015). *The Pursuit of History* (6th edition). New York: Routledge, pp. 74–75.

Oral sources are also a primary source of this thesis. While English textbooks on research and nursing research use the term "oral history", Norwegian researchers tend to use the term "oral source". Knut Kjeldstadli argues in his textbook introducing historical thinking and methods that "oral history" is not history, but people's memories and stories as told in interviews.[143] My informants consisted of five nurses and one anaesthesiologist. The nurses were Gerd Semb, who served with contingent one (May to November 1951), Kari Roll Klepstad, who served with contingent six (November 1953 to May 1954), Inga Årdalsbakke, who also served with contingent six, and Margot Isaksen, also with contingent six, as well as Peder Klingsheim, a deacon and male nurse who served with contingent four (May to November 1952). The anaesthesiologist was Bjørn Lind, who served with contingent three (May to November 1952) and contingent seven (May to November 1954). Of the nurses, only Margot Isaksen was a trained theatre nurse, but Inga Årdalsbakke also served in the operation theatre when needed due to workload or because the trained theatre nurses were exhausted.

Other published Norwegian books used as primary sources include *Fjellet med de fallende blomster* by Lars Bakke Asbjørnsen. Asbjørnsen was chaplain and welfare officer at NORMASH in contingent two (November 1951 to May 1952). His book was published in 1952, when NORMASH was still an active unit. As chaplain and welfare officer, he met patients from England, Canada and Australia in the capacity of counselor. Neither nurses nor nursing are themes, but Asbjørnsen provides a glimpse of important nursing practices, including the reception of nervous patients at pre-op and nurses containing patients' emotional trauma.[144]

Kaare Gulbransen participated in contingent one (May to November 1951). In his autobiography there is one chapter about his stay at NORMASH. Gulbransen's picturesque story provides a snapshot in time of a Korea ravaged by war and of the hard work at NORMASH where nurses and surgeons worked day and night. Gulbransen participated in three different ambulances (Ethiopia 1936, Finland 1940 and NORMASH). Although it is not found in any official archive, a source for the documentary *NORMASH. Det norske feltsykehuset i Korea 1951–1954* (see chapter 3.3 on secondary sources) says that he left

[143] Kjeldstadli, K. (1990). Op. cit., pp. 192–193. Grove, K. and Heiret, J. (2018). Å arbeide med munnlege kjelder. In: Melve and Ryymin (ed.) *Historikerenes arbeidsmåter.* Oslo: Universitetsforlaget, pp. 123, 122–147.
[144] Asbjørnsen, L. B. (1952). *Fjellet med de fallende blomster.* Oslo: Forlaget Land og Kirke, pp. 12–13.

NORMASH in protest when its administration was transferred from the Red Cross to the Norwegian Army Medical Services.[145]

"Norsk feltsykehus i Korea" is a chapter in Ruth Andresen's book *Fra norsk sanitets historie*. Andresen was matron-in-chief in the Norwegian Armed Forces Medical Services from 1946 to 1976 and served as head nurse at NORMASH with contingent three (May to November 1952). After her retirement from the army, she wrote a history of women's efforts in military nursing. Her history is valuable for its details on how Norwegian nurses started educating Korean nurses and on the Norwegian nurses' outreach practice that started caring for Korean civilians in their homes.[146]

Koreasoldat 1953 by Per Øverland contains travel letters to the newspaper *Romsdals Budstikke* and to Øverland's parents during his time as an orderly at NORMASH with contingent five (May to November 1953). This autobiography also includes a section with Øverland's letters to his son beginning in 1990. According to Øverland, this is a book of letters that reflect his service in Korea as it happened and his reflections nearly 40 years afterwards.[147]

A chapter in the autobiography of former orderly Olav Sandvik is titled "Norwegian Mobile Army Surgical Hospital – NorMASH". Sandvik was studying veterinary medicine when he volunteered as a guard soldier at NORMASH, where he served with contingent two (November 1951 to May 1952). He worked primarily as an orderly and aided in the operation theatre at NORMASH. He had taken courses in veterinarian surgery and understood the principles of aseptic and antiseptic procedures. Insight into theatre nursing practice is provided in his accounts of tasks that the theatre nurses taught him. One detail he gives in his narrative is that it had been necessary for him to get accustomed to the patients' physical and mental trauma brought about by the war.[148]

[145] Gulbransen, K. (1956). Stille ved den 38. breddegrad. *Gull og grønne skoger.* Bergen: J. W. Eides Forlag, pp. 392–403.
[146] Andresen, R. (1986). *Fra norsk sanitets historie: Kvinners innsats i militær sykepleie.* NKS-Forlaget, pp. 103–108.
[147] Øverland, Per. (2008). *Koreasoldat 1953.* Trondheim: Forlag 90936 Per Øverland.
[148] Sandvik, O. (2012). *Skjebnespill. Fra Kvinnherad til veterinærvesenets innside.* Oslo: Norsk Veterinærhistorisk Selskap, pp. 56, 49–62.

In 1960, Athene Forlag published a two-volume encyclopaedia, *Norske sykepleiere, Bind 1 og 2*, with biographical information on the majority of Norwegian nurses. This work was accomplished with the assistance of the Norwegian Nursing Association and the various Norwegian educational institutions for nursing. It was endorsed by the NNA before publication. The nurses contributed information themselves. Using this encyclopaedia, it is possible to map the education, work experience and study and stays abroad up to 1960 for almost every nurse who served at NORMASH.[149] Since the nurses themselves provided all the information on education and nursing practice, I regard this encyclopaedia as a primary source.

Nursing textbooks that were used between 1920 and 1967 are used as primary sources *levning* in this study.[150] Textbooks are normative and give insights into basic knowledge for theatre nurses and what shaped theatre nurses' professional culture.[151] In the period studied here, the same textbooks were used for training nurses and for training theatre nurses. The theoretical foundation for practice for theatre nurses was the same as that for nurses without training in theatre nursing. The main difference is the practical knowledge acquired through the specific training for theatre nurses. The textbooks contextualise the nursing practice at NORMASH in Korea and during the years afterwards.[152] The textbooks used for this dissertation are *Lærebok i Sykepleien* from 1926[153] and *Lærebok for sykepleiersker* from 1941 and its revised edition of 1951[154] and the third edition of *Lærebok for sykepleiere* from 1962.[155]

The periodical of the Norwegian Nursing Association (NNA), *Tidsskriftet Sykepleien*, for the years 1951 to 1970 has been examined for articles related to the mission in Korea with NORMASH (1951–1954) and the National Medical Center (Det Skandinaviske

[149] Straume, J. B. (ed.). (1960). *Norske sykepleiere*, volumes I and II. Oslo: Athene Forlag.
[150] Fause, Å. (2017). Op. cit., p. 22.
[151] Mathisen, J. (2012). Teoriundervisning i sykepleiefagets pionertid. *Sykepleien Forskning*, 2(7), 142–150. Boschma, G., Davidson, L. and Bonnifacio, N. (2009). Bertha Harmer's 1922 textbook – The Principles and Practice of Nursing: clinical nursing from an historical perspective. *Journal of Clinical Nursing*, 18, 2684–2691. doi: 10.1111/j.1365-2702.2009.02891.x. Adriansen, K. K. (2015) *Et kvinneyrke tar form: Sykepleie i Rogaland 1870–1970.* PhD dissertation. Bergen: University of Bergen.
[152] Hatlen, J. F. (2020). Op. cit., p. 48. Kjeldstadli, K. (1990). Op. cit., pp. 170–172.
[153] Grøn, Kr. and Widerøe, Sofus. (1926). *Lærebok i sykepleien.* Oslo: H. Aschehoug & Co (W. Nygaard).
[154] Marthinsen, M. and Haffner, J. (1941). Pleie ved kirurgiske sykdommer. In: Jervell, A. (ed.) *Lærebok for sykepleiersker*, Vol. 1. Oslo: Fabritius og Sønners Forlag, pp. 253–310. In the revised second edition of 1951, the chapter was revised and expanded by instruction nurse Solveig Bratli. Bratli was a Rockefeller Foundation Fellow in 1950–1951. She was later to be instruction nurse at the NMC in Seoul, South Korea, in 1958–1959. (Straume, Johan B. (1960). *Norske sykepleiere,* Vol. 1. Oslo: Athene Forlag, p. 129.)
[155] Olaussen, Tor. (1962). Kirugisk sykepleie. In: Jervell, A. (ed.) *Lærebok for sykepleiere,* Vol. 5. Oslo: Fabritius & Sønners Forlag, pp. 43–66.

undervisningssykehus i Korea) (1958–1968). Contemporary newspapers have to some degree been used. The newspaper *Aftenposten* has been digitalised and was searched for relevant articles about the Korean War, "det norske feltsykehuset i Korea" and NORMASH. Clippings in scrapsbooks found in Rannei and Gotfred Rekkebos' private archive indicate that the Korean War was covered in several newspapers and magazines that have not yet been digitalised and include both reportage and travel letters from those with involvement in NORMASH.[156]

Two articles by Bernhard Paus and one by Erling Falsen Hjort published in medical periodicals have been used as primary sources (levning). They are discussed in chapter 1.3.2. (on Norwegian research on NORMASH). These three articles are not about nursing practice, but they do provide context and show us that theatre nurses were valued members of the well-educated operating teams.

At the time of the Korean War, the use of photos and film by war correspondents was a long-established part of their journalism. After a mission in Korea, war correspondent Albert Henrik Mohn wrote *Rød taifun over Korea* in which photos were used to illustrate the horrors of the war.[157] Private use of photos has been common since the Second World War. Many took cameras with them to Korea and documented their trip and daily life at NORMASH. Some of the pictures have been published in books of memoirs,[158] and some have been digitalised and can be searched on the Internet.[159]

3.3 Secondary Sources

The memoirs used in this dissertation are in the grey area between secondary and primary sources. Some of the material has been reused from other sources while other material consists of autobiographical texts not found elsewhere, so a clear demarcation line between

[156] I have used relevant articles here. I considered it inexpedient to search manually through newspapers and magazines for this dissertation.
[157] Mohn, A. H. (1951). *Rød taifun over Korea.* Oslo: Gyldendal Forlag, pp. 64, 65, 95, 96, 143, 144. Norwegian IP addresses can search and read the book online at Nasjonalbiblioteket, https://www.NB.no.
[158] Bakke, F. (2010). *NORMASH Korea i våre hjerter.* Oslo: Norwegian Korean War Veterans Association, pp. I–XXIX.
[159] The Municipal Archive of Trondheim has published Inger Schulstad's photos. https://www.flickr.com/photos/trondheim_byarkiv/albums/72157647401564923/page1

secondary and primary sources can hardly be set for the books *Norge I Korea* and *NORMASH: Korea i våre hjerter* (see below).[160]

Norge i Korea is by Lorentz Ulrik Pedersen. Pedersen was chaplain at NORMASH in contingent five (May to November 1953). His book was written for the forty-year anniversary of NORMASH. The book is not only about NORMASH, it is also a history about the start of the Korean War and Norwegian efforts in Korea after the Korean War.[161] As such, it is a secondary source. Other parts include contemporary articles and speeches,[162] as well as the memories of participants written in retrospect.[163] In this respect, it is a primary source.[164] Pedersen's book is a primary source for X-ray sister Unni Foss, who wrote down her memories shortly after her service in Korea.[165] According to Gerd Semb, Unni Foss's diary from Korea was donated to a museum after her death. I have not been able to locate the diary.[166] In his book, Pedersen has provided a full list of all the participants and their military rank at NORMASH. He has also included the surnames of females in brackets if their surname changed due to marriage or divorce.[167]

In 2010, the Norwegian Korean War Veterans Association published its own book of memoir, *NORMASH: Korea i våre hjerter*.[168] No nurses contributed to the book. Veterans from the military part of NORMASH contributed excerpts from their personal diaries and letters they sent home during the Korean War.[169] As the book contains pictures and excerpts from diaries written by soldiers during the Korean War, it is a primary source that contextualises

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[160] Tosh, J. (2015). Op. cit., pp. 74–75.
[161] Pedersen, L. U. (1991). *Norge i Korea.* Oslo: Huitfeldt Forlag A.S.
[162] Semb, C. (1991) [1952]. Fra sanitetstjenesten i Korea. In: Pedersen, L. U. (ed.) *Norge i Korea*. Oslo: Huitfeldt Forlag A.S, pp. 76–82. This was a speech given by Semb in Oslo Militære Samfund (7 January 1952).
[163] Hjort, E. F. (1991). Fra det norske feltsykehus i Korea. In: Pedersen, L. U. (ed.). Op. cit., pp. 86–89.
[164] Kjeldstadli, K. (1999). Op. cit., p. 178.
[165] Foss, U. (1991). Over til Korea. In Pedersen, L. U. (ed.) *Norge i Korea.* Oslo: Huitfeldt Forlag A.S., pp. 49–53.
[166] Unni Foss, Petra Drabløs and Gerd Semb knew each other from the Norwegian Constabulary Force in Sweden in 1944 and from the field hospital in Finnmark from February to October 1945. They then served together at NORMASH with contingent one (May to November 1951). According to Gerd Semb, Semb donated Unni Foss's diary from Korea to a museum after Foss died. I have not been able to locate the diary.
[167] Pedersen, L. U. (1991). *Norge I Korea – Norsk innsats under Koreakrigen og senere.* Oslo: Huitfeldt Forlag A.S., pp. 183–188.
[168] Bakke, F. (ed.). (2010). *NORMASH: Korea i våre hjerter.* Oslo: Norwegian Korean War Veterans Association.
[169] Fjære, A. (2010). Vaktsoldat i NORMASH. In: Bakke F. (ed.) Ibid., pp. 21–25. Egelien, N. (2010). Dagbok fra en vaktsoldat, desember 1952. In: Bakke, F. (ed.) Ibid., pp. 26–30. Imislund, Tor J. (2010). Motorpoolen. In: Bakke, F. (ed.) Ibid., pp. 31–33. Randby, D. (2010). Fra en elektrikers dagbok. In: Bakke, F. (ed.) Ibid., pp. 34–36. Randby's original diary was donated to the War Museum in Tongduchon, South Korea.
Øverland, P. (2010). Et brev til de der hjemme. In: Bakke, F. (ed.) Ibid., p. 37.

NORMASH from the soldiers' point of view, but as no nurses participated in it, it is a secondary source with regard to nursing practice.[170] This book also contains a full list of all the participants at NORMASH together with their function (theatre nurse, nurse, surgeon, etc.).[171]

Historian Kjetil Skogrand's master's thesis, which analyses Norway's official policies with regard to Korea during the period 1945–1953, has been used as a secondary source. His master's thesis is discussed in chapter 1.3.2. (on Norwegian research on NORMASH).

NORMASH. Det norske feltsykehuset i Korea 1951–1954 is a documentary produced by Forsvarets Mediesenter. In this documentary, Norwegian veterans are interviewed about their experiences in Korea. The brutality of the Korean War is illustrated with original reports from the Korean War. The good relations with the Korean people and the efforts to care for the children and to create a university hospital to help rebuild the Korean health-care system are highlighted. The experience that the Norwegian Army gained from this first Norwegian UN mission is highlighted as well. One nurse, Inga Årdalsbakke, who is a source by way of her oral history, was also interviewed in this documentary.[172] I consider this a secondary source as the perspectives have been chosen by the creators of the documentary.

3.4 Methods

3.4.1 Source criticism

History is based on sources, and historians need to take a critical and reflective view of sources used. "History literacy" can be described as the use of source criticism to evaluate sources used and is considered by some to be the "method" of history research.[173] Searching for and choosing sources and establishing the authenticity and reliability of sources used is accomplished by interrogating the sources. When were they produced and by whom?

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[170] Kjeldstadli, K. (1999). Op. cit., pp. 178–179. Tosh, John. (2015). *The Pursuit of History* (6th edition). New York: Routledge, pp. 74–75.
[171] Bakke, F. (ed). 2010. Op. cit., pp. 88–93.
[172] Forsvarets Mediesenter. (2010). *NORMASH Det norske feltsykehuset i Korea 1951–54.* Enstad-Karlsen, R. and Segelcke, T. (direction). This film is now available at YouTube.com through the Norwegian Army's historical film archives, Forsvarets Historiske Filmarkiv. https://forsvaret.no/aktuelt/forsvarets-historiske-filmarkiv (29.09.20)
[173] Kaldal, I. (2003). *Historisk forskning, forståing og forteljing.* Oslo: Det Norske Samlaget, p. 31.

For which purpose have they been produced? Is this a primary source a *beretning* or *levning?*[174] Close reading of the text with a focus on language and argumentation are also a part of source criticism.[175] Furthermore, are the sources used relevant to the research question(s)?[176] Are there other sources confirming the same?[177] Source criticism is used on all sources but is often associated with the study of documents and archive material.

Archives are described as a "collective memory".[178] Working with the interpretation of textual data in documents is an important approach and working method for a historian, and leads to questions about what to search for, where to search and how to use raw material.[179] What is found in people's "collective memory" and how can one make it talk? Numbers and information in a document are silent; this is not history that speaks. It is the historian who asks questions and interprets the data so as to elucidate the research question who makes the documents talk and tells the history.[180] Primary sources such as documents may be used to answer different questions depending on the historian and the historian's research questions.[181] The use of a source and how it is interpreted can always be questioned.[182] Kaare Gulbransen was involved in the first contingent at NORMASH. In his autobiography, he wrote that the official report told its "part of the history in statistical numbers. But it didn't tell the whole story" (quotation translated by JTL). The story of the surgeons' and nurses' hard work days and nights under difficult circumstances was not told.[183]

An example of Gulbransen's words about official reports don't tell the whole story can be found in a case study of surgery and the story of the same by the same surgeon. Surgeon Erling Hjort reported in 1954 of abdominal war wounds during his stay as chief of hospital in

[174] Knutsen, Paul. (2018). Gjensyn med spørsmålet om metode. *Norsk filosofisk tidsskrift*, Vol. 53 (4). pp. 196-208. https://doi.org/10.18261/issn.1504-2901-2018-04-03
[175] Hatlen, J. F. (2020). Op. cit., pp. 50–51. Melve, L. and Ryymin, T. (2018). Valg av kildematerialer, arbeidsmåte og tilnærming. In: Melve and Ryymin (ed.). *Historikernes arbeidsmåter.* Oslo: Universitetsforlaget, pp. 26–33. Kjeldstadli, K. (1999). *Fortida er ikke hva den en gang var.* Oslo: Universitetsforlaget, pp. 171–175.
[176] Melve, L. (2018). Kildekritikk – en kort historikk. In: Melve and Ryymin (ed.) *Historikernes arbeidsmåter.* Oslo: Universitetsforlaget, pp. 35–43.
[177] Kjeldstadli, K. (1999). Op. cit., p. 178.
[178] Kjeldstadli, K. (1999). Op. cit., p. 154.
[179] Hallett, Ch. E. (2008). "The Truth About the Past?" The Art of Working with Archival Materials. In: Lewenson, S. B. and Herrmann, E. Kr. (ed.) *Capturing Nursing History.* New York: Springer, pp.149–158.
[180] Kaldal, I. (2003). *Historisk forskning, forståing og forteljing.* Oslo: Det Norske Samlaget, pp. 64–68.
[181] Tosh, J. (2015). Op. cit., p. 111.
[182] Hallett, Ch. E. (2008). Op. cit., p. 155.
[183] Gulbransen, K. (1956). *Gull og grønne skoger.* Bergen: J. W. Eides Forlag, p. 398.

1952. A case report of hemorrhage on the eighth post-operative day is short and clinical.[181] The same case related as a story shows a more dramatic incident and a quick reaction by the operating team.[182] The patient's father later sent a letter to Haakon King of Norway to express his and his son's gratitude.[183]

There is less published and archival material that we know of relating to nurses than to physicians.[184] Nurses have passed on their profession to one another more as a community of practice than through writing.[185] They have not had the same tradition as midwives in Norway of sharing cases in periodicals.[186] Nurses did write, however. On the subject of this dissertation, only Gotfred Rekkebo's diary is known.[187] He wrote four lines every day intended for no one but himself: everyday things such as problems sleeping after night duty, helicopters arriving, patients who died, and daily life where social activities and trips to the market in Seoul also had a place. Rekkebo also methodically made scrapbooks. Clippings from newspapers which talked about Korea and NORMASH, travel letters from NORMASH and even letter from the family of a soldier who died at NORMASH are found in his scrapbooks. Of note is the interview with Gerd Semb on her tour of Japan for an official gathering to receive UN soldier number 100,000.[188] These are details that were also found in oral stories and that form a pattern of reliability in the oral stories.

3.4.2 Comparative approach

Historians work with change and try to identify change and what drives it.[189] Comparisons are systematically made to identify changes in time, and by using few entities, abstraction are

[181] Hjort, E. F. (1954). Abdominale krigsskader. Erfaringer fra Det norske feltsykehuset i Korea. *Tidsskrift for Den Norske Lægeforening*, 19(1), 611–616.
[182] Hjort, E.F. (1991). Fra det norske feltsykehus i Korea. In: Pedersen, L. U. (ed.) op. cit., pp. 86-89.
[183] Helle, K. (1955). Norsk feltprest i Korea. *Agder bispedømme årbok 1955,* pp. 111–120.
[184] Long, T. L. (2013). Nurses and Nursing in Literary and Cultural Studies. In: D'Antonio, P., Fairman, J. A. and Whelan, J. C. (ed.) *Routledge Handbook on the Global History of Nursing Research.* Accessed on 23 May 2018. https://www.routledgehandbooks.com/doi/10.4324/9780203488515 (ch. 3)
[185] Fause, Å. (2017). Op. cit., pp. 20–21.
[186] Farstad, A. (2016). *På liv og død. Distriktsjordmødrenes historie.* Oslo: Samlaget, p. 159.
[187] As demonstrated by other researchers, nurses wrote letters to their families and to their alma mater about both nursing practice and daily life. These writings were not meant for publication. Some of the letters and even diaries can probably still be found in family attics or archives. (Elstad, I. (2006). Sjukepleieyrke i Nord-Norge. In Elstad, I. and Hamran, T. (ed.) *Sykdom. Nord-Norge før 1940.* Bergen: Fagbokforlaget, pp. 307–400.)
[188] Lockertsen, Fause and Hallett. (2020). Op. cit.
[189] Tosh, J. (2015). Op. cit., p. 182.

made, and context can be created.[193] In this dissertation, it is changes in practice caused by the impact of Norwegian nursing efforts during the Korean War that are studied. Making use of the sources previously declared, the discipline's tradition is studied diachronically over time so as to identify practice up until the Korean War and changes in Norwegian nursing and theatre nursing practice after the Korean War.

3.4.3 Quantitative approaches

In the systematic work with the sources, a simple inductive and quantitative approach has been used, counting nurses in the name lists to ascertain how many of the nurses were trained as theatre nurses and how many of the nurses had an education from the NNA's Postgraduate School of Nursing (Fortsettelsesskolen).[194] The official reports from NORMASH containing statistics and the numbers of in-patients, operations and nurses do not directly address the practice of theatre nurses, but we can interpret their workload indirectly from these reports and form a picture of their practice if we triangulate this with other sources.[195]

3.4.4 Oral sources

Due to the scarcity of written histories of nursing practice, oral sources are the best method of gaining access to memories of the Korean War as experienced by Norwegian nurses.[196] It has been challenging to find nurses who were active at NORMASH due to the time that has elapsed since NORMASH ceased to exist in 1954. The Norwegian Army Medical Services has no records of the nurses who served at NORMASH.

The names of all of the nurses and deacons (male nurses) are known only through the work of the Norwegian Korean War Veterans Association and Lorentz Ulrik Pedersen. The search for nurses and the mapping of their formal competence (education and training) would not have been possible without these sources. Both sources were unknown to me when I started working on the history of the nurses at NORMASH. My methods for searching for nurses who served at NORMASH included "snowballing", by talking with people about this project,

[193] Andresen, A. et al. (2015). Op. cit., pp. 102–107. Melve, Leidulf. (2018). Å arbeide komparativt. In: Melve, L. and Ryymin, T. (ed.) *Historikerens arbeidsmåter.* Oslo: Universitetsforlaget, pp. 74, 70–91.
[194] Lockertsen, J.-T., Fause, Å. (2017). Op. cit. Straume, J. (1960). Op. cit., have been used for simple inductive and quantitative approach.
[195] Andresen, A. et al. (2015). Op. cit., pp. 96–102. Fause, Å. (ed.). (2017). Op. cit., pp. 21–22.
[196] Tosh, J. (2015). Op. cit., pp. 264–268.

for instance, and then asking for help from the Norwegian Korean War Veterans Association and and using the Internet to search for known names.

At the time of the interviews, the nurses were all in their late eighties or mid-nineties. Nursing history often involves cooperative disciplines such as that of physicians.[197] One physician is included in the oral histories. There are guard soldiers who are still alive, but as they were not nurses they have been excluded as informants for the oral history.

The interviews were all conducted in the informants' homes. An interview guide was prepared to ensure that central topics relating to their nursing at NORMASH were covered. The interviews were conducted using an open format and opening with the question "What did you do in Korea?" Consequently their stories provided direction for the conversation about their practice in Korea. My purpose in choosing an open format was to let the informants tell their stories in accordance with how they remembered their practice during the Korean War.

All of the informants had memorabilia from the Korean War in their homes. In one home there was a portrait of a young Korean in the entry. The picture was of Kim, an employee of Randi, the nurse, and her husband, Bjørn Lind, when they were serving together at NORMASH in 1954. Nurse Gerd Semb had the guitar she had taken with her to Korea in a corner. It caught my eye since it was decorated with paintings of a Korean flag and a Norwegian flag and the dates of her stay at NORMASH. With the guitar in hand, she told stories of taking it with her and singing songs and performing together with nurse Petra Drabløs.

[197] Fause, Å. (ed.). (2017). Op. cit., p. 22.

Gerd Semb (1918-2019) with the guitar she used in Korea

Photo by Jan-Thore Lockertsen

Several of the informants had framed diplomas from the Norwegian Army on their walls. Theatre nurse Margot Isaksen's diploma hung next to her deceased husband's diploma – he had served as an orderly in Korea in the same contingent as she had. The diplomas were received long after the Korean War. During the interviews, photo albums from Korea were on the table; there were stories connected to some of the photos. Nurse Kari Roll Klepstad and nurse Peder Klingsheim had colour slides.

Most of the informants had served together with colleagues from hospitals at home, or they had become colleagues afterwards with others who had served in other contingents.[198] Some of them formed close friendships. All of the interviewees except for Peder Klingsheim had visited Korea afterwards. They went on tours arranged by the Norwegian Korean War Veterans Association or were invited by the Norwegian Armed Forces Medical Services. They had all attended the annual meeting of the Norwegian Korean War Association regularly, although not annually.

Only five nurses and one physician are used as oral sources. This can be considered a small numbers. The nurses interviewed were all of advanced age when they were interviewed and

[198] Årdalsbakke, I. (2011). Oral story. Lind, B. (2015). Oral story.

believed to be the last ones still living.[196] Their stories, related in an open format many years later, can stand on their own and do not necessarily have to be accurate in all details to have value as complementary sources showing how the nurses interviewed today understand and remember the first Norwegian UN mission to an armed conflict.[197] However, in this dissertation their stories are used to write out knowledge about an untold history, and the question of reliability must be raised. Their stories, as is true of oral sources in general, need to be triangulated with other sources.[198]

For all of them the Korean War was a special happening. It had happened long ago but it was still close to them in a way that is often typical of remembered events.[199] By triangulating with other sources, reliability can be established.[200] The Korean War took place in a country far away from Norway. During their six-month period there, they lived at the camp. This was more than a workplace: it was their home. They still remembered details about the food and weather, details which made their stories personal.[201] In Kari Roll Kleppstad's oral story, she often returned to the children they had met in Korea and their situation in the war. Her colour slides were often of children at play and in recovery at NORMASH.[202] Was this concern for children a common attitude among the nurses active in Korea and could it be confirmed by other sources? When I met Gerd Semb, I was also told stories about the children and taking care of them. Indeed, in the archival material from NORMASH it was confirmed that the nurses had themselves informally organised the collection of children's clothes back home in Norway to bring to Korea and NORMASH.[203]

[196] All of the female nurses (Kleppstad, Semb, Årdalsbakke, Isaksen and the physician Lind) interviewed for this project had passed away by August 2020.
[197] Grove, K. and Heiret, J. (2018). Å arbeide med munnlege kjelder. In: Melve, L. and Ryymin, T. (ed.) *Historikerens arbeidsmåter.* Oslo: Universitetsforlaget, pp. 126, 122–147. Kjelstadli, K. (1999). Ibid., pp. 193–194.
[198] Grove, K. and Heiret, J. (2018). Ibid., p. 125.
[199] Lummis, T. (1998). Structure and validity in oral evidence. In: Perks, R. and Thomson, A. (ed.) *The Oral History Reader.* London: Routledge, pp. 274, 273–283.
[200] Ibid., p. 274.
[201] Kaldal, I. (2016). *Minner som prosesser – i sosial og kulturhistorie.* Oslo: Cappelen Damm Akademisk, pp. 125–129.
[202] Klepstad, K. R. (2011). *Opplevelser ved NORMASH* (Experiences at NORMASH). Transcript of interview conducted by Jan-Thore Lockertsen (hereafter "Oral History").
[203] Nilssen, E. (1953). *Brev til sjefssøster av 23 mars, Forsvarets sanitet* (letter to the matron-in-chief). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.

The informant interviews were conducted over a period of five years due to the fact that their names came to me at different times during the research period. Historical research is not conducted in the same way as a study where the steps are linear, as in the case of a quantitative study.[207] A first naïve reading of the first interview and an attempt at a more structural analysis of the whole text were carried out in an attempt to identify themes. The first interview was carried out before other primary sources were found. As the data accumulated, new questions were asked and a new reading and structural analysis were carried out, which I interpreted, leading to a new understanding.[208] This understanding was compared with other informants' interviews and the questions relating to the primary data to form a hermeneutical circle among the parts and the whole.[209] With an extended understanding of the interviews and the themes identified – e.g. motives for going to Korea, relations with Korean civilians; relations with children; relations in the army; memories of Korea; changes in practice after Korea – new perspectives were identified and the empirical data collected was searched in order to find other sources who could confirm the same.[210] I could then ask new questions in a scientific approach to the empirical material in order to establish a plausible historical interpretation of the research problem – the characteristics of Norwegian nursing practice and the impact on Norwegian nursing and theatre nursing after the Korean War.[211]

3.4.5 Use of photos

Documentation with pictures such as drawings and paintings has ancient roots, and pictures have functioned as memories, documentation of victory in war, and aesthetic valuables.[212] In historical research, pictures are a source of information that amplify other sources. As a source, the picture may provide information that cannot be found elsewhere.[213] As a document, it must be treated like other documents to establish reliability.[214] Pictures can also

[207] Gadamer, H-G (2003) [1953]. Op. cit., pp. 8, 7–15.
[208] Lindseth, A. and Norberg, L. (2004). A phenomenological hermeneutical method for researching lived experience. *Scandinavian Journal of Caring Science*, 18, 145–153. https://doi.org/10.1111/j.1461-6712.2004.00258.x
[209] Gadamer, H-G. (2003) [1959]. Om forståelsens sirkel. In: *Forståelsens filosofi – utvalgte hermenutiske skrifter.* Oslo: Cappelen Akademiske Forlag, pp. 33–44.
[210] Kjeldstadli, K. (1999). Op. cit., pp. 193–194.
[211] Gadamer, H-G. (2003) [1957]. Hva er sannhet? In: *Forståelsens filosofi.* Oslo: Cappelen Akademisk Forlag, pp.18, 16–32.
[212] Kaldal, I. (2003). Op. cit., p. 55.
[213] Kjeldstadli, K. (1999). Op. cit., pp. 197–201.
[214] Kjeldstadli, K. (1999). Op. cit.

be arranged to show what the filmmaker or photographer wants his audience to see, as well as to present authentic documentaries of real life.[215]

At the time of the Korean War, war correspondents had already long established the use of photos and film as part of their journalism to illustrate the horrors of the war.[216] Private use of photos has been common since the Second World War. Many of the personnel at NORMASH took cameras with them to Korea and documented their trip and daily life at NORMASH. Some of the pictures have been published in books of memoir,[217] and some are digitalised and are searchable on the Internet.[218] Others can be found in municipal collections, on personal blogs or on Facebook where they have been privately published, in published books, or in magazines and newspapers from the time of the Korean War.

In this dissertation and these articles, I have included photos from the nurses showing daily life during the service in Korea. The photos made available by the informants are not from clinical practice. They show ambulances arriving in convoys, they show helicopters, they come from social gatherings and they feature Korean children in daily life as well as patients in recovery at NORMASH. Religious monuments are also found in the picture material. Can such motives say something about nursing? They say something of interest about the welfare of the people they were there to help. However, the nurses' pictures were memorabilia that they used to show how they perceived and experienced Korea.[219]

3.4.6 Ethical considerations

It was necessary for the project to be registered and ethically approved. The Norwegian Centre for Research Data (NSD) is the privacy ombudsman for the Norwegian Arctic University (UIT). Approval from NSD has been granted under number 25104. No clauses material has been used in this dissertation and no sensitive data has been registered following the interviews with informants.

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[215] Tosh, J. (2009). Op. cit., pp. 214–21.
[216] Mohn, A. H. (1951). *Rød taifun over Korea.* Oslo: Gyldendal Forlag, pp. 64, 65, 95, 96, 143, 144. Norwegian IP addresses can search for and read the book online at Nasjonalbiblioteket: https://www.NB.no.
[217] Bakke, F. (ed.). (2010). *NORMASH Korea i våre hjerter.* Oslo: Norwegian Korean War Veterans Association, pp. I–XXIX.
[218] The Municipal Archive of Trondheim has published Inger Schulstad's photos. https://www.flickr.com/photos/trondheim_byarkiv/albums/72157647401564923/page1
[219] Kaldal, I. (2016). Op. cit., p. 62.

Interviewing informants as part of a history research project using oral sources among others involves both formal ethical approval and reflection on ethical guidelines before commencement. Information about the project was given written and orally. No sensitive information has been registered. A signed contract has been obtained from the informants. Informants participated voluntarily and could withdraw their approval at any point in the process without giving a reason for their decision. All informants signed to indicate their approval of the use of their oral history and their names in this dissertation.

The processing of personal data from oral sources as well as from archives has been carried out in accordance with personopplysningsloven (The Personal Data Act) Lov-2000-04-14-31 § 8 d) and 20 b); the data is of public interest and necessary for the research project and contains no sensitive information. This was the applicable law when the interviews and the archive search were carried out and the papers in this dissertation prepared.[220] The law of 2000 has been replaced by personopplysningsloven Lov-2018-12-20-116 and the principles of the earlier law are continued in the new law.

A concern prior to the interviews was whether an interview about the Korean War might trigger memories from the war that were hard to deal with. Being trained as a nurse means having had training in meeting patients with respect and guarding their integrity and vulnerability. Informants are to be met with the same respect. As was agreed with my supervisor, I would contact veterans organisations for international operations for help if needed. From my first telephone contact with the informants, I received the impression that they were pleased to be asked to be informants. When looking at the framed photos of Koreans on the wall, diplomas from the army for service in Korea and other memorabilia, I realised that to varying degrees my informants had very good memories from the Korean War. As previously mentioned, some of the informants had been back to Korea on tours for veterans, and one was invited by the Norwegian Army Medical Services after papers from this dissertation renewed interest in the Korea Sisters.[221] The interviews revealed the same:

[220] The law of 2000 has been replaced by personopplysningsloven LOV-2018-12-20-116, which continues the principles of the earlier law. The new law has no effect on data used in this dissertation.
[221] Fonn, M. (2019). Korea-sykepleier (99): -Det var ikke tid til å være redd for å bli bombet. *Sykepleien* 30.06. https://sykepleien.no/2019/06/korea-sykepleier-99-det-var-ikke-tid-til-vaere-redd-bli-bombet

their concern for civilian society, daily life at NORMASH and doing what they were trained for, i.e. nursing and running a hospital.

According to nurse Inga Årdalsbakke, they were not allowed to take pictures of patients inside the hospital tents at NORMASH.[222] However, there are a lot of photos showing patients at NORMASH.[223] Without written permission, a photo cannot be published. Photos can, however, be published 15 years after a person's death. Most of the photos of patients from NORMASH are nameless. Therefore, obtaining written permission is an impracticable task. I have therefore excluded from this dissertation any pictures with identifiable patients in treatment

[222] Årdalsbake, I. (2012). Oral story.
[223] Sykepleien (1952, June). Operasjonsrommet ved Norwegian Mobile Surgical Hospital i Korea. *Sykepleien,* 39(12): Front cover. Bildet viser Hetty Henrichsen som gir anestesi til en koreansk pasient. Merk at ordet 'Army' mangler da sykehuset var et Røde Kors-sykehus til november 1951(The picture shows Hetty Henrichsen giving anaesthesia to a patient. Note that the word 'Army' is missing since the hospital was a Red Cross Hospital until November 1951).

4 Findings

4.1 Paper 1

The purpose of this paper is to explore the nursing practices at the Norwegian Mobile Army Surgical Hospital (NORMASH). During the Korean War (1950–1953), MASHes, organised in tents and as tactical units that could move and operate on their own, were used for the first time. MASH was an innovation based on the experiences of previous wars with forward-deployed medical teams and early treatment. The NORMASH was one of six MASHes serving as frontline hospitals 15 to 30 kilometres behind the frontline in Korea.

Working in tents with earth floors demanded cautiousness and the use of nursing skills to prevent infection. At NORMASH, only trained theatre nurses and competent nurses were used for nursing work in the operation theatre and in the wards. Proximity to the battlefield and the use of helicopters for medical evacuation enabled the swift transportation of casualties to frontline hospitals such as NORMASH. Patients with severe trauma that would have been lethal in previous wars survived because of the early definitive treatment at the MASHes.

Only trained theatre nurses were recruited for work in the operating theatre and only nurses for work on the wards. The exclusive use of educated nurses in the operating theatre and on the wards was probably a key factor in NORMASH's medical success as a hospital. The educated nurses trained orderlies and Korean civilians to assist in logistics tasks and specific auxiliary work with very good results.

Ninety thousand patients were received and treated at NORMASH: 14,755 as inpatients, of whom 12,201 before the armistice of July 1953. Nine thousand six hundred operations were performed. The mortality rate in Korea was 2.5%. At NORMASH it was as low as 1.2%. Quick medical evacuation and treatment by highly trained personnel played a major part in achieving these results.

4.2 Paper 2

The aim of this paper is to explore the nature of NORMASH as a military and a humanitarian hospital. The Norwegian field hospital was stationed in Korea from June 1951 to November 1954, for two years during armed conflict and one year into the armistice. Formally, NORMASH was a frontline hospital and a subject of the US Eighth Army of Korea as part of the UN peace-enforcement action in Korea. It was, however, denied military status by the Norwegian Ministry of Defence. It was designed as a civil hospital and operated by the Norwegian Red Cross. In November 1951, the operation and administration of the hospital were transferred to the Norwegian Armed Forces Medical Services and it became, officially, a military hospital. The medical personnel were all non-military volunteers.

Five nurses and one physician have been interviewed in open format about their clinical practice in Korea. Their relationships with Korean civilians and their care of children were highlighted by them in their oral histories. Contemporary letters to the Matron-in-Chief of the Norwegian Armed Forces Medical Services show the same care for and commitment to Korea and Korean civilians.

NORMASH served in a country where the infrastructure and civil health-care system had been destroyed by war. NORMASH was allowed to reserve 20% of the sixty beds to treat Korean civilians. Korean civilians were also employed for various tasks at NORMASH. There were stray children and children living in orphanages in the vicinity of NORMASH, and some of these children found a home there and were employed by the staff for domestic chores.

Although NORMASH was a field hospital subject to EUSAK, humanitarian aid to the Koreans was a priority for the medical staff at NORMASH. The interviews and contemporary letters show the nurses had no conflict of interest between being a military hospital and being a humanitarian hospital. The number of civilian patients at NORMASH increased after the armistice of 23 July 1953. Nurses at NORMASH started to train Korean civilians as nurses and started an outreach project to teach nursing practice and home care in the rural areas surrounding NORMASH.

4.3 Paper 3

The aim of Paper 3 is to explore whether, and in what way, the Norwegian nurses had any impact on Norwegian nursing after the war. Did their wartime nursing act as a catalyst for identifiable changes in education and training in Norwegian nursing? The article also explores whether the humanitarian engagement in Korea ended when NORMASH was terminated in October 1954.

The Norwegian nurses who served in the Korean War were nicknamed the "Korean Sisters". They experienced wartime nursing and war surgery like no other Norwegian nurses before them. Clinical nursing was performed only by trained nurses. Practical work connected to logistics and practical assistance on the sick ward was delegated to personnel without nursing training after the nurses had taught them basic nursing techniques and only under the supervision and guidance of nurses. The Norwegian nurses were recruited from civilian hospitals, and they returned to civilian health care after their engagement in the Korean War. Open Norwegian sources enable us to trace and map the Korean Sisters' practice after the war.

Trauma surgery and the organisation of medical evacuation with helicopters introduced new surgical techniques that were later introduced into civilian trauma surgery and disaster preparedness. These were probably introduced into Norwegian health care earlier than in other countries since the theatre nurses and surgeons returned to civilian health care after their service in Korea. Medical evacuation with helicopters, which was introduced in the Korean War, is today an important part of pre-hospital medicine.

Several of the nurses worked through their interest organisation for a uniform education in theatre nursing before they served in Korea. As theatre nurses they were cross-trained in anaesthesia. Before 1950, there was a tendency towards separation between theatre nurses focusing on assisting surgeons in the operation field and theatre nurses conducting anaesthesia only, and the Korean War reinforced this process. The fields of theatre nursing and anaesthetist nursing were broad for a single specialisation. Nurse anaesthetist became a Norwegian nursing speciality separate from theatre nursing in 1965. In 1974, both theatre nursing and anaesthetist nursing became uniform educations following national guidelines. The interest organisations for theatre nurses and nurse anaesthetists were central in this work.

The Korea Sisters' commitment to the Korean cause did not end in 1954. Between 1958 and 1968, the Scandinavian countries of Norway, Sweden and Denmark operated a hospital in Seoul, South Korea. The hospital was planned during the Korean War. Its purpose was the education of nurses and physicians and the restoration of Korea's health-care system. Several of the nurses who had served at NORMASH returned to Korea and held leading positions at the hospital. In 1968, the ownership of the hospital was transferred to South Korea. The National Medical Centre is still an active hospital in Seoul, South Korea.

5 Discussion

5.1 We Ran a Hospital

When theatre nurse Margot Isaksen was asked "What did you do in Korea?" she promptly replied: "We ran a hospital."[223] Her answer refers to the first aim of this dissertation, which is to explore and document the Norwegian nurses' contribution to the operations at NORMASH. Its second aim is to highlight the impact that the nurses' efforts had on Norwegian nursing and theatre nursing after the Korean War.

5.1.1 Nursing leadership in hospitals

A hospital's clinical work is centred on the patients' need for nursing care and medical treatment.[224] Organising the running of a hospital involves organising a lot of tasks,[225] including menial work, caring for patients, and supervising and guiding nurses and auxiliary personnel. The daily running of NORMASH was the Head Nurse's duty. What kinds of routines were established at NORMASH to run the hospital and ensure nursing standards?

NORMASH, together with its supporting departments, was a big hospital by Norwegian standards.[226] But NORMASH was not just another Norwegian hospital in any Norwegian town. NORMASH was a field hospital stationed close to the 38th parallel in a war that took place on the other side of the world, far away from Norway. The environment was hostile. The nurses worked in tents and slept in tents. The weather was cold during winter and hot during summer.[227] The noise of nearby artillery was close by, and in the evening it looked like fireworks.[228] There was no time to rest during rushes. Ambulances with casualties arrived one behind the other.[229] Yet there was something familiar: running a hospital.

[223] Isaksen, M. (2012). *Opplevelser ved NORMASH* (Experiences at NORMASH), 27 Nov. Interviewed by Lockertsen, Jan-Thore. Greverud.
[224] Hamran, T. (1992). Op. cit., pp. 52–53. Apel, Otto F. and Apel, Pat. (1998). *MASH: An Army Surgeon in Korea.* Lexington: The University Press of Kentucky, p. 54.
[225] Heide, I. S. (1954). Op. cit.
[226] Paus, B. (1953). Litt om norsk feltsykehus i Korea og tungt feltsykehus. *Offisersbladet*, 9(2), 74–78.
[227] Klepstad, K. R. (2011). Oral story.
[228] Semb, Gerd. (2011). Oral story.
[229] Rekkebo, G. (1951). 5-års dagbok, 1947–1951.

The leadership at NORMASH was shared leadership: a medical leader was the chief of hospital, a military leader was in charge of administration and the Head Nurse was the nursing leader.[230] Head Nurses at NORMASH supervised all clinical nursing at NORMASH and all nurses were under her command in clinical as well as disciplinary matters.[231] In clinical nursing practice, all deacons (male nurses) and orderlies were also under her command. And during rushes, all auxiliary personnel supporting nursing activities were under her command as well.[232] A qualified nursing leader educated at the NNA's Postgraduate School of Nursing (Fortsettelsesskolen) was hard to get. However, at least six of the eight Head Nurses had a postgraduate education in hospital administration and teaching, along with experience as matrons and head nurses back home in Norway prior to NORMASH.[233]

Mapping the nurses' nursing competence was a priority for head nurses at NORMASH.[234] This seems to have been done methodically on arrival at NORMASH in Korea. Logistical plans for rushes were necessary, as were plans for round-the-clock work. Patients needed to be prepared for operations and monitored afterwards. Preparing for an operation also included diagnostics in the X-ray department, where 183,000 X-rays were taken.[235] Everyone, not only nurses, had to know what to do and when to do it. Registering patients and writing journals were important tasks that took time. Deacons (male nurses) were primarily used for this nursing task.[236] All of the teams in the operation theatre had to have theatre nurses who could assist the surgeons during operations and also conduct anaesthesia.[237] Based on the experiences of three different leading theatre nurses in the operation theatre at NORMASH, it was recommended that the leading theatre nurse have at least four years of practical experience as a theatre nurse. This would be sufficient to provide confidence in the role of a

[230] Paus, B. (ed.). (1955). Op. cit., p. 43.
[231] Andresen, R. (1986). Op. cit., pp. 105–106.
[232] Hjort, E. F. (1952). *Instructions for Head Nurse at NORMASH.* Riksarkivet RAFA-3422. Oslo: Forsvarets sanitet.
[233] Straume, J. B. (1960). Op. cit. Rønnaug Wüller, Ingebjørg Skoghaug, Ruth Andresen, Signe Bugge and Inga Stamnes Heide are listed as having a postgraduate education in administration and teaching from the NNA. Lina Børseth is not listed, but she worked as matron after NORMASH and it is reasonable to believe that she had a postgraduate education in administration and teaching. In the case of Emma Folven and Kathrine Næss, it is unknown whether they had a postgraduate education prior to service at NORMASH. According to L. U. Pedersen (1991), op. cit., pp. 184 & 186, both Folven and Næss were promoted from lieutenant to captain. This promotion may indicate that both served with two contingents, one as a theatre nurse and the other as head nurse, and therefore knew the hospital before having a leading position.
[234] Andresen, R. (1954). Op. cit.
[235] Paus, B. (ed.). (1955). Op. cit., p. 99. According to Bjørn Lind, the X-ray images were sold to Korean civilians when NORMASH was closed down in 1954. They were used as windows. (Lind, B. (2015). Oral story.)
[236] Rekkebo, G. (1951) Op. cit., 9 October.
[237] Andresen, R. (1953). Op. cit. Heide, I. S. (1955). Op. cit.

leader in the operation theatre. The generalist competence of the theatre nurse was important at the field hospital. The leading theatre nurse in the operation theatre as well as the other theatre nurses had to be able to assist in all surgical interventions and work quickly.[238]

Patients at a MASH were to stay for a maximum of 72 hours before returning to active duty or being evacuated to the rear for further treatment.[239] In practice, many patients had stays longer than three days. Patients who had undergone abdominal surgery stayed for up to ten days before being evacuated to the rear.[240] Head Nurse Inga Heide used to do ward rounds of all the departments at NORMASH every morning for reports on every patient's condition. She needed to know this to plan the patient flow, i.e. whether the patients be dismissed or transported to the rear for further treatment. During the October offensive of 1951, one thousand six hundred patients were received over 12 days.[241] On one single day during the offensive, 400 casualties arrived.[242] With their personal knowledge of the patient flow, the head nurses were able to administrate the hospital's nursing resources at all times.[243]

All the material at NORMASH was provided by the US and paid for afterwards.[244] The Head Nurse at NORMASH was responsible for maintaining and economically utilising the hospital's equipment. This responsibility was delegated to nurses on the wards, who recorded both consumables and reusable equipment. All requisition of food was carried out according to the number of military patients. Limited resources had to be carefully and economically looked after and distributed, both at NORMASH and the US MASHes.[245]

According to Torunn Hamran, leadership routines are on both administrative and individual levels with regard to the patient needs.[246] Mapping of competence is necessary in order to safeguard nursing practices for individual patients, whether in the operating theatre or on the wards. This relates to the individual level. Having first-hand knowledge of patient flows and

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[238] Heide, I. (1955). Op. cit.
[239] Andresen, R. (1954). *Artikkel angående norske sykepleiersker i Korea* (Article regarding Norwegian nurses in Korea). Submitted to the periodical *Lottebladet*. Riksarkivet (National Archives of Norway RAFA-3422. Oslo: Forsvarets sanitet.
[240] Hartvigsen, H. (1954). Op. cit. Hjort, E. F. (1954). Op. cit. Pedersen, L. U. (1991). Op. cit., pp. 132–136.
[241] Aftenposten. (1951, 27 October). Feltsykehuset i Korea får den høyeste ros. *Aftenposten*, p. 4.
[242] Rekkebo, G. (1951). 5-års dagbok 1947–1951, 3 oktober (Five-year diary 1947–1951, 3 October). *Rannei og Gotfred Rekkebos privatarkiv.* Ottestad: Migrasjonsmuseets arkiv.
[243] Heide I. S. (1955). Op. cit.
[244] Paus, B. (ed.). (1955). Op. cit.
[245] Apel, J. P. (1998). Op. cit., p. 96.
[246] Hamran, T. (1992). Op. cit., pp. 52–54.

the distribution of supplies (food and medicine) and of the need for personnel resources relates to the administrative level. In a hospital, the performance of these chores can be invisible and only noticed when absent.[247] Although it was a Norwegian tradition to ensure that nursing leaders were educated, the example of running NORMASH shows us more of the duties of the Head Nurse. The personal knowledge of patient needs on the administrative and individual levels that Hamran observed was, at NORMASH, woven into Heide's and other leading nurses' understanding of leading the nursing service: it was a matter of not only having skills in administration but also being a skilled nursing practitioner.[248]

Norwegian nursing is embedded in a nursing tradition of expertise arising from both practical and theoretical education.[249] As in Norwegian hospitals, the Head Nurse at NORMASH was responsible for the teaching and training of personnel.[250] These were mainly nursing pupils in training to become nurses. At NORMASH, a new situation occurred. Orderlies – soldiers who acted as nurse assistants – were planned to be used on all wards. Few of them had any training in or experience of hospital work prior to Korea. This was a shortcoming that affected NORMASH's medical readiness in every contingent.[251] Instructing and supervising personnel in nursing came to be an important and time-consuming duty for the nurses, and courses for orderlies were held at NORMASH,[252] something which, according to Matron-in-Chief Ruth Andresen, occurred much too late: this should have been done prior to their departure for Korea.[253]

The training of orderlies at NORMASH shows the division of labour between the nursing staff and the surgeons. The nurses demonstrated the fundamentals of nursing. The surgeons gave lessons in the organisation of trauma care and the principles of surgical and medical treatment. The hospital head nurse and the leading theatre nurse for the operating theatre gave lessons in the work of the operation theatre and observation of patients, as well as in ethics.[254]

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[247] Benner, P. (1984). *From Novice to Expert.* California: Addison Wesley Publishing Company, p. 149.
[248] Heide, I. S. (1955). Op. cit.
[249] Nordtvedt, P. (2008). *Sykepleiens grunnlag.* Oslo: Universitetsforlaget, p. 11.
[250] Hvalvik, S. (2005). *Bergljot Larsson og den moderne sykepleien.* Oslo: Akribe, p. 251.
[251] Andresen, R. (1952). *Rapport til sanitetssef datert 5 juli* (Report to the chief of the Amy Medical Services, dated 5 July). Riksarkivet RAFA-3422. Oslo: Forsvarets sanitet.
[252] Ibid. Paus, B. (ed.). (1955). Op. cit., p. 80.
[253] Andresen, R. (1952). Op. cit. Heide, Inga S. (1955). Op. cit.
[254] Andresen, Ruth. (1952). Op. cit.

The content of the lesson in ethics and the ethical questions raised are not specified in the course plan. However, the oral stories of participating nurses show respect and compassion for soldiers and civilian patients as well as for POWs.[255] Compassion and respect for all patients can also be found in contemporaneous letters and reports from nurses.[256] The inherent dignity of every patient, independent of nationality and status, was probably an issue that was raised and highlighted in the ethics lesson.

One could not learn to do the practical work in the operation theatre exclusively through theoretical lessons and practical demonstrations, and it was not part of the courses in basic nursing procedures. Orderlies assigned to the operation theatre were trained in practical skills on the job in the operation theatre. Every operation required a steady supply of sterile instruments, drapes, clothes and bandages.[257] Assignment to the operation theatre was prestigious; one received instruction there in practical work such as using autoclaves for sterilising instruments, bandages and gowns.[258] Some of the soldiers were also able to assist surgeons by holding retractors during operations.[259] Holding a retractor was not a primary task for theatre nurses but something they did if surgeons lacked assistants.[260] Letting non-nurses perform this task probably did not raise questions of competence.

The lessons for orderlies were too rudimentary to provide exhaustive training in assisting nurses. Nevertheless, when looking at examples of the lessons held for orderlies at NORMASH, we can identify Norwegian nursing traditions and the knowledge base that nurses considered as important. Nursing as an independent subject includes responsibilities such as observing patients and practical daily routines such as making a bed.[261] Nursing also involves interaction with medicine and requires knowledge of the principles of trauma care. Furthermore, ethical standards are embedded in nursing practice.[262]

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[255] Semb, G. (2011). Oral story. Årdalsbakke, Inga. (2012). Oral story.
[256] Hårvik, O. (1951). Op. cit.
In Gotfred Rekkebo's scrapbook, a newspaper clipping states that Hårvik was one of the last to leave central China prior to the Red occupation during the summer of 1950. *Rannei og Gotfred Rekkebos privatarkiv.* Ottestad: Migrasjonsmuseets arkiv. Hartvigsen, Harda. (1955). Op. cit.
[257] Apel, J. P. (1998). Op. cit., p. 110.
[258] Sandvik, O. (2012). Oslo. Op. cit., p. 56.
[259] Randby, D. (2012). Op. cit., pp. 34–36.
[260] Widerøe, S. (1926). Op. cit.
[261] Nightingale, F. (1997). *Notater om sykepleie.* Oslo: Universitetsforlaget, pp. 124–125.
[262] Nordtvedt, P. (2008). Op. cit., pp. 8–9.

5.1.2 Interaction and cooperation between nursing and medicine in theatre nursing

Nurses have always had the sole responsibility for caring for the patient, but they have also acted as assistants and provided support in the medical treatment of the patient.[264] Looking at clinical practice in the operating theatre can give us a broader understanding of the interaction between theatre nurse and surgeon and their dependence on one another in patient treatment as this evolved in the Norwegian tradition with the introduction of anaesthesia and aseptic procedures.

The operation theatre was the heart of NORMASH and the centre of all daily activities. Logistical work and supporting departments were there to enable the surgical activity in the operation theatre to function. During its three years of activity, an average of eight operations a day were carried out; sometimes this was as few as one operation, and at the most sixty-four operations were performed in one day.[265] Theatre nurses were present during all operations and cared for patients with life-threatening trauma; this care ranged from debridement of multiple wounds to band aids on scratches.

The theatre nurse as first assistant, receiving and delivering instruments from and to the surgeon, is perhaps the most familiar image of a theatre nurse.[266] It is also the image we find in writing and articles about the US MASHes. Nurse historian Sarnecky says that US theatre nurses "presided" over the instrument table,[267] but "presiding over the instrument table" really does not tell us what the theatre nurses did. In response to a question about how she arranged the surgical instruments before an operation, theatre nurse Margot Isaksen answered: "The same as at home. First the instrument for opening, and then arranging them for to use as the operation progressed."[268] What is theatre nursing? Is it arranging instruments, or is there something more to be learnt from Isaksen's statement?

Time is of the essence in all surgery. The longer a patient's wound remains open and the patient remains unconscious under anaesthesia, the greater the risk of complication. When an operation starts, the whole team must be ready, and each member must know her or his part of

[264] Nordtvedt, P. (2008). Op. cit., p. 48.
[265] Paus, B. (ed.). (1955). Op. cit., p. 70.
[266] Sandelowski, M. (2000). Op. cit., p. 116.
[267] Sarnecky, M. T. (1999). Op. cit., p. 305. Hallquist, D. L. (2005). Op. cit.
[268] Isaksen, M. (2012). Oral story.

the work during surgery. In trauma surgery, detailed planning is not always possible. The extent of the operation and the direction it may have to take are not known beforehand. The surgeon has to make quick decisions and the operating team must react immediately to his decision. Surgeon and Chief of Hospital Erling Hjort has described dramatic bleeding in a patient on the eighth day following an operation. He decided to ligate the arteria hypogastrica to stop the ongoing bleeding in the gluteral region.[269] Once he had made this decision, his order to the theatre nurses was: "Iodine abdomen. Anaesthesia and instruments." These few words were instructions to disinfect the skin before operation, put the patient in narcosis and have the instruments ready. According to Hjort, this operation took only a few minutes.[270]

Strict rules and procedures did exist for some parts of the surgical intervention described by Hjort. There were rules and procedures for disinfecting the skin to reduce the number of microorganisms and prevent harm from disinfectants.[271] There were rules and procedures for conducting anaesthesia.[272] As for the intervention itself, however, there were no strict rules or procedures that the theatre nurse could use to prepare herself.[273] As surgery is handicraft, not all interventions are standardised and it may not be possible to provide detailed rules.[274] Theatre nurses did not assist without prior knowledge, however, even if rules and procedures were lacking.

The role of theatre nurse in the operating team, such as the role filled by Margot Isaksen, was not that of a bystander. Assistants were trained to take an active part in instrumentation:

> The assistant is not to be a bystander but should follow the surgeon in his thinking and help him at the right time and in the right place […]. The operation should take place with as little conversation as possible – preferably without a word. This demands a lot of practice and great interest from the assistant. (Quotation translated by JTL)[275]

Theatre nurses were trained to be part of an operating team in which their role was to be ready with the instruments just before the surgeon needs them. As NORMASH covered a given part

[269] Hjort, E. F. (1954). Op. cit., p. 616.
[270] Hjort, E. F. (1991). Fra det norske feltsykehuset i Korea. In: Pedersen, L. U. (ed.) *Norge i Korea.* Oslo: Huitfeldt Forlag A.S., pp. 88, 86–89.
[271] Marthinsen, M. and Haffner, J. (1941), p. 270.
[272] Haffner, J. (1941). Narkose. In: Jervell, Anton (ed.) *Lærebok for sykepleiersker*, Bind II. Oslo: Fabritius og Sønners Forlag, pp. 201–216.
[273] Pløen, I. (1950). Utdannelse av operasjonssøstre. *Tidsskriftet Sykepleien,* 36(19), pp. 587–589.
[274] Widerøe, S. (1926). Op. cit., p. 111.
[275] Widerøe, S. (1926). Op. cit., p. 112.

of the front and had to take whatever came its way in terms of casualties and trauma, not all of the surgical procedures that needed to be performed were familiar to the theatre nurses ahead of time.[276] Nevertheless, they were familiar with many different operations from hospitals at home, and it was recommended that they have at least two years' experience in clinical practice in general surgery before serving at NORMASH.[277]

As previously mentioned, theatre nurses themselves prepared the instruments for an operation beforehand, independently of the surgeon. Like Margot Isaksen, the theatre nurses had lists of, or knew by heart, which instruments to use for specific operations.[278] However, these were standardised lists and they were not exhaustive. The theatre nurse had to know the different instrument groups and choose according to patient anatomy, pathological condition, how the instrument was used and the preferences of the co-working surgeon. Being able to assess which instruments might come in handy in addition to the standard instruments for specific operations, as well as the knowledge of anatomy and the surgical intervention, was based on acquired knowledge that formed each theatre nurse's clinical forethought. [279]

Theatre nurses also understood their speciality as changing rapidly with progress in surgery. Operating methods could vary from surgeon to surgeon, even if the basic principles remained the same.[280] It is believed that on the basis of their understanding of the basic principles of practice and their clinical practice, they were able to function at NORMASH, where theatre nurses were introduced to new surgical techniques and procedures during the Korean War.

The work in the operation theatre could at times be very intensive. With the reception of up to 120 casualties within a 60-hour period, as occurred after the Chinese attack on Old Baldy on 23 March 1953, the waiting time for treatment could be long. Debridement of wounds in extremities and the buttocks took time: first washing the wound, then mechanical removal of dead tissue and debris before irrigation with a saline solution and then dressing. A new method for the debridement of wounds was thorough debridement with delayed primary

[276] Hvoslef, A. (1951). Op. cit.
[277] Heide, I. S. (1954). Op. cit.
[278] Marthinsen, M. (1941). Instrumentfortegnelse. In: Jervell, A. (ed.) *Lærebok for sykepleiersker,* Bind 1. Oslo: Fabritius og Sønners Forlag AS, pp. 360–370.
[279] Benner, P., Kyriakidis, P. H, and Stannard, D. (2011). *Clincial Wisdom and Interventions in Acute and Critical Care* (2nd edition). New York: Springer Publishing Company, pp. 71–72.
[280] Pløen, I. (1954). Spesialutdanning av operasjons- og narkosesykepleiere i grunnskolen og senere. *Tidsskriftet Sykepleien*, 41(19), 587–589.

suturing of the wounds. Without primary sutures, time was saved, and the result was so promising that debridement of wounds with delayed primary surgery became standard treatment.[281]

Operations on lungs and abdominal wounds took the most time, but the use of armoured body vests had reduced the incidence of these types of trauma.[282] With registration upon arrival at NORMASH followed by journal writing and X-rays and a pre-operative blood transfusion, the process could take three hours, and with an operation time of about two hours, an abdominal wound could demand nursing resources for five hours.[283] Leading theatre nurse Harda Hartvigsen believed the survival rate for abdominal wounds to be 90%, although this was not solely a consequence of early operation. According to Hartvigsen, the prophylactic use of the antibiotics which had been made available and which were used to prevent infection obviously played a major role in achieving the low mortality rate.[284] Another field in which the prophylactic use of antibiotics played a major role was vessel surgery.

Limbs were frequently injured by shrapnel from artillery and landmines because armoured body vests did not protect the extremities.[285] The consequences of these injuries included acute arterial injury and extensive damage to soft tissue, which often resulted in the amputation of lower extremities.[286] At the start of the Korean War, the surgeons had not been trained in the treatment of vascular injuries and a procedure other than end-to-end anastomosis were against military doctrine. Two of the surgeons at US MASH 8055 started arterial repair with vein grafting while it was still prohibited.[287] The same procedure was also introduced at US MASH 8076 in 1951 by Otto Apel and John Colman.[288] This was the

[281] Borch-Johnsen, E. (1953). *Rapport pr. 31 mars 1953 fra Sjefen for Norsk Feltsykehus i Korea* (Report of 31 March 1953 from the Chief of Hospital at the Norwegian Field Hospital in Korea). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet. Paus, B. (1954). Op. cit., p. 386.
[282] Borch-Johnsen, E. (1953). Op. cit.
[283] Hjort, E. F. (1954). Op. cit., p. 612.
[284] Hartvigsen, H. (1954). Op. cit., pp. 5–6.
[285] Apel, J. P. (1998). Op. cit., p. 189.
[286] Zieperman, H. H. (1954). Acute Arterial Injuries in the Korean War. *Annals of Surgery*, 139(1), pp. 1–7.
[287] Friedman, S. G. (2017). Korea, M*A*S*H, and the accidental pioneers of vascular surgery. *Journal of Vascular Surgery,* August 2017. http://dx.doi.org/10.1016/j.jvs.2017.01.055 The two surgeons were Richard Hornberger and John Lyday. Hornberger would eventually, under the pseudonym Richard Hooker, portray himself and Lyday as Hawkeye and Trapper John in *MASH: A Novel About Three Army Doctors*.
[288] Baker, M. S. (2016). Lead, Follow, or Get out of the Way – How Bold Young Surgeons Brought Vascular Surgery into Clinical Practice from the Korean War Battlefield. *Annals of Vascular Surgery,* 33, pp. 258–262. http://dx.doi.org/10.1016/j.avsg.2016.01.010

MASH that the Norwegian surgeons arrived at in June 1951 to "look over our shoulders and learn the operation of a combat MASH."[289]

Vein grafting was not new at the time of the Korean War, but it was still a novelty, and the surgeons at MASH 8076 even had to have their own clamps produced to use on vessels during surgery.[290] Vein grafting was also a procedure available at NORMASH. War surgery had to be learnt in practice – "on the job" – and theoretical learning was insufficient. Injuries of the big vessel were, as one Norwegian surgeon described it, a "nightmare", and problems related to sutures on vessels and vein grafting still had to be resolved and the techniques refined.[291] However, the Norwegian operating team at NORMASH, consisting of surgeons and theatre nurses, as well as the surgeons and nurses at the US MASHes, expanded both their roles and their knowledge of arterial repairs during the Korean War.[292]

Much of the surgery at NORMASH was conducted according to principles of war surgery provided by the US Army in its technical bulletins. These were known surgical principles adjusted to war conditions. But surgical experience such as arterial repair during the Korean War changed the guidelines for surgery. The guidelines for frostbite treatment and modern treatment of shock were also changed.

Irreversible shock was one of the main concerns of contemporary surgeons during the Korean War,[293] as well as a major concern of the surgeons and nurses at NORMASH.[294] Theatre nurse Hartvigsen wrote the following about her observations at the start of operations:

> On occasion we also observed how bloated a thigh or an arm could become from the seepage of blood out into the soft tissue (Quotation translated by JTL).[295]

It was neither the room nor the instrument that concerned Hartvigsen in this case: it was the patient and caring for him by monitoring his heart rate and blood pressure while trying to stop the haemorrhage and supplement the loss of blood. Nurses' involvement in the treatment of

[289] Apel, O. F. and Apel, P. (1998). Op. cit., p. 181.
[290] Ibid., pp. 15–158.
[291] Borch-Johnsen, E. (1953). Op. cit.
[292] Paus, B. (1954). Op. cit. Apel, J. P. (1998). Op. cit., p. 214.
[293] Trunky, D. D. (2000). History and Development of Trauma Care in the United States. *Clinical Orthopaedics and Related Research,* 374, pp. 36–46.
[294] Paus, B. (1954). Op. cit., p. 13.
[295] Hartvigsen, H. (1955). Op. cit., p. 7.

shock could begin as soon as a patient was admitted, before a journal was written. To ensure the the transfusion fast enough, Vaseline was used on the tube to make it smooth prior to the tube being "milked" to flush the blood into the patient.[296] According to nurse Peder Klingsheim, administering blood transfusions was an important task that demanded careful observation and nursing of the patient, and in which the patient's salt and fluid balance had to be carefully accounted for and recorded.[297] Furthermore, post-operative patients who had received a large quantity of blood to compensate for blood loss that had led to shock had to be carefully observed by attentive nurses for signs of haemolytic jaundice or liver trauma.[298] There were also other hazards, such as damage to pulmonary circulation in the case of an excessive blood transfusion.[299] The treatment of shock from blood loss at the MASHes in Korea is considered one of the primary advancements in emergency medicine.[300]

The four operating tables at NORMASH were placed in the same room, and there were no curtains to shield patients from seeing what was happening on the other tables if they were conscious when they came to in the operation theatre.[301] During daily work in a civilian operation theatre, theatre nurses would shield patients from the noises from ongoing operations when they were received in the operation theatre; letting patients see bloodstained clothes was an unforgiveable wrong.[302] At NORMASH, such shielding was impossible, and the patients' reactions, such as anxiety and fear of what was to come, were familiar to the theatre nurses and were exacerbated by the lack of a common language. This was of great concern to the theatre nurses.[303]

The operation tent at NORMASH was in no way an aseptic operation theatre. It was a tent, and the operation tables were placed directly on the earth floor. Blood and fluids ran into the soil and were covered with fresh sand, with oil then being poured onto the sand to reduce the dust nuisance. Even so, infections have not been recorded. This does not mean that patients undergoing operations did not experience post-operative infections, but the patients were at

[296] Lind, B. (1953). *Retningslinjer for anestesiarbeidet ved et norsk feltsykehus. Rapport fra anestesilegen ved NorMASH* (Guidelines for anaesthesia at a Norwegian field hospital. Report from the anaesthesiologist). Riksarkivet (National Archives of Norway) RAFA-3422. Oslo: Forsvarets sanitet.
[297] Klingsheim, P. (2015). Oral story.
[298] Hartvigsen, H. (1955). Op. cit., p. 8.
[299] Hjort, E. (1954). Op. cit., pp. 612–613.
[300] Apel, J. P. (1998). Op. cit., pp. 161, 166.
[301] Lind, B. (1953). Op. cit.
[302] Mathisen, M. and Hafner, J. (1941). Op. cit., p. 268.
[303] Hartvigsen, H. (1954). Op. cit.

NORMASH for too short a time for post-operative infections to manifest themselves. The practice of letting a theatre nurse remain unsterile and handle instruments using only forceps when she had to assist two or more surgeons during an operation was not new - it was described in the textbook from 1926 – but the practice had been abandoned because it compromised the aseptic status of the operation theatre.[304] Now, at NORMASH, it was used when there was a shortage of theatre nurses. Was this perhaps an example of lifesaving taking precedence over aseptic conditions at NORMASH? There was also use of antibiotics and vaccinations, including, among other things, the tetanus vaccine.[305] However, the administration of antibiotics and vaccinations did not exclude aseptic techniques and painstaking debridement.[306] The nurses did not lower hygiene standards but maintained them and increased their efforts because of the absent aseptic conditions.[307]

The work in the operation theatre at NORMASH was always unpredictable. It was necessary to take the patients as they came. In such a situation, the nurses and surgeons had to trust in one another's competence. Surgeon and Chief of Hospital Hjort's descriptions of his operation on an arteria hypogastrica from two different angles and the quick reaction and readiness of the theatre nurses that assisted him are an example of the interdependence between nurse and surgeon in surgical treatment. Hartvigsen's discussion of the medical treatment of shock and the phenomenon of anxiety in the patient shows two things. One is the communication in the therapeutic team over new medical issues such as how to treat shock. The other is the attention paid to the patient's experience of illness and insecurity. Empathy for the patient and acknowledgment of the patient's perception are interwoven with the actual procedure and cannot be separated from nursing practice.[308] Klingsheim points out that clinical observation is not the same as observing. It is clinical practice to monitor the patient's state and note when it is necessary to take action[309] Isaksen's statement "the same as at home" is also a statement pointing forward. The Korean War led to mass training in the treatment of trauma patients, and new surgical methods and wound debridement were introduced. Practice improves skills.[310] The surgeons from NORMASH were the leading war surgeons for

[304] Widerøe, S. (1926). Op. cit.
[305] Wüller, R. (1952). Op. cit.
[306] Borch-Johnsen, E. (1953). Op. cit.
[307] Årdalsbakke, Inga. (2012). Oral story.
[308] Nordtvedt, P. (2008). Op. cit., pp. 62–63.
[309] Ibid., pp. 66–67.
[310] Johansson, I. and Lynøe, N. (2008). *Medicine & Philosophy.* Heusenstamm: ontos verlag, p. 159.

years.[311] In addition, the nurses brought home their experience and improved skills and introduced it into Norwegian nursing.[312] This will be discussed in chapter 5.2.

5.1.3 Wartime nursing

In the two previous subchapters, the running of and clinical practice at NORMASH were discussed. These were based on nursing traditions from Norway and built on the same skills as in peacetime. The nurses were able to transfer their civilian practice to war and continue with principles that were familiar to them.[313] In this subchapter, another part of Norwegian nursing tradition will be discussed – humanitarian wartime nursing – and the ways in which NORMASH differed from military nursing in wartime, together with the war context and the interaction with civilian society.

Beginning in 1912, Norwegian nursing developed a tradition of sending ambulances to conflict areas, organised by the humanitarian organisation the Red Cross.[314] Norwegian humanitarian ambulances prior to the Korean War, such as those in Ethiopia in 1936, had given rise to a new experience. An ambulance in a war zone could not dismiss responsibility for civilians. Civilians suffered as a result of epidemic disease, malnourishment and weapons such as gas – suffering that could be remedied and thus could not be ignored by a humanitarian ambulance.[315]

The Korean War illustrates the changes in warfare during the 20th century, where the boundaries between the war and civilian society were blurred. In the First World War, 95% of casualties were military and 5% were civilian. This ratio changed during the Second World War to 52% military and 48% civilian. In the Korean War, the greater part of the casualties were civilian: 60% were civilian and 40% were military.[316]

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[311] Arstad, S. (2017). Knivskarp operasjon. *Forsvarets forum.* https://forsvaretsforum.no/land/knivskarp-operasjon/103374 (Visited 20.11.20.)
[312] Lockertsen, J.-Th. and Fause, Å. (2017). Op. cit.
[313] Wyller, I. (1990). Op. cit., p. 249.
[314] Lockertsen, Fause and Hallett. (2020). The Norwegian Mobile Army Surgical Hospital in the Korean War (1951–1954): Military Hospital or Humanitarian "Sanctuary?" *Nursing History Review* 28, pp. 100, 93–126. Ibid., p. 98. (The First Balkan War (1912–1913); The Finnish Civil War (27 January 1918 – 15 May 1918); the Second Italo-Ethiopian War (1935–1936); The Winter War between Finland and Soviet Union (30 November 1939 – 13 March 1940).)
[315] Ulland, G. (1936). *Under Geneferkorset i Etiopia.* Oslo: H. Aschehoug & Co. (W. Nygaard), p. 21. Mageli, E. (2014). *Med rett til å hjelpe. Historien om Norges Røde Kors.* Oslo: Pax Forlag A/S, pp. 150–152.
[316] Rosén, L. and Aabakken, L. (1997). *Håndbok i krigskirurgi.* Oslo: Forsvarets sanitet, p. 194.

The rights of a civilian in war are rooted in the Geneva Convention of 1864 (and the Battle of Solferino of 1859), which states that injured persons have the right to medical help. Lessons learnt from wars after 1864 led to rights being assigned to more groups. The Fourth Geneva Convention, of 12 August 1949, stated the rights of civilians to be protected and receive help.[317] The term "civilian" is contrasted with "military". The historian Gunner Lind says this originates from the time when Europe had standing armies. The term "civilian" replaced the ancient term "innocent". A civilian was an innocent in a war. Children, women and non-combatant men were innocent and should be spared.[318]

NORMASH interacted with Korean civilians on many levels, and nurses as well as other personnel at NORMASH came to have a very strong sense of responsibility for the treatment of patients and hiring them as a workforce, and later for the training and education of nurses.[319] During the planning for NORMASH, Korean civilians were intended to be employed as part of the workforce.[320] The reality of the Korean War, in which there were stray children and orphans, resulted in immediate action to help them. One way of helping them was to employ them to carry out menial tasks in the tents where personnel lived.

The employment of children was a private initiative and a practical response to a humanitarian catastrophe. The nurses and other staff at NORMASH understood very well the sufferings of children in war. They saw it, and understood that children on their own, without grown-ups to take care of them, might starve and die.[321] Employing them was a way of helping them find shelter and food. Many of the "field hospital Koreans", as the civilian workforce was known, were familiar to several contingents at NORMASH. Many friendships

[317] Mageli, E. (2014). *Med rett til å hjelpe. Historien om Røde Kors.* Oslo: Pax Forlag, pp. 15–16.
[318] Lind, G. (2014). Genesis of the Civilian in the Western World, 1500–2000. In: Lind, Gunner (ed.) *Civilians at War: From the Fifteenth Century to the Present.* Copenhagen: Museum Tuskulum Press, pp. 47–82.
[319] Hartvigsen, H. (1954). Op. cit. Lockertsen, Fause, Hallet and Brooks. (2015). The Norwegian Mobile Army Surgical Hospital: Nursing at the front. In: Brooks, J. and Hallett, C. E. *One Hundred Years of Wartime Nursing Practices, 1854-1953.* Manchester: Manchester University Press, pp. 232–253.
[320] Paus, B. (ed.). (1955). Op. cit., p. 41.
[321] Semb, G. (1952). Brev fra Namsosdame i Korea, 'Barn uten foreldre, heim og mat. Barmhjertighetens arbeid mellom nød, blod og lidelse'. *Nordtrønderen og Namdalen.* Avisa er gått inn. Utklippet er hentet fra Rannei og Gotfred Rekkebos privatarkiv. Det er ikke datert, men avisen skriver at Sembs reiseskildring er datert fra mai og frem til 7. november 1951 (Letter from lady from Namsos in Korea, 'Orphan children, home and food. Humanitarian work). Ottestad: Migrasjonsmuseets arkiv.

were formed.[322] One of "the boys" from NORMASH, "Archie" (Chul-Ho Lee), settled in Norway and became well-known in Norwegian society.[323]

"Archie" (Chul-Ho-Lee) and nurse Kari Roll Klepstad

With the kind permission of Kari Roll Klepstad

Several Korean civilians were employed on the sick wards. The nurses at NORMASH clearly differentiated between tasks that required nursing knowledge and practical tasks that could be performed according to instructions. Rinsing wounds, administering medication and blood transfusions were practices that required a nurse's competence and were not to be delegated to orderlies or Korean civilians, according to Klingsheim.[324] But there was one exception.

Knowledge of every instrument and its use, together with knowledge of maintenance and storage, has been highlighted as being among the knowledge in theatre nursing. This was also

[322] Klingsheim, P. (2015). Oral story.
[323] Aftenposten. (8 April 1954). Oslogutt tar liten koreaner med hjem for å la ham få legebehandling (Lad from Oslo brings home a small Korean to let him receive medical treatment). *Aftenposten*, p. 8. Eide, Ole Kåre. (2008). Happy Lee. *Forsvarets forum*, 6. Reproduced in: Bakke, F. (ed.) (2010). Op. cit., pp. 73–77. 'Archie' Lee var i Norge kjent som 'Nudelkongen'. Han gikk bort i 2018 ("Archie" Lee was known in Norway as "the Noodle King". He passed away in 2018).
[324] Klingsheim, P. (2015). Oral story.

a central learning goal for nursing pupils during practice in the operation theatre.[325] At NORMASH, Korean civilians were taught how to prepare packets of instruments according to lists and under the supervision of a nurse, and it worked very well.[326] Packing instruments is an early example of a nursing task not related to caring for patients during surgery that could be delegated to personnel without any specialised nursing training.

During most of the mission in Korea, 20% of the hospital beds were reserved for Korean civilians. NORMASH had its own polyclinic for Korean civilians. When it was quiet at the front, operation teams of surgeons and theatre nurses went to Seoul to operate on civilian patients at Korean civilian hospitals.[327] After the armistice in July 1953, NORMASH was able to treat more civilians and hospitalise patients for longer periods.[328] As a consequence, it started to train Korean nurses.[329] All nurses at NORMASH were obliged to teach and train Korean nurses. Towards the end, several Korean nurses had independent evening and night watches.[330]

The nurses' and surgeons' personal engagement in giving aid to civilians during the Korean War is not exclusive to NORMASH. The same procedures can be seen in U.S. MASHes at the frontline, with spontaneous aid to civilians and concern for their future, and the arrangement of relief funds and collection of clothing.[331] Why did nurses and surgeons do this, regardless of nationality? The answer may be the humanitarian side of nursing and medical work and nurses' training in caring and relieving pain and distress.

5.2 Post-Korean War Benefits and Changes in Nursing and Theatre Nursing

The second overall aim of this study was to explore the impact of the Korea Sisters' efforts on Norwegian nursing and theatre nursing after the Korean War.[332] How did it change nursing and theatre nursing, and did the nurses' experience have an impact on Norwegian nursing after the Korean War?

[325] Marthinsen, M. and Haffner, J. (1941). Op. cit., pp. 257, 265.
[326] Klepstad, K. R. (2011). Oral story.
[327] Paus, B. (ed.). (1955). Op. cit., p. 68.
[328] Paus, B. (ed.). (1955). Op. cit., p. 27.
[329] Hartvigsen, H. (1954). Op. cit.
[330] Heide, I. S. (1955). Op. cit.
[331] Sarnecky, M. T. (1990). Op. cit., p. 316. Horwitz, D. G. (1997). Op. cit., p. 113. Apel, O. F. and Apel, P. (1998). Op. cit., p. 53.
[332] The Norwegian nurses who served at NORMASH were nicknamed "the Korea Sisters". (Lockertsen and Fause. (2017). Op. cit.)

5.2.1 Expansion of theatre nursing practice

Tactical changes in the war and the fixed frontline along the 38th parallel had turned the MASHes into stationary field hospitals 15 to 30 kilometres from the front at the time NORMASH was deployed to Korea in 1951. This did not change the medical purpose of a MASH with early definite treatment. Advanced weaponry, shrapnel from artillery and landmines, and high-velocity projectiles still caused severe trauma to humans that required surgical treatment by trained operation teams. Because of the proximity to the battlefield, traumatised soldiers that in previous wars would have been dead upon arrival survived with the medical treatment given at NORMASH and the other MASHes at the front.

NORMASH performed surgeries of almost every kind: abdominal surgery, thoracic surgery, pulmonary surgery, arterial repair with vein graft to reestablish blood circulation in a damaged limb, orthopedic surgery with the nailing of fractures and plastic operations in soft tissue. The only exception was neurosurgical operations, which were performed only if weather and darkness prevented transportation of the wounded to MASHes specialising in neurosurgery.[333] This was confirmed by theatre nurse Margot Isaksen, who assisted during an emergency neurosurgical operation at a time when transportation was not possible.[334]

As there was no fixed operating programme at NORMASH, it was impossible for the theatre nurses to know what kind of operation they were going to do next during rushes, and patients were constantly being transported in and triaged and sent to the operation theatre for operations. Preparing instruments by autoclaving them the evening before the operation or in the morning was not possible. Instead, instruments were kept sterile for use at all times, and boxes with complete sets of instruments for abdominal surgery and thoracic surgery were made ready and kept at hand for emergency surgery at any time. Boxes with complete sets of instruments for emergency surgery were not described in Norwegian textbooks until 1960.[335]

In addition to new techniques that expanded the scope of theatre nursing, the theatre nurses and nurses at NORMASH gained experience in receiving up to several hundred injured people during rushes and following them through triage, pre-operative preparation, operation

[333] Hartvigsen, H. (1954). Op. cit.
[334] Isaksen, M. (2012). Oral story.
[335] Olaussen, T. (1960). Arbeidet i operasjonsstuen [The work in the operation theatre] In: Jervell, A. (ed.) *Lærebok for sykepleiere*, Bind 5. Oslo: Fabritius og Sønners Forlag, p. 48.

and then post-operative nursing. Several of the nurses at NORMASH were associated with the Norwegian Armed Forces Medical Services as reservists after the Korean War. Their experience of nursing practice at a surgical field hospital, mass evacuation of casualties both with ground ambulances and medevac with helicopters, field hygiene in war and also welfare work among patients meant that as reservists they were able to participate in training new nurses and pass on knowledge acquired during the Korean War.[336]

5.2.2 Nurse anaesthetist and pre-hospital treatment

Theatre nurses functioned as anaesthetists in Norwegian operation theatres until 1947, when anaesthesiology was approved as a medical specialisation.[337] All theatre nurses were cross-trained in anaesthesia, and many of them were highly skilled in their trade and valued for their clinical skills. But something was missing: they needed a deeper knowledge of anaesthesia and its effects on the body, and, as a group, they were able, to varying extents, to use the more advanced methods that were needed for advanced surgery.[338]

The Korean War, with the MASHes placed close to the battlefield, had shown the value of minimising the time between incident and treatment. The most severely wounded were transported by helicopter.[339] Swift transportation ensured early surgical treatment that lowered mortality. To meet the need for correct treatment, more advanced knowledge was necessary. The advanced knowledge needed in order to assist during pulmonary and heart surgery could build on the knowledge that theatre nurses already had. Conducting anaesthesia for this type of advanced surgery demanded an education beyond the education that theatre nurses already had, however, and paved the way for a new nursing specialty: nurse anaesthetist.[340]

The nursing during the Korean War acted as a catalyst in intensifying the process of the nurse anaesthetist becoming an autonomous nursing specialty, as opposed to a subdivision of theatre nursing.[341] Educated nurse anaesthetists were needed to meet the need for specialised knowledge of anaesthesia brought about by progress in surgery and the new opportunities for

[336] Dale, T. (1963). Op. cit., pp. 26, 36–37, 40, 54.
[337] Lockertsen, J.-Th. and Fause, Å. (2017). Op. cit.
[338] Lund, Ivar. (1948). Anestesi – en ny spesialitet. *Tidsskrift for Den norske lægeforening,* 3, pp. 43–44.
[339] Rekkebo, G. (1951). Op. cit., Notation of 22. September.
[340] Lockertsen, J.-Th. and Fause, Å. (2017). Op. cit.
[341] Henningsen, A. (1951). Op. cit., pp. 35–36.

early treatment in hospitals and pre-hospital treatment that arose as a result of the field hospitals' proximity to the battle zone and the introduction of medevac by helicopter during the Korean War.

Helicopters were introduced in the Korean War to rescue pilots downed behind enemy lines. The helicopters were soon tasked with the evacuation of causalities from the battlefield.[342] The "'copters" used for medevac in Korea were small and not designed for medevac.[343] This paved the way for a medical invention known to everyone who has taken a course in basic first aid.

Bell H-13 Sioux helicopters at NORMASH

Reproduced by the kind permission of Rigmor Brochman Bye

Patients were carried on the two external casualty stretchers attached to the side or at the skids of the helicopters. If a medical attendant followed, he would be in the crew cabin with the pilot. This left the patient unattended outside the cabin. Patients with maxillofacial injuries in the back position risked aspiring blood and fluid and vomiting or even swallowing their own

[342] Kirkland, R. C. (2009). *MASH ANGELS: Tales of an Air-Evac Helicopter Pilot in the Korean War.* Short Hills, NJ: Burford Books. Driscoll, Robert S. (2001). Op. cit., pp. 290–296.

[343] During the Korean War, helicopters were nicknamed "'copters". Later they became known as "choppers", but that name was not known or used during the Korean War. (Apel, J. P. (1998). Op. cit.)

tongue when unconscious. To avoid this, pilots or medics started to turn patients on their side to a prone position. This was the recovery position.[344] The recovery position had been described before the Korean War but it was not commonly used. A Norwegian military first aid manual from 1951 recommended that helpers turn the patient's head to the side if the patient was vomiting when unconscious.[345] In 1961, we find military first aid manuals that describe the recovery position as the recommended procedure after securing free airways in an unconscious patient.[346] Today, the recovery position as practised in the Korean War is standard procedure in all first aid manuals.

Medevac by helicopter started when the war had settled into trench warfare. In the moving part of the war, the MASHes with their great mobility came to the patient. Now, in trench warfare, helicopters transported patients to the stationary field hospitals that the MASHes had become, as well as between the field hospitals along the 38th parallel. In this way, they could utilise the medical expertise of the different MASHes as the MASHes became more specialised, or they could help each other out if technical devices broke down.[347] Bigger cargo helicopters were used for transporting up to eight litter patients to evacuation hospitals further behind the front, and with these helicopters other opportunities arose. With sufficient space, acute pre-hospital medical treatment could be carried out during transportation.[348] The use of helicopters for rescue and emergency medical services in today's Norwegian acute medicine is a direct consequence of the use of helicopters in Korea.[349]

5.2.3 A Scandinavian hospital in South Korea

The National Medical Centre (NMC) opened in Seoul on 2 October 1958. The NMC was a training hospital owned and run by the Scandinavian countries of Sweden, Denmark and Norway. The hospital was part of an effort to provide South Korea with a medical

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[344] Lind, B. (2015). Oral story. Neel Jr., Sh. (1954). Medical Considerations in Helicopter Evacuation. *United States Armed Forces Medical Journal*, 5(2), pp. 220–227. For the prone position for securing free airways, see p. 225.

[345] Florelius, S (ed.). (1951). *Lærebok i militær helselære og førstehjelp.* Oslo: Forvarets sanitet, p. 138.

[346] Dale, T (ed.). (1961). *Lærebok i militær helselære og førstehjelp: Forbindingslære og førstehjelp*, pamphlet 4. Oslo: Forsvarets sanitet, pp. 17, 48.

[347] Horwitz, D. G. (1997). *We Will Not Be Strangers: Korean War Letters Between a M.A.S.H. Surgeon and His Wife.* Urbana and Chicago: University of Illinois Press. Letter of 13 August 1952. p. 55.

[348] Smith, A. D. (1952). Medical Air Evacuation in Korea and Its Influence on the Future. *The Military Surgeon*, 110(5), pp. 323–332.

[349] NOU 1998:8. (1998). *Luftambulansetjenesten i Norge.* Oslo: Helse- og omsorgsdepartementet.

infrastructure and rebuild the South Korean health-care system after the Korean War. The hospital remained Scandinavian until 1968, when ownership of the NMC was transferred to South Korea.[350] The teaching hospital was the result of a plan that took form on the initiative of the government of Denamrk before NORMASH became an active unit in the Korean War in July 1951.[351]

According to historian Kjetil Skogrand, leading Norwegian politicians understood the need for reconstruction in Korea after the war because of Norway's own reconstruction needs after five years of occupation.[352] In a formal meeting with the United Nations Korean Reconstruction Agency (UNKRA), a plan for a joint venture was preliminarily agreed upon. In the joint committee from the Scandinavian countries, Norway was represented by Karl Evang, the Norwegian Health Director, and Carl Semb.[353] The agreement on "the peace hospital" was formally signed in 1955.[354] This was two years after the armistice and one year after NORMASH was disassembled in 1954.

Fifty-one Norwegian nurses, out of a total of 164 Scandinavian nurses, worked at the NMC. Ten of these – nine nurses and one deacon – were veterans of NORMASH.[355] A book co-written by a former surgeon at NORMASH was prepared as an introduction to conditions in Korea for nurses and physicians who were unfamiliar with Korea[356]

Travelling was not a novelty for Norwegian nurses. Many nurses had been missionary nurses and engaged in educating nurses abroad.[357] But the work at the NMC was something else. This was a civilian engagement for the Korean people, humanitarian aid in response to a catastrophe and not a vocation as a missionary nurse or a wartime nurse. The purpose was to

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[350] Bjørnsson, J., Odelberg, A., Koch, J. H. and Okkenhaug, K. (1971). *The National Medical Center in Korea: A Scandinavian Contribution to Medical Training and Health Development 1958–1968.* Oslo: Universitetsforlaget.

[351] Steen, E. (1952). Forord av presidenten i Norges Røde Kors. In: Nilsen, Ragnar Wisløff (ed.) *Med Røde Kors i Korea.* Stavanger: Misjonsselskapets Forlag, pp. 7–8.

[352] Skogrand, K. (1994). Op. cit., pp. 147–150.

[353] Nilssen, R. W. (1952). Op. cit., pp. 174–184. Nilssen gives much credit to Carl Semb, who had a firm grip on the situation and therefore laid good plans for the future.

[354] Bjørnsson, J. (1964). *National Medical Center. Past – Present – Future.* Lecture by Dr Jon Bjørnsson, Chief of the Scandinavian Mission, on a Korean head nurses' leadership course in April 1964. *Rannei og Gotfred Rekkebos privatarkiv*, boks 3. Ottestad: Migrasjonsmuseets arkiv.

[355] Bakke, F. (ed.). (2012). Op. cit., pp. 84, 94–96.

[356] Buer, L., Holthe, K. and Nilssen, R. W. (1958). *Litt av hvert om Korea. En kort innføring i koreanske forhold.* Oslo: Undervisningssykehuset i Korea.

[357] Erikstein, E. (2005). Op. cit.

help Korea educate and train its own nurses and doctors. This joint venture of the Scandinavian countries is also the oldest example of Nordic co-operation.[358] By the Scandinavian Board of NMC, it was named *"...a unicue experiment in international good-will and cooperation.*[359] Between 1958 and1970, two hundred and twenty-three nurses were educated at the School of Nursing at the NMC.[360] The NMC is still an active hospital in Seoul, South Korea, but it is now a fully owned Korean hospital

[358] Frydenlund, K. (1966). *Norsk utenrikspolitikk i etterkrigstidens internasjonale samarbeid.* Oslo: «Tidens ekko», NUPI, p.112.
[359] The Scandinavian Board. (1966). *Facts about the Establishment and Operation of The National Medical Center in Korea and Related activities.* Oslo: The Scandinavian Board. p. 22.
[360] Bjørnsson, J. et al. (1971). Op. cit., p. 91.

6 Conclusion and Further Perspectives

The Korean War has been referred to as "the Forgotten War".[359] Work with the sources shows that the Norwegian nurses' practice at NORMASH during the Korean War may be an untold story, but the footprints of the Norwegian nurses and the impact of their efforts during the Korean War can clearly be found in Norwegian nursing after the Korean War, and they are not forgotten.

The aim of this dissertation has been to explore and document Norwegian nurses' clinical practice in the combat zone of the Korean War and the impact of their efforts on Norwegian nursing and theatre nursing. How did this change nursing and theatre nursing?

The Korean War had settled into a trench war along the 38th parallel by the time NORMASH entered the Korean War theatre. Waves of aggression from North Korea and counterattacks by the UN army had ruined the infrastructure of Korea. In this dissertation, the history is told of the Norwegian nurses, who were all civilian volunteers in the midst of a gruelling war.

Norwegian nursing traditions can be identified in the nursing leadership at NORMASH. Structures that constitute routines for nursing in wartime are similar to those in peacetime and it is just as necessary to ensure that nursing is properly administered. Plans for round-the-clock work have to be made for the individual care of patients, the operation room must be prepared for surgery, surgeons must be assisted during operations and post-operative patients need to be monitored.[360] The nurses worked according to familiar routines that they knew from Norwegian nursing tradition.[361] Most of the orderlies lacked knowledge of nursing and were unqualified to serve at a field hospital. Preparing and training orderlies became an important part of the nurses' work.

As a case study, the study of NORMASH can give us insight into central practice traditions in theatre nursing and the interaction and cooperation between nursing and medicine in theatre

[359] Ness, E. (2016). *The Forgotten War.* Retrieved March 2019 from: eilifness.no: http://eilifness.no/?p=75
[360] Hamran, T. (1992). Op. cit., pp. 52–54. Hallett, Ch. E. (2009). *Containing Trauma: Nursing Work in the First World War.* Manchester: Manchester University Press, pp. 92–93.
[361] Hartvigsen, H. (1954). Op. cit.

Like all branches of nursing, the actual handicraft is articulated to only a very limited extent. But behind terms such as "instrument tables" and "assisting", we find a living community of practice in which theatre nurses have cooperated closely in teams with surgeons in operating on patients. Time being of the essence in trauma and war surgery is highlighted in the traditions of being prepared and knowing one's own role in the surgical team and knowing one's own subject.[364]

The reality of the war in Korea, with more civilian than military casualties, brought NORMASH into extensive contact with the Korean people. Employing children for menial tasks was a practical solution in a humanitarian catastrophe. A polyclinic for Korean civilians was an important function at NORMASH. Twenty percent of the beds at NORMASH were reserved for Korean civilians. The nurses at NORMASH trained Korean civilians to support the nurses in logistical work not related to patient nursing. After the armistice in July 1953, Korean civilians were accepted as students at NORMASH to receive more formal training as nurses to support the reconstruction of South Korea's own health-care system.

Nursing at NORMASH led to the expansion of Norwegian theatre nursing thanks to the development and refinement of surgical techniques and the undiluted roles of theatre nurse and nurse anaesthetist in the Norwegian operation theatres. Treatment of shock, vessel surgery and the debridement of wounds and delayed primary closure were surgical techniques that were further developed during this war. Theatre nurses and surgeons incorporated these new techniques into their practical skill sets without having any prior training in war surgery. Packing boxes with standard packets of instruments for surgery that were sterile and ready for emergency surgery were introduced to Norwegian nurses during the Korean War and later introduced into Norwegian theatre nursing. The practice at NORMASH trained nurses to be a valuable part of Norwegian total readiness, and nurses who had served at NORMASH passed their experience on to new nurses through courses and as reservists in the army.

The proximity to the combat zone and the utilisation of helicopters for ambulance transport also had an impact on Norwegian theatre nursing and nursing. The early reception of severely wounded patients emphasised the need for theatre nurses who could concentrate on surgical intervention and nurses who could concentrate on conducting anaesthesia, as opposed to

[364] Hjort, E. F. (1991). Op. cit. pp. 86-89.

theatre nurses being cross-trained in anaesthesia in order to fill both roles. As such, the experiences in Korea served as a catalyst to speed up the division of theatre nursing into two nursing specialties: theatre nursing and nurse anaesthetist. The use of helicopters in today's rescue service and pre-hospital treatment is a direct consequence of the use of helicopters during the Korean War. Also, when transporting patients with maxillofacial fractures, the practice of putting the patient in the recovery position on the skids of the helicopters to avoid choking led to the use of the recovery position becoming a standard procedure in first aid manuals.

NORMASH was formally an army unit in a UN peace-enforcing action to stop aggression by North Korea against South Korea. Nevertheless, there was a prominent humanitarian side of the action, including aid to the Korean people, according to known contemporaneous writings by nurses and from oral stories related in retrospect. The nurses were very familiar with the plans to establish a joint Scandinavian university clinic, which became a reality in 1958 and was led by the Scandinavian countries until 1968. The National Medical Centre is still an active hospital in Seoul, South Korea.

NORMASH was the first international assignment for Norwegian nurses after World War II, and one may conclude that the hospital was a medical and humanitarian success in its time.

There remain perspectives to explore regarding the service in Korea and the impact on clinical practice afterwards.

The 111 nurses at NORMASH lived in a male society and seem to have been commissioned as officers on equal terms with surgeons. This thesis does not explore the gender question at NORMASH. There were not enough male nurses in the period 1951 to 1954 to fill the nurse positions at NORMASH.[363] And nurses had been seen since the Crimean War, selected for their competence and not their sex.[364] However, the question of the full implications of being women and officers in a male society during a war and whether the efforts of the nurses at NORMASH changed the gender roles in the Norwegian Army Medical Services in any way still need to be researched.

[363] Andresen, R. (1955). Op. cit., p. 82.
[364] Helmstadter, C. (2020). Op. cit., p. 310.

The interaction and cooperation between nursing and medicine in theatre nursing can be approached as a case study at NORMASH. Theatre nurses and surgeons trusted in one another's competence and acquired new skills that were implemented in Norwegian civilian medicine after the Korean War. The interaction and cooperation between theatre nurses and surgeons after the Korean War has not yet been researched.

The National Medical Centre in Seoul, South Korea was run by the Scandinavian countries for 10 years, between 1958 and 1968. During this period, 223 nurses were educated at the NMC. The cooperation between nurses from Denmark, Sweden and Norway at the NMC has yet to be explored and documented. The impact of the Scandinavian nurses' efforts on Korean nursing also has yet to be explored and documented.

Works cited

Adriansen, K. K. (2015, Juni 12). Et kvinneyrke tar form. Sykepleie i Rogaland 1870-1970. *Ph.D. Dissertation*. Bergen: Universitet i Bergen.

Aftenposten. (1951, oktober 27). Feltsykehuset i Korea får den høyeste ros., p. 4.

Aftenposten. (1951, april 16). Feltsykehuset til Korea., p. 2.

Aftenposten. (1954, april 8). Oslogutt tar liten koreaner med hjem for å la ham få legebehandling., p. 8.

Anderton, G. (1953). The Birth of the British Commonwealth Division, Korea. *Journal of the Royal Army Medical Corps, 99*(2), pp. 43-54.

Andresen, A., Rosland, S., Ryymin, T., & Skålevåg, S. (2015). *Å gripe fortida* (2. utgåva. utg.). Oslo: Det Norske Samlaget.

Andresen, R. (1952). Noen bemerkninger fra Oversøster ved Nor MASH, angaaende [Some remarks from Head Nurse at Nor MASH, regarding]:. *Riksarkivet [The national Archives of Norway] RAFA-3422*. Oslo: Forsvarets sanitet.

Andresen, R. (1954, mai 4). Artikkel angående norske sykepleiersker i Korea, manuskript sendt Lottebladet [Article regarding Norwegian nurses in Korea, sent to the periodical Lottebladet]. *Riksarkivet [The National Archives of Norway] RAFA-3422*. Oslo: Forsvarets sanitet.

Andresen, R. (1955). Sykepleiersker. I B. (. Paus, *Det norske feltsykehus i Korea "NORMASH" 1951-1954* . Oslo: Forsvarets sanitet., pp. 79-82

Andresen, R. (1986). *Fra norsk sanitets historie: Kvinners innsats i militær sykepleie.* Oslo: NKS-Forlaget.

Apel, J. P. (1998). A Window of Opportunity: A History of the Mobile Army Surgical Hospital in the First Half of the Korean War. *PhD Dissertatiton*. Hattiesburg: The University of Southern Mississippi.

Apel, O. F., & Apel, P. (1998). *MASH: An Army Surgeon in Korea.* Lexington: The University Press of Kentucky.

Arntzen, A. (1926). Innledning [preface]. I Grøn, & Widerøe, *Lærebok i sykepleien*. Oslo: H. Aschehoug & Co (W. Nygaard)., pp. 1-9

Asbjørnsen, L. B. (1952). *Fjellet med de fallende blomster.* Oslo: Forlaget Land og Kirke.

Austgard, K., & Hovland, B. (2017). *RIkke Nissen I kamp og kjærlighet.* Oslo: Verbum Forlag.

Backer-Grøndahl, N. (1926). *Narkose og pleie av operationspatienter.* Oslo: Grøndahl & Søns Boktrykkeri.

Baker, M. S. (2016). Lead, Follow, or Get out of the Way - How bold Young Surgeons Brought Vascualr Surgery into Clinical Practice from the Korean War Battlefield. *Annals of Vascular Surgery, 33*, pp. 258-262.

Bakke, F. (2010). *NORMASH Korea i våre hjerter.* Oslo: Norwegian Korean War Veterans Association.

Benner, P. (1984). *From Novice to Expert.* California: Addison-Wesley Publishing Company.

Benner, P., Kyriakidis, P. H., & Stannard, D. (2011). *Clinical Wisdom and Interventions in Acute and Critical Care* (Second Edition. utg.). New York: Springer Publishing Company.

Bjønsson, J. (1964, April). National Medical Center. Past - Present - Future. *Lecure held by Dr. Jon Bjørnsson, Chief of the Scandinavian Mission at Korean Headnurses' leadership course(Rannei og Gotfred Rekkebos privatarkiv)*. Ottestad: Migrasjonsmuseets arkiv.

Bjørnsson, J., Odelberg, A., Koch, J. H., & Okkenhaug, K. (1971). *The national Medical Center in Korea. A Scandinavian Contribution to Medical Training and Health Development 1958-1968.* Oslo: Universitetsforlaget.

Borch-Johnsen, E. (1953). *Rapport pr. 31 mars 1953 fra Sjefen for Norsk Feltsykehus i Korea [Report of 31 March 1953 from the Chief of hospital at the Norwegian Field Hospital in Korea].* Riksarkivet |The National Archives of Norway] RAFA-3422. Oslo: Forsvarets sanitet.

Boschma, G., Davidson, L., & Bonnifacio, N. (2009). Bertha Harmer's 1922 textbook - The Principles and Practice of Nursing: clinical nursing from an historical perspective. *Journal of Clinical Nursing, 18*, ss. 2684-2691.

Boschma, G., Scaia, M., Bonnifacio, N., & Roberts, E. (2008). Oral History Reserach. I B. Sanda, & E. K. Herrmann, *Capturing Nursing History* (New York: Springer., pp. 79-83, cited from p. 79 and p. 83.

Brooks, J., & Hallett, C. E. (2015). *One Hundred Years of Wartime Nursing Practices, 1854-1953.* Manchester: Manchester University Press.

Brunk, Q. (1997). Nursing at War: Catalyst for Change. *Annual Review of Nursing Research, 15*, pp. 217-236.

Buer, L., Holthe, K., & Nilsen, R. W. (1958). *Litt av hvert om Korea. En kort innføring i koreanske forhold.* Oslo: Undervisningssykehuset i Korea.

Cowdrey, A. E. (2005). *The Medics' War.* Honolulu: University Press of the Pacific.

Cowdrey, A. E. (2014, Jan/Feb). MASH vs M*A*S*H: The Mobile Army Surgical Hospital. *Medical Heritage, 1*(1), pp. 4-11.

Dahl, M. (2015). Moving Forward: Australian flight nurses in the Korean War. I J. Brooks, & C. E. Hallett, *One Hundred Years of Wartime Nursing Practices* . Manchester: Manchester University Press., pp. 254-277

Dale, T. (. (1963). *Håndbok i sanitetstjeneste for sykepleiersker.* Oslo: Forsvarets sanitet.

Dale, T. (1961). *Lærebok i militær helselære og førstehjelp: Forbindingslære og førstehjelp. Hefte 4.* Oslo: Forsvarets sanitet.

Dale, T. (1963). *Håndbok i sanitetstjeneste for sykepleiersker.* Oslo: Forsvarets sanitet.

Den utvidete utenriks- og konstitusjonskomité [The Enlarged Comitee on Foreign Affairs and Defence]. (1951, august 23). *Redegjørelse fra forsvarminister Hauge om å stille norske tropper til rådighet i Korea.* Hentet fra https://www.stortinget.no/globalassets/pdf/stortingsarkivet/duuk/1946-1965/510823u.pdf

Den utvidete utenriks- og konstitusjonskomité [The Enlargeed Comitee on Foreigh Affairs and Defence]. (1951, oktober 23). *Utenriksminister Lange og forsvarsminister Hauge om Koreaspørsmålet.* Hentet fra https://www.stortinget.no/globalassets/pdf/stortingsarkivet/duuk/1946-1965/511023u.pdf

Driscoll, R. S. (2001). U.S. Army Medical Helicopers in the Korean War. *Military Medicine, 168*, pp. 503-513.

Duffin, J. (2010). *History of Medicine. A Scandalously Short Introduction* (Secon edition. utg.). Toronto: University of Toronto Press.

Egelien, N. (2010). Dagbok fra en vaktsoldat, desember 1952. In: F. Bakke, *NORMASH: Korea i våre hjerter*. Oslo: Norwegian Korean War Veteran Association. pp. 26-30.
Eide, O. K. (2008). Happy Lee. *Forsvarets Forum*(6).
Elstad, I. (2006). Sjukepleieyrket i Nord-Norge. I I. Elstad, & T. Hamran, *Sykdom i Nord-Norge før 1940*. Bergen: Fagbokforlaget. pp. 307-400.
Elstad, I. (2014). *Sjukepleietjenking.* Oslo: Gyldendal Akademiske.
Eriksten, E. (2005). *Diakon Gotfred Rekkebo - heimføding og verdensborger.* Dalen: Vest-Telemark prosti.
Farstad, A. (2016). *På liv og død. Sistriktsjordmødrenes historie.* Oslo: Samlaget.
Fause, Å. (2002). Sykepleie under okkupasjon. I Å. Fause, & A. Micaelsen, *Et fag i kamp for livet. Sykepleiens historie i Norge*. Bergen: Fagbokforlaget., pp. 197-211.
Fause, Å. (2017). Om fagtradisjoner og sykepleiehistorie som forskningsfelt. I Å. (. Fause, *Glimt fra sykepleiefagets historie*. Bergen: Fagbokforlaget., p. 17-26, cit. p. 22.
Fjære, A. (2010). Vaktsoldat i NORMASH. In: F. Bakke, *NORMASH: Korea i våre hjerter*. Oslo: Norwegian Korean War Veterans Association., pp. 21-25.
Florelius, S. (1951). *Lærebok i militær helselære og førstehjelp.* Oslo: Forsvarets sanitet.
Florelius, S. (1952). *Rapport fra Norges Røde Kors til Utenriksdepartementet om DET NORSKE FELTSYKEHUSET I KOREA.* Oslo: Norges Røde Kors.
Fonn, M. (2019, June 30). *Korea-sykepleier (99): Det var ikke tid til å være redd for å bli bombet.* Hentet fra Tidskriftet Sykepleien: https://sykepleien.no/2019/06/korea-sykepleier-99-det-var-ikke-tid-til-vaere-redd-bli-bombet
Forsvarets Mediesenter. (Produsent), Enstad-Karlsen, R., & Segelcke, T. (Regissører). (2010). *NORMASH. Det norske feltsykehuset i Korea* [Film].
Foss, U. (1991). Over til Korea. I L. U. Pedersen, *Norge i Korea*. Oslo: Huitfeldt Forlag AS., pp. 49-53.
Friedman, S. G. (2017, August). Korea, M*A*S*H, and the accidential pioneers of vascular surgery. *Journal of Vascular Surgery*.
Frydenlund, K. (1966). *Norsk utrenrikspolitikk i etterkrigstidens internasjonale samarbeid.* Oslo: "Tidens ekko", NUPI.
Gadamer, H.-G. (2003 [1957]). Hva er sannhet? I *Forståelsenes filosofi. Utvalgte hermeneutiske tekster* (H. Jordheim, Overs., ss. 7-15, sistert s. 8). Oslo: Cappelen Akademiske Forlag., pp. 7-15, cit. p. 8,
Gadamer, H.-G. (2003). *Forståelsens filosofi.* (H. Jordheim, Overs.) Oslo: J.W. Cappelenes Akademisk Forlag.
Gadamer, H.-G. (2003). Sannhet i humanvitenskapene. I *Forståelsens filosofi* . Oslo: Cappelen Akademiske Forlag. p. 11.
Gadamer, H.-G. (2010). *Sannhet og metode.* Oslo: Pax Forlag A/S.
Gjendem, S. (1975, januar 6). Brev til undervisningsleder Anne Simonsen, Sentralsykehuset i Tromsø. Tromsø: NSFLOS, Tromsø, lokalarkiv.
Gogstad, A. C. (1991). *Helse og hakekors.* Bergen: Alma Mater Forlag AS.
Grøn, K., & Widerøe, S. (1926). *Lærebok i sykepleien* (2. utgave. utg.). Oslo: H. Aschehoug & Co (W. Nygaard).
Grove, K., & Heiret, J. (2017). Å arbeide med munnlege kjelder. I L. Melve, & T. Ryymin, *Historikerens arbeidsmåter* (ss. 122-147). Oslo: Universitetsforlaget.
Gulbransen, K. (1956). *Gull og grønne skoger.* Bergen: J. W. Eides Forlag.
Hagemann, E. (2003 [1930]). Sykepleieskolens etikk. I K. Martinsen, & T. Wyller, *Eliabeth*

Hallett, C. E. (2008). "The Truth About the Past?" The Art of Working with Archival Materials. I S. B. Lewenson, & E. K. Herrmann, *Capturing Nursing History*. New York: Springer., pp. 149-158.

Hallett, C. E. (2009). *Containing Trauma.* Manchester: Manchester University Press.

Hallett, C. E. (2014). *Veiled Warriors. Allied Nurses of the First World War.* Oxford: Oxford University Press.

Hallett, C. E. (2017). *Nurses of Passchendaele.* Barnsley: Pen & Sword History.

Hallquist, D. L. (2005). Development in the RN first assistant role during the Korean War. *AORN Journal, 82*(4), pp. 644-647.

Hamran, T. (1992). *Pleiekulturen - en utfordring til den teknologiske tenkemåten.* Oslo: Gyldendal Norsk Forlag A/S.

Hartvigsen, H. (1954). Det norske feltsykehuset i Korea og dets arbeid blant sivilbefolkningen. Rapport til sjefssøster Forsvarets sanitet. *Riksarkivet [The National Archives of Norway] RAFA-3422*, 15-21. Oslo: Forsvarets sanitet.

Haarvik, O. (1951, september 13). Brev til Søster Ruth av 29 september [Letter to Sister Ruth of 29. September]. *Riksarkivet [The National Archives of Norway] RAFA-3422*. Oslo: Forsvarets sanitet.

Hatlen, J.F. (2020). *Historikerens kode.* Oslo: Universitetsforlaget.

Hårvik, O. (1951). Brev til søster Ruth [Letter to sister Ruth]. *Riksarkivet [The National Archives of Norway] RAFA-3452*. OSLO: Forsvarets sanitet.

Heide, I. S. (1955). *Brev/rapport fra Søster Inga Heide til Sjefssøster Andressen FSAN av 15 mai 1955 [Letter/report from Sister Inga Heide to Matron-in-Chief FSAN of 15 May 1955].* Riksarkivet [The National Archives of Norway] RAFA-3422. Oslo: Forsvarets sanitet.

Helle, K. (1955). Norsk feltprest i Korea. I *Agder bispedømmes årbok* (ss. 111-120).

Helmstadter, C. (2015). Class, gender and professional expertise: British military nursing in the Crimean War. In J. a. Brooks, *One Hundred Years of Wartime Nursing Practices, 1854-1953.* Manchester: Manchester University Press., pp. 23-41.

Henningsen, A. [. (1951, februar). Narkoseutdannelsen i Norge. *Tidsskriftet Sykepleien, 38*(2), pp. 35-36.

Henrichsen, H. (1952, Februar). Med norsk feltsykehus til Korea. *Sykepleien, 39*(3), pp. 62-68.

Hjort, E. F. (1952). Instruksjon for oversøster ved NORMASH [Instructions for Head Nurse at NORMASH]. *Riksarkivet The National Archives of Norway RAFA-3452*. Oslo: Forsvarets sanitet.

Hjort, E. F. (1952, juli 3). Rapport til Forsvarets sanitet [Report to the Royal Norwegian Army's Medical Services]. *Riksarkivet The National Archives of Norway RAFA-3452*. Oslo: Forsvarets sanitet.

Hjort, E. F. (1954, oktober 1). Abdominale krigsskader - erfaringer fra Det norske feltsykehuset i Korea. *Tidsskrift for Den Norske Lægeforening*. Vol. 74 (19), pp. 611-616.

Hjort, E. F. (1991). Fra det norske feltsykehuset i Korea. I L. U. Pedersen, *Norge i Korea*. Oslo: Huitfeldt Forlag AS., pp. 86-89, cit. p. 88.

Hooker, R. (1968). *MASH: A Novel About Three Army Doctors.* New York: HarperCollingsPublishers.

Horwitz, D. G. (1997). *We Will Not Be Strangers. Korean War Letters between a M.A.S.H Surgeon and his Wife.* Urbana and Chicago: University of Illinois Press.

Hvalvik, S. (2005). *Bergljot Larsson og den moderne sykepleien.* Oslo: Akribe.

Hvalvik, S. (2010). Historisk forskning og sykepleie. *Klinisk Sygepleje, 24*(4), pp. 31-41.
Hvoslef, A. (1951, november 17). Rapport til sanitetschefen [Report to General Surgeon]. *Riksarkivet The National Archives of Norway RAFA 3452*. Oslo: Forsvarets sanitet.
Imislund, T. (2010). Motorpool. I: F. Bakke, *NORMASH: Korea i våre hjerter*. Oslo: Norwegian Korean War Veterans Association., pp. 31-33.
Immonen, I. (2013). Nursing during World War II: Finnmark County, Northern Norway. *International Journal of Cicumpolare Health, 72*.
Isaksen, M. (2012, 11 27). Opplevelser ved NORMASH [Experiences at NORMASH]. (J.-T. Lockertsen, Interviewer)
Jervell, A. . (1941). *Lærebok for sykepleiersker. Bind 1-3.* Oslo: Fabritius og Sønners Forlag.
Johansson, I., & Lynøe, N. (2008). *Medicine & Philosophy.* Heusenstamn: ontos verlag.
Joys, M. (1948). *Erindringer.* Oslo: Cammermeyer Boghandel.
Kaldal, I. (2003). *Historisk forskning, forståing og forteljing.* Oslo: Det Norske Samlaget.
Kaldal, I. (2016). *Minner som prosesser - i sosial og kulturhistorie.* Oslo: Cappelen Damm Akademiske.
Karlsen, A. (2019, 03 23). *Arkiv i Nordland.* Hentet June 2019 fra Sigird Bugge - Organist og sykepleier: https://www.arkivinordland.no/forsiden/aktuelt/sigrid-bugge-organist-og-sykepleier.842836.aspx
King, B., & Jatoi, I. (2005). The Mobile Army Surgical Hospital (MASH): A Military and Surgical Legacy. *Journal of the National Medical Association, 97*(5), pp. 648-656.
Kirkland, R. C. (2009). *MASH Angels: Tales of an Air-Evac helicopter Pilot in the Korean War.* Short Hills NJ: Burford Books.
Kjeldstadli, K. (1999). *Fortida er ikke hva den en gang var* (2. utgave. utg.). Oslo: Universitetsforlaget.
Klepstad, K. R. (2011, 3 30). Opplevelser ved NORMASH [Experiences at NORMASH]. (J.-T. Lockertsen, Intervjuer), Kleppstad
Klingsheim, P. (2015, 1 28). Opplevelser ved NORMASH [Experiences at NORMASH]. (J.-T. Lockertsen, Intervjuer) Askøy.
Knutsen, P. (2018). Gjensyn med spørsmålet om metode: En kritisk vurdering av hypotetisk-deduktiv metode (HDM) sammnlignet med induksjonsdrevne problemstillinger (IdP). *Norsk Filosofisk tidsskrift, 53*(4), pp. 196-208.
Leif, R., & Aabakken, L. (1997). *Håndbok i krigskirurgi.* Oslo: Forsvarets sanitet.
Lewenson, S. B. (2008). Doing Historical Reserach. I S. B. Lewenson, & E. K. Herrman, *Capturing Nursing History* (ss. 25-43). New York: Springer Publishing Company.
Lie, T. (1954). *Syv år for freden.* Oslo: Tiden Norsk Forlag.
Lind, B. (1953). *Retningslinjer for anestesiarbeidet ved et norsk feltsykehus. Rapport fra anestesilegen ved NorMASH [Guidelines for anaesthesia at a Norwegian filed hospital. Report from the anaesthesiologist].* Riksarkivet [The National Archives of Norway] RAFA-3422. Oslo: Forsvarets sanitet.
Lind, B. (1964). Anestesisykepleierutdanningen i støpeskjeen. *Tidsskriftet Sykepleien, 51*(11), ss. 244-245.
Lind, B. (2015, 3 18). Opplevelser ved NORMASH [Experiences at NORMASH]. (J.-T. Lockertsen, Intervjuer) Fjellhamar.
Lind, G. (2014). Genesis of the Civilian inthe Western World, 1500-2000. I G. (. Lind, *Civilians at War. From the Fifteenth Century to the Present*. Copenhagen: Museum Tuskulum Press., pp. 145-166.

Lindseth, A., & Norberg, L. (2004, May 17). A phenomenogical hermeneutical method for researching lived experience. *Scandinavian Journal of Caring Science, 2*(18), pp. 145-153.

Lockertsen, J.-T. (2009). Operasjonssykepleie ved Troms og Tromsø Sykehus 1895-1974. *Master thesis, https://munin.uit.no/handle/10037/2008*, 85-88. Tromsø: Universitetet i Tromsø.

Lockertsen, J.-T., & Fause, Å. (2018). The Nursing Legacy og the Korea Sisters. *Nursing Open*(5), pp. 94-100.

Lockertsen, J.-T., Fause, Å., & Hallett, C. E. (2020). The Norwegian Mobile Army Surgical Hospital in the Korean War (1951-1954): Military Hospital or Humanitarian "Sanctuary?". *Nursing History Review, 28*, pp. 93-126.

Long, T. L. (2013). Nurses and Nursing in Literary and Cultural Studies. I P. D'Antonio, J. A. Fairman, & J. C. Whelan, *Routledge Handbook on the Global History of Nursing Research* (ss. 37-54). New York: Routledge.

Lund, I. (1948, februar). Anestesi - en ny spesialitet. *Tidsskrift for Den norske lægeforening*(3), ss. 43-44.

Luumis, T. (1998). Structure and validity in oral evidence. I R. Perks, & A. Thomson, *The Oral History Reader*. London: Routledge., pp. 273-283, cit. p 274.

Mageli, E. (2012). *Med rett til å hjelpe. Historien om Norges Røde Kors.* Oslo: Pax Foralg A/S.

Malakasian, C. (2001). *The Korean War, 1950-1953.* Oxford: Osprey Publishing.

Malm, O. J. (1991). *Forsvarets sanitet: 50 år under felles ledelse.* Oslo: Forsvarets sanitet.

Marble, S. (2014). Forward Surgery and Combat Hospitals: The Origins of the MASH. *Journal of the History of Medicine and Allied Sciences, 69*(1), pp. 68-100.

Marthinsen, M. (1941). Instrumentfortegnelse. In A. (. Jervell, *Lærebok for sykepleiersker, Bind 1*. Oslo: Fabritius og Sønners Forlag AS., pp. 360-370.

Marthinsen, M., & Haffner, J. (1941). Pleie ved kirurgiske sykdommer. I A. (. Jervell, *Lærebok for sykepleiersker Bind 1*. Oslo: Fabritius og Sønners Forlag. pp. 253-310.

Martinsen, K. (1984). *Freidige og uforsagte diakonisser.* Oslo: Aschehoug/Tanum-Norli.

Mathisen, J. (2006). *Sykepleiehistorie ideer - mennesker - muligheter* (2. utgave. utg.). Oslo: Gyldendal Norsk Forlag AS.

Mathisen, J. (2012). Teoriundervisning i sykepleiefagets pionertid. *Sykepleien Forskning, 7*(2), pp. 142-150.

Mathisen, J. (2015). Norske sykepleiere i første verdenskrig. *Sykepleien Forskning, 10*(2), pp. 172-178.

McEwen, Y. (2014). *In the Company of Nurses.* Edinburgh: Edinburgh University Press.

Meløe, J. (1983). *Om å se.* Retrived Desember 2019 fra Jakobmeloe.com/publications/: http://www.jakobmeloe.com/publications/

Melby, K. (1990). *Kall og kamp. Norsk Sykepleierforbunds historie.* Oslo: Cappelen.

Melve, L. (2018). Å arbeide komparativt. I L. Melve, & T. Ryymin, *Historikerens arbeidsmåter* . Oslo: Universitetsforlaget., pp. 70-91, cit. p. 74.

Melve, L. (2018). KIldekritikk - en kort historikk. I L. Melve, & T. Ryymin, *Historikerens arbeidsmåtet* (ss. 35-43). Oslo: Universitetsforlaget.

Melve, L., & Ryymin, T. (2018). Valg av kildematerialer, arbeidsmåte og tilnærming. I L. Melve, & T. Ryymin, *Historikerens arbeidsmåter*. Oslo: Universittsforlaget., pp. 26-33.

Midtgaard, K. K. (2001). *Jutlanida-ekspedition. Tilblivelse og virke 1950-53.* København: DUPI.

Midtgaard, K. K. (2003). Historien om hospitalskibet Jutlandia. *Siden Saxo*(4), pp. 16-25.

Mohn, A. H. (1951). *Rød taifun over Korea.* Oslo: Gyldendal Forlag.

Municipal Archive of Trondheim. (u.d.). *Inger Schulstad NORMASH 1952*. Hentet fra https://www.flickr.com/photos/trondheim_byarkiv/albums/72157647401564923/page1

Neel, S. J. (1954). Medical Considerations in Helicopter Evacuations. *United States Armed Forces Medical Journal, 5*(2), pp. 220-227, for prone position see p. 225.

Ness, E. (2016). *The Forgotten War*. Retrieved March 2019, from http://eilifness.no(?p=75

Nightingale, F. (1997). *Notater om sykepleie.* Oslo: Universitetsforlaget.

Nilssen, E. (1953). Brev til sjefssøster av 23 mars, Forsvarets saniet [Letter to Maton-in-chief]. *Riksarkivet, The National Archive of Norway, RAFA-3422*. Oslo: Forsvarets sanitet.

Nilssen, R. W. (1952). *Med Røde Kores i Korea.* Stavanger: Misjonsselskapets Forlag.

Nissen, R. (2000 [1877]). *Lærebok i Sygepleie.* Oslo: Gyldendal Akademiske.

Njølstad, O. (2008). *Jens Chr. Hauge - Fullt og helt.* Aschehoug (W. Nygaard).

Nordtvedt, P. (2008). *Sykepleiens grunnlag* (2. utgave. utg.). Oslo: Universitetsforlaget.

NOU 1998:8. (1988). Luftambulansetjenesten i Norge. Oslo: Helse- og omsorgsdepartementet.

Nyby, O. (1952). Ambulanseflyging. *Norsk Militært tidsskrift, 122*(111), ss. 6-20.

Olaussen, T. (1960). Arbeidet i operasjonsstuen. In A. (. Jervell, *Lærebok for sykepleiere, Bind 5* . Oslo: Fabritius & Sønners Forlag., p. 48.

Omori, F. (2000). *Quiet Heroes. Navy Nurses in the Korean War 1950-1953. Far East Command.* St. Paul, MN: Smith House Press.

Ordrop, E. (1953, november). Hva ligger i uttrykket spesialutdannet sykepleier? *Tidsskriftet Sykepleien, 41*(10), pp. 587-589.

Palmer, P. N. (1991). War Leave Indelible Marks on the Nursing Profession. *AORN Journal, 53*(3), pp. 657-658.

Pash, M. L. (2012). *In the Shadow of the Greatest Generation. The American Who Fought the Korean war.* New York: New York University Press.

Paus, B. (1953). Litt om det Norske Feltsykehus i Korea og tungt feltsykehus. *Offisersbladet, 9*(2), pp. 74-78.

Paus, B. (1954). Kirurgiske erfaringer fra Det norske feltsykehuset i Korea. *Nordisk Medicin, 51*(11), pp. 384-388.

Paus, B. (1954, Januar). Medisinsk liv ved den koreanske krigsskueplass. *Tidsskrift for Den Norske Lægeforening, 74*, pp. 10-15.

Paus, B. (1955). *Det norske feltsykehuset i Korea "Normash" 1951-1954.* Oslo: Forsvarets sanitet.

Pedersen, L. U. (1991). *Norge i Korea - Norsk innsats under Koreakrigen og senere.* Oslo: Huitfeldt Forlag AS.

Pløen, I. (1950, november). Utdannelse av operasjonssøstre. *Tidsskriftet Sykepleien, 36*(19), pp. 587-589.

Polit, D. F., & Beck, T. C. (2012). *Nursing Reserach* (Ninth Edition. utg.). Philadelphia: Wolters Kluwer.

Randby, D. (2010). Fra en elektrikers dagbok. In: F. Bakke, *NORMASH Korea i våre hjerter*. Oslo: Norwegian Korean War Veterans Association., pp. 34-36

Rekkebo, G. (1951, Mai 15). Avtale mellom Norges Røde Kors og Gotfred Rekkebo [Contract between The Norwegian Red Cross and Gotfred Rekkebo]. *Rannei og Gotfred Rekkebos privatarkiv*. Ottestad: Migrasjonsmuseets arkiv.

Rekkebo, G. (1951). Femårs dagbok 1947-1951 [5-years diary 1947-1951]. *Private archive Rannei and Gotfred Rekkebo*. Ottestad: Migrasjonsmuseets arkiv.

Rekkebo, G. (1951, Mai 15). Kontrakt mellom Norges Røde Kors og Gotfred Rekkebo [Contract between The Norwegian Red Cross and Gotfred Rekkebo]. *Private archive Rannei and Gotfred Rekkebo*. Ottestad: Migransmuseets arkiv.

Rekkebo, G. (1971). Besøk på feltsykehustomtene i Korea 20 år etter. *Rannei og Gotfred Rekkebos privatarkiv*. Ottestad: Migrasjonsmuseets arkiv.

Rosen, L., & Aabakken, L. (1997). *Håndbok i krigskirurgi.* Oslo: Forsvarets sanitet.

Sandelowski, M. (2000). *Devices and Desires: Gender, Technology and American Nursing.* Chapel Holl: The University of North Carolina Press.

Sandvik, O. (2012). *Skjebnespill. Fra Kvinnherad til vetrinærvesenets innside.* Oslo: Norsk Vetrinærhistorisk Selskap.

Sarnecky, M. T. (1999). *A History of the U.S. Army Nurse Cops.* Philadelphia: University of Pennsylavania Press.

Sarnecky, M. T. (2001). Army Nurses in 'The Forgotten War'. *American Journal of Nursing, 101*(11), pp. 45-49.

The Scandinavian Board. (1966). *Undervisningssykehuset i Korea - Facts about the Establishment and Operation of The National Medcial Centre in Korea and related Activities.* Oslo: The Scandinavian Board. p. 22.

Søster Rønnaug, & Søster Hetty. (1951, juli). Brev fra Korea-søstrene. *Sykepleien, 38*(11), pp. 204-207.

Sejersted, F. (1993). En teori om den økonomiske og teknologiske utvikling i Norge i det 19. århundre. I *Demokratiske kapitalisme*. Oslo: Universitetsforlaget AS., pp. 47-106.

Semb, C. (1991). Fra sanitetstjenesten i Korea. I L. U. Pedersen, *Norge i Korea*. Oslo: Huitfeldt Forlag AS., pp. 76-82

Semb, G. (1952). Brev fra Namsosdame i Korea. 'Barn uten foreldre, heim og mat. Barmhjertighetens arbeid mellom nød, blod og lidelse'. *Rannei og Gotfred Rekkebos privatarkiv. Utklipp fra 'Nordtrønderen og Namdalen'. Avisa er gått inn*. Ottestad: Migrasjonsmuseets arkiv.

Semb, G. (1952). Brev fra Namsosdame i Korea. 'Bjørnson til Taegu og Taejon'. *Fra Rannei og Gotfred Rekkebos provatarkiv. Avisutklipp fra avisa Nordtrønderen og Namdalen. Avisa er gått inn*. Ottestad: Migrasjonsmuseets arkiv.

Semb, G. (2011, 9 20). Opplevelser ved NORMASH [Experiences at NORMASH]. (J.-T. Lockertsen, Intervjuer) Lørenskog.

Sæter, M. (1965). *Over alle grenser: Norges Røde Kors 100 år.* Oslo: Aschehoug.

Skogrand, K. (1994). Norge og Koreaspørsmålet 1945-1954. Master thesis. Oslo: Universitet i Oslo.

Slich, T. (2018). What is Special About the History of Surgery? I T. Slich, *The Palgrave Handbook of the History of Surgery* (ss. 1-24). London: Palgrave Macmillan.

Smith, A. D. (1952). Medical Air Evacuation in Korea and its Influence on the Future. *The Military Surgeon, 110*(5), pp. 323-332.

Snow, S. J. (2018). Surgery and Anaestehesia: Revolutions in Practice. I T. (. Schlich, *The Palgrave Handbook of the History of Surgery* (https://doi.org/10.1057/978-1-349-95260-1 10. utg. London: Palgrave Macmillan UK., pp. 195-214.

Stafsnes, I. (1951, Mars 20). Brev til Søster Ruth av 20 mars [Letter to Sister Ruth of 20. March]. *Riksarkivet [National Archives of Norway] RAFA-3422*. Oslo: Forsvarets sanitet.

Stave, G. (1990). *Mannsmot og tenarsinn.* Oslo: Det Norske Samlaget.
St. prp. nr. 25. (1951, februar 8). *Om tilleggsbevilgninger på statsbudsjettet for budsjettåret 1950-51, under nytt kap 122. Norsk feltlasarett til rådighet for felleskommandoen for de Forente Nasjoners styrker i Korea. .* Hentet fra https://www.stortinget.no/no/Saker-og-publikasjoner/Stortingsforhandlinger/Lesevisning/?p=1951&paid=2&wid=a&psid=DIVL738&pgid=a_0119
Steen, E. (1952). Forord av presidenten i Norges Røde Kors. I R. W. Nilsen, *Med Røde Kors i Korea* (ss. 7-8). Stavanger: Misjonsselskapets Forlag.
Straume, J. B. (1960). *Norske sykepleiere, Bind 1 og 2.* Oslo: Athene Forlag.
Strømskag, K. E. (1999). *Et fag på søyler. Anestesiens historie i Norge.* Oslo: Tano Aschehoug.
Svane, S. (2000, December 10). Hjelpeaksjonen under paratyfoid A-epidemien i Kirkenes 1943-44. *Tidsskriftet Den Norske Legeforening, 120*(30), ss. 3688-92.
Taylor, E. (2001). *Wartime Nurse: One Hundred Years from The Crimea to Korea 1854-1953.* London: Robert Hale Ltd.
Tidsskriftet Sykepleien. (1950, March). Oversøsteransettelsen ved Rikshospitalet, Kirurgisk avdeling b. *Tidsskriftet Sykepleien*, 37 (6). pp. 70-71.
Tidsskriftet Sykepleien. (1952, June). Operasjonsrommet ved Norwegian Mobile Surgical Hospital i Korea. *Tidsskriftet Sykepleien, 39*(12), p. Forside [Cover Page].
osh, J. (2015). *The Pursuit of History* (6th edition. utg.). London & New York: Routhledge.
Trunky, D. D. (2000). History and Development of Trauma Care in the United States. *Clinical Orthopaedics and Related Research*(374), pp. 36-46.
Ulland, G. (1936). *Under Geneferkors i Etiopia - Med den norske ambulanse.* Oslo: Aschehoug & co (W. Nygaard).
United Nations. (1950, July 31). *Security Council Resolutions. Complaint of aggression upon the Republic of Korea S7RES/85, 31 July.* Hentet fra https://undocs.org/S/RES/85(1950)
United Nations. Security Council Resolutions. (1950, June 27). Hentet fra https://undocs.org/S/RES/83(1950)
Vuic, K. D. (2010). officer, nurse, woman. The Army Nurse Cops in the Vietnam War. Baltimore, Maryland: the Johns Hopkins University Press.
Waage, H. R. (1906). *Lærebok i Sykepleie* (4th ed.). Kristiania: H. Aschehoug & Co.
Wall, R., & Hallett, C. E. (2018). Nursing and Surgery: Professionalation, Education and Innovation. I T. Slich, *The Palgrave Haandbook of the History of Surgery* (ss. 153-174). London: Palgrave Macmillan.
Wüller, R. (1952, Mars). Med norsk feltsykehus til Korea. *Sykepleien, 39*(5), ss. 126-132.
Western, G. (1951, september 13). Brev til Søster Ruth av 13 september [Letter to Sister Ruth of 13. September]. *Riksarkivet [The National Archives of Norway] RAFA-3422.* Oslo: Forsvarets sanitet.
Widerøe, S. (1926). Kirurgisk sykepleie. I K. Grøn, & S. Widerøe, *Lærebok i sykepleien* (ss. sitert s. 101. ss. 101-107). Oslo: H. Aschehoug& Co (W. Nygaard).
Woodard, S. C. (2003, July). The Story of the Mobile Army Surgical Hospital. *Military Medicine, 168*, ss. 503-513.
Wyller, I. (1990). *Sykepleiens historie i Norge.* Oslo: Gyldendal.
Zipermann, H. H. (1954, January). Acute Arterial Injuries in the Korean War. *Annals of Surgery, 139*(1), pp. 1-7.

Östberg, S. S.-g. (2014). The Swedish Red Cross Hospital in Busan 1950-1958. A of Its Transition from a Military to Civilian Hospital. *Korean Journal, 54*(1), pp. 133-156.

Øverland, P. (2008). *Koreasoldat 1953.* Trondheim: Forlag 90936 Per Øverland.

Øverland, P. (2010). Et brev til de der hjemme. In: F. Bakke, *NORMASH: Korea i våre hjerter*. Oslo: Norwegian Korean War Veterans Association., p. 37

Årdalsbakke, I. (2011, 12 7). Opplevelser ved NORMASH [Experiences at NORMASH]. (J.-T. Lockertsen, Intervjuer) Skei.

Archives and informants

Archives used

RAFA-3422 Forsvarets sanitet: Serien Det norske feltsykehus i Korea, eske 163-165, 167, 169-174

Privatarkiv Rannei og Godtfred Rekkebo. Norsk utvandrermuseum (Migrasjonsmuseet)

Informants

Margot Isaksen. Interview 27 November 2012. Greverud, Norway

Kari Roll Klepstad. Interview 30 March 2011. Leknes i Lofoten, Norway

Peder Klingsheim. Interview 28 January 2015. Askøy, Norway

Peder Lind. Interview 18 March 2015. Fjellhamar, Norway

Gerd Semb. Interview 20 September 2011. Lørenskog, Norway

Inga Årdalsbakke. Interview 7 December 2011. Skei, Norway

Photos

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Preface. Ragnnhild Strand Kildahl. Reproduced by the kind permission of Rigmor Bye Brochman.
Page 13. Norwegian nurses visiting Danish nurses at the Danish hospital ship Jutlandia. Reproduced with the kind permission of Rigmor Bye Brochman.

Page 41. Gerd Semb (1918-2019) with the guitar she used in Korea. Photo by Jan-Thore Lockertsen.

Page 65. Kari Roll Klepstad and Chul Ho Lee (Archie). Reproduced by the kind permission of Kari Roll Klepstad.

Page 69. Bell H-13 Sioux Helicopters at NORMASH. Reproduced by the kind permission of Rigmor Bye Brochman.

Paper 1

Lockertsen, J.-Th., Fause, Å., Hallett C. E., Brooks, J. (2015). The Norwegian Mobile Army Surgical Hospital: Nursing at the front. In: Brooks, J. & Hallett, C. E. (eds.), *One Hundred Years of Wartime Nursing Practices, 1854 – 1953.* Manchester: Manchester University Press. pp. 232–253.

11

The Norwegian Mobile Army Surgical Hospital: Nursing at the front

Jan-Thore Lockertsen, Ashild Fause, Christine E. Hallett and Jane Brooks

'Why I did go to Korea? I guess it was the same reason that I left my home and travelled 1,000 kilometres to train as a nurse. I was young and adventurous.'[1] The Korean War is 'the forgotten war', the war 'in between' the Second World War and the Vietnam War. Margot Isaksen was one of the 111 nurses who served as a ward nurse or theatre nurse at The Norwegian Mobile Army Surgical Hospital (NORMASH) in the period during which it was operative (July 1951–October 1954).

The Korean War started on 25 June 1950, when Communist North Korea invaded the Republic of South Korea. Armistice was declared 27 July 1953. NORMASH was operative from 18 July 1951 to 18 October 1954. During this period, over 90,000 patients were received and treated, 14,755 as inpatients. Of these, 12,201 were treated before the armistice and 2,554 between the armistice and the closing down of the hospital. More than 9,600 operations were performed.[2] NORMASH was a Norwegian unit and a part of the United Nations Army that, following a resolution in the UN Security Council, offered military support to the Republic of South Korea.[3] Tactically it was a part of the 8th US Army and was equipped as an ordinary US MASH.[4] Alongside the British Commonwealth, it served the US First Corps.[5]

The end of the Second World War saw the birth of the Mobile Army Surgical Hospital. The idea behind MASH was to utilise a mobile surgical hospital that could move quickly and operate close to the combat zone. As a unit, MASH was fully equipped with vehicles and tentage, and it could operate and move by itself in coordination with the movements of the front line.[6] The Korean War was the first

war during which this idea was tested.[7] The evacuation line in Korea was from a battalion aid station, to MASH, to the evacuation hospital and then on to the general hospital.[8] But given the lack of sufficient evacuation hospitals, MASHs soon evolved from 60-bed surgical hospitals to 200-bed hospitals that also functioned as evacuation hospitals. This situation lasted until 1952, when most MASHs returned to 60-bed hospitals.[9]

NORMASH was one of six MASHs that were active during the Korean War; the other five were all from the USA. The mortality in the Korean War was 2.5 per cent. NORMASH had a mortality of 1.2 per cent overall.[10] During one period in 1952, Norwegian figures suggest that the mortality rate was as low as 0.6 per cent.[11]

When assembling NORMASH in Japan before departure to Korea, the Norwegian nurses were aware of the shortage of nurses in the USA, which had a subsequent effect on the staffing in US MASHs. It is claimed that this shortage had led to nurses needing to work longer hours and under increasing pressure when on duty.[12] Norwegians observed that the work was much more fragmented than they were used to in Norway. Individuals who were not trained as nurses did nursing work, something that the Norwegians believed to be a result of the shortage of nurses. They observed that non-nurses performed dressings on patients, and that there was a team administering medication such as penicillin and streptomycin.[13] US MASHs used both nurses and technicians as assistants for physicians during operations.[14] It has been claimed that the use of surgical technicians in the US MASHs had a significant influence on the subsequent introduction of surgical technicians to civilian hospitals in the USA.[15] This did not happen in the NORMASH, which used fully trained operating room nurses wherever possible, or registered nurses where necessary, for instrumentation during operations.

This chapter argues that the use of highly trained nurses for both theatre work and ward work in the NORMASH had a significant impact on the success of the hospital (including its low mortality rate). Specialist nurses were employed in operating theatre work, whilst fully trained nurses cared for patients in the wards. These nurses exercised a significant amount of autonomy in their care and treatment of patients. Like US nurses, they were obliged to rely on

untrained assistants for support. However, assistants were not used for instrumentation in the NORMASH. The chapter explores the nursing done by trained theatre nurses and registered nurses. It also considers how they educated and trained orderlies and 'The Boys' as auxiliary helpers for defined tasks.[16]

Approaches used

The Korean War is 'the forgotten war'. For this reason primary data are scarce. Brunk says: 'In spite of the popularity of military nursing as a topic for scholarly inquiry, no studies exist that explicate the role of nursing during the Korean conflict (1950–1953).'[17] The study presented here uses oral history methodology alongside archive research and contemporary journal sources. Significant and illuminating data were obtained from oral history interviews with four nurses who worked in the NORMASH. It is believed that these are the only four nurses still living. Oral history is an effective way of collecting testimonies from eyewitnesses.[18] Their stories, told in open interviews nearly 60 years after serving, along with photographs and other materials, give a picture of perioperative nursing at NORMASH.

11.1 Gerd Semb, reproduced by kind permission of Gerd Semb

Captain Gerd Semb served with the first contingent at NORMASH. Semb trained as a nurse in Trondheim during the Second World War. In 1944 she fled to Sweden and joined up with the Norwegian Constabulary Force, which was trained in preparation for the liberation of Norway from German occupation. In February 1945 she went with a Norwegian field hospital to Kirkenes, a small town close to the Russian border. The Soviet Red Army had liberated Kirkenes in October 1944. German forces were retreating from Northern Norway, using a scorched earth tactic, and the Norwegian field hospital was established in the destroyed landscape. After the war she stayed in the army, working as a ward nurse; and she was a nurse with The British Army of The Rhine (BAOR) as a part of the occupation force in Germany after the war in Europe.[19] Semb continued working as a nurse with the army until 1967. Like Gerd Semb, First Lieutenant Kari Roll Kleppstad was an army nurse before Korea. She had served with BAOR, and continued to serve with the army after NORMASH. Kleppstad also served in a refugee camp in Austria in 1958. She participated in many military manoeuvres in Norway, only eventually leaving the army to care for an elderly parent. Inga Årdalsbakke was not a theatre nurse, but worked in the operation theatre at NORMASH. After Korea she worked as a nurse both in England and the USA. Like many other veterans of NORMASH she went back to South Korea, where she worked as Head Nurse at the National Medical Centre and CNMC (from 9 August 1959 to 22 October 1960).[20] Margot Isaksen had no military background before NORMASH, but worked as a theatre nurse. Isaksen was only allowed to have one mission in Korea. She was replaced because the Head Nurse of the army, Ruth Andresen, wanted as many nurses as possible to have combat experience.

The oral histories were complemented by additional archival evidence and published sources, including official reports about NORMASH produced on behalf of the Norwegian Army, and books and memoirs written by veteran soldiers. Although these were not nurses, their close observations of the nurses give value to their writings. Their writings both confirm and amplify the oral histories. Soldiers such as Olav Sandvik and Herman Anker educated themselves as veterinarians and orthopaedic surgeons after the Korean War. Their written memories about their duties in the operation

theatre confirm official reports about nurses' duties as educators and supervisors.[21]

Establishing NORMASH

The United Nations (UN) wanted Norway to participate with armed forces, but this was not possible. The army was rebuilding after the Second World War and needed all its personnel to secure Norway and to fulfil its obligations to England by providing one brigade to BAOR.[22] Although the Norwegian government wanted to give aid to the civilian population of South Korea through the Norwegian Red Cross, the UN had a greater need for a military hospital and demanded a MASH rather than civilian aid. The burden on the US MASHs had increased, and there was a lack of general and medically trained personnel.[23] Norway did not have a MASH, but did possess a field hospital, Tungt feltsykehus (TFSH), which was not sufficiently mobile and therefore unsuitable for use in Korea. An existing plan for a TFSH was put aside, and a MASH was bought from the USA instead.[24]

The staff of NORMASH were not able to draw upon any prior experiences or written accounts for this type of work – everything was a first-time experience. NORMASH was initially assembled in Japan with 60 beds, before being transferred to Korea where further development and staff training took place. An ambulance platoon was also assigned for duty at NORMASH.[25] NORMASH was planned with fourteen physicians in every contingent. Because there was a shortage of surgeons in Norway, however, NORMASH was not able to recruit the required number.[26] Some surgeons visited US MASHs to learn from their experiences from one year in the combat zone.[27] Peter Lexow served as a physician in the first contingent. He maintained that war surgery was learned at first hand, and with feedback from the evacuation hospital such as 'never do …' and 'always do …'[28] Contacts when educated nurses came to NORMASH for visiting and learning are only recorded late in the assignment and after ceasefire.[29]

From Japan the NORMASH unit was shipped by boat to Pusan in Korea. After disembarking in Pusan the first contingent went by train and lorries to Uijongbu. The journey took them through a war-scorched landscape in which they were faced with fighting armies four times.[30] After reaching Uijongbu NORMASH was established

in an idyllic garden, 'The Orchard'. NORMASH was hence stationed between fifteen and thirty kilometres from the front line, and was in fact the MASH closest to the front line.[31]

The war theatre in Korea developed from a blitzkrieg that swept most of the country four times, to a trench war along the 38th parallel. When NORMASH was established, the UN army had complete dominance in the air, enabling a good logistic chain. Supplies to the front and evacuation of patients could be carried out safely. NORMASH received all its material and medical supplies from US depots. All medical technical supplies were stored in wooden boxes marked with numbers so that essential equipment could be identified in cases of emergency.[32]

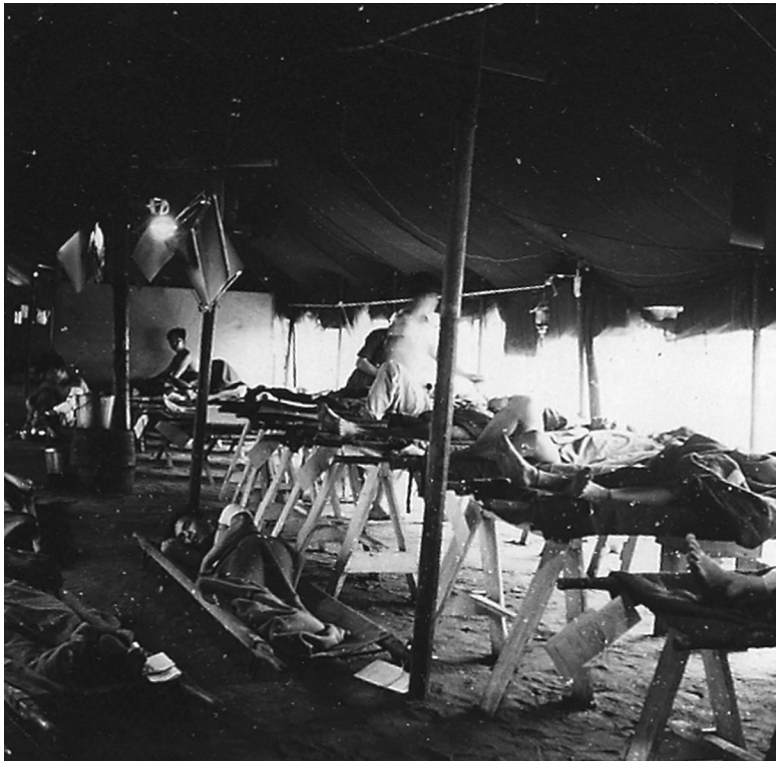
Korea had at that time not only been totally destroyed; it was also plagued by infections such as typhus, typhoid, pox and tuberculosis.[33] Experience from previous wars had shown that the greatest losses were caused by infections. Personnel were therefore vaccinated before service in Korea. This, along with good personal hygiene, had a beneficial effect, and hardly any contagious disease was recorded among the Norwegian personnel.[34] This was particularly noteworthy given that human waste was used as fertiliser in Korea; hence Koreans, both soldiers and civilians, who underwent surgery at NORMASH had ascaris (intestinal worms).[35] To avoid ascaris among themselves, the Norwegian personnel did not eat local food or vegetables; instead everything came from US sources. Nurses describe the food as good but boring and very 'American', most particularly, they complained of too much bacon.[36]

Recruitment of nurses

There were eighteen nurses in every contingent. Seven positions were theatre nurses and six were ward nurses or deacons (male nurses with an ecclesiastical education in addition to social welfare and nursing). Deacons served with the first four contingents but were not assigned as commissioned officers like the theatre nurses and registered nurses. Two nurses were X-ray nurses and one was a laboratory nurse. In addition, there was one matron and one head nurse for the operation theatre. Both ward nurses and theatre nurses were supposed to be recruited from among those who had served with BAOR.

However, the demand for experienced nurses always exceeded the supply, and it was never possible to fill all the specialist positions in X-ray and theatres with specialist nurses.[37] Very few of the seven contingents had more than a handful of personnel with both medical and military training.[38]

Training was provided for those in the first contingent who lacked military training, when they arrived in Japan. This was basic and consisted largely of learning how to salute, as well as military dress code. All nurses were dressed in uniforms from the US Army. Already, from the first contingent they learned that they were now under US supreme command and that Norwegian officers had limited authority.[39] Disciplinary rules were adopted from US Army regulations, and discipline among the nurses was described as high.[40] Semb stated



11.2 NORMASH ward, reproduced by kind permission of Ragnhild Strand

that the use of US field uniforms, ranks, food and rules made them feel that everything was Americanised.[41] The nurses maintained that walking around saluting and addressing each other as Lieutenant or Captain felt peculiar.[42] In fact, no one in the first contingent was commissioned as an officer. The Norwegian Red Cross operated the first contingent of NORMASH. The Ministry of Foreign Affairs administrated it, and the staff were denied Norwegian military rank by the Minister of Foreign Affairs. Upon arrival in Japan, the staff changed from Norwegian uniforms with Red Cross distinctions and ranks, to US Army uniforms and ranks. When Norway realised that NORMASH in fact operated as a military unit in Korea in August 1951, the administration was transferred to The Ministry of Defence, and members of staff were given military ranks.[43]

Education of nurses

Until 1974, registered nurses had to work two years as apprentices in operation theatres in order to become specialist nurses. However, there was no additional curriculum for theatre nurses, and they continued to use the same textbooks as other registered nurses. The main differences were the two years of training and the daily experience of working in an operation theatre.[44] From 1948 Norway had a uniform three-year education for nurses. This secured a standard level for all nurses.[45] Every school had long practice periods for students in operation theatres. During practice, students assisted theatre nurses with daily tasks. All operating theatres depended on a supply of well-maintained surgical instruments and a supply of sterilised dressings, gowns and linen for use. Single-use equipment was not commonly in use in Norway until nearly twenty years after the Korean War. Packing and sterilisation was therefore an important topic in Norwegian textbooks and a key aspect of the students' training whilst in the operating theatre.[46]

In the 1950s, theatre nursing had developed into two functions. One nurse had the responsibility for establishing a sterile field, draping patients in sterile linen and assisting the physician during surgery with instrumentation and haemostasis. The other nurse circulated and was responsible for positioning patients for surgery. This nurse also served the physician and scrub nurse in the sterile field

if they required additional surgical instruments. Students mainly followed the circulating nurse. Operation theatre training has been criticised for using students as unpaid janitors. However, the practice gave every student nurse an education in sterilising and handling sterile goods. It also gave them a fundamental knowledge of theatre nursing.[47]

Norway got the first medical anaesthetist, Otto Marius Mollestad, in 1947.[48] Previously, providing anaesthesia was the surgeon's responsibility, but a theatre nurse under guidance from the surgeon very often carried out the task. After the Second World War, a course in anaesthesiology was mandatory for theatre nurses who specialised in anaesthesia. Intubation and the use of anaesthetic machines were reserved for theatre nurses with this additional course. Anaesthesia with ether on mask was still commonly in use. Student nurses still had the use of ether anaesthesia in their curriculum and training in dripping ether on a mask.[49] Through education and personal experience, the theatre nurses and registered nurses had become well prepared for working with, and supplementing, each other in the MASH units. Gerd Semb, for instance, had several times acted as a theatre nurse and also given ether anaesthesia as a nurse during the last war winter in Europe.[50]

Baptism by fire

During the first forty days, NORMASH received 1,048 patients – twenty-three of them civilians. Everything came to the hospital, including patients with appendicitis, victims of traffic accidents and those with somatic illnesses.[51] A total of 184 surgical interventions were conducted, of which only sixteen were combat wounds. A grenade that landed on a lorry during an evacuation of civilians was the baptism by fire, at which point forty-one Koreans and soldiers from Canada and Australia were sent to NORMASH. The critically wounded were transported by helicopter, and those less critical were moved by ambulances. Once they arrived at NORMASH all patients were 'triaged', and with four surgical teams operating four operation tables all staff members could retire to bed twelve hours later.[52]

The next test came in October 1951 after moving closer to the front, to Tongduchon. The staff at NORMASH understood that something

11.3 Evacuation by helicopter, reproduced by kind permission of Ragnhild Strand

was about to happen. While soldiers were moved to the front, NORMASH was ordered to complete an inventory of the equipment and to ensure that the blood bank was filled. The October offensive started with midnight shelling. The staff could hear the thunder from the artillery. Then the infantry attacked, and soon helicopters, ambulances and jeeps with stretchers arrived at the field hospital.[53] Helicopters were not initially intended for use as ambulances, but for rescuing pilots who crash-landed behind enemy lines.[54] However, when the first requests came for patient evacuation, their success was apparent, although not without difficulties. It was a 'learning by doing' process, and technical and medical difficulties were solved through improvisation along the way.[55] The introduction of a

helicopter ambulance service enabled battle casualties to be evacuated from battalion first aid to a surgical hospital for surgical procedures. Some of the nurses could not remember having seen a helicopter before arriving in Korea,[56] but they soon learned to distinguish the different sounds made by small Bells carrying only two casualties, big Sikorskys with multiple casualties, and ambulances. Each distinct sound marked a different degree of urgency.

Establishing nursing practice at NORMASH

The centre of a MASH is the operating theatre. A MASH cannot be operable without personnel trained for working in the operation theatre.[57] All other facilities are there to support the operation theatre. Most of the nurses were recruited from civilian hospitals and had not had courses in war surgery or any military experience – they only had their education as nurses and practice and training as theatre nurses upon which to rely. Nevertheless, they constituted the core of a military surgical hospital serving in a bloody war and operating as close as 15 km from the combat zone. The operating theatre nurse was part of an operating team that conducted sophisticated war surgery with a high rate of survival:

> The surgery at a field hospital is characterised by the fact that the hospital is the first place in the evacuation chain where battle casualties are taken care of by a fully trained surgical team. It has surgeons, anaesthetists, operating theatre nurses and orderlies, etc. and, with regard to both quality and quantity, first-class equipment.[58] (Quotation translated by JTL)

> Also our splendid registered nurses fitted into this [MASH] with their thorough education and special education.[59] (Quotation translated by JTL)

> I hope that I, through this, have been able to give you a picture of what modern military medicine is and what it can do, the many special departments and specially educated personnel near the combat zone, the breadth of medical science and the severe wounds a soldier can survive, as well as the low mortality and high rate of healing.[60] (Quotation translated by JTL)

Nursing at NORMASH developed in a different way compared to the other MASHs. The shortage of nurses in the US Army led to use of operating room technicians (ORT) in assisting surgeons with instrumentation, freeing registered nurses to educate and supervise

11.4 Kari Roll Klepstad and Chul-Ho (Archie) Lee, reproduced by kind permission of Kari Roll Klepstad

auxiliary staff members in addition to nursing surgical patients.[61] Both theatre nurses and registered nurses at NORMASH were obligated by contract to take part in the training of orderlies. Tasks that were the nurses' responsibility but need not necessarily be done by nurses in Norwegian hospitals were often taken care of by soldiers and by 'the boys' under the registered nurse's supervision. 'The boys', as the Korean boys – some of whom were orphans and refugees – were known, were used throughout the whole period by NORMASH. Their tasks were mainly supportive, such as filling up with supplies, cleaning and maintaining surgical instruments, and did not include specialist nurses' work. Training others to do these supportive tasks was already an established practice in Norway. You did not need to be a fully trained nurse but it was the nurses' responsibility, and nurses therefore gave instructions:

> I was in Korea after the armistice. It was amazing to see what the boys could do. I was alone on night duty in post op. I could never have done it all by myself. The boys had learned a little English and translated for us when we had Korean patients. They had learned the names of the different instruments and could prepare packets after lists made by the theatre nurses.[62]

> In my time it was a boy who cleaned surgical instruments. He was careful and often came to show us a surgical instrument and ask if it was well cleaned.[63]

Olav Sandvik was a third-year veterinary student. During his service as a guard soldier at NORMASH he was reassigned to the operation theatre. His training had already included courses on surgery on animals, and he had learned about aseptic procedures under circumstances that were not ideal. All this he found useful working in the operation theatre, a working place of high prestige among his fellow soldiers. Theatre nurses, and also deacons, taught them how to perform practical tasks:

> It was mainly maintaining and autoclaving of surgical instruments, dressings, gowns etc., and it was cleaning after long operations where a lot of equipment and dressings could be left in a mess and even on the dirt floor.[64] (Quotation translated by JTL)

Specialist nurses such as theatre nurses were contracted to work as ward nurses when necessary. In practice, nurses also had to fill

the role of theatre nurses when required, often during high-intensity periods when all hands were needed. If no theatre nurses were available, or theatre nurses were exhausted and had to sleep, regular nurses assisted physicians.[65] During periods of intense activity in the operation theatre there were no regulated working hours. All the theatre personnel were required to work until they could not do any more; then they went to sleep, and then up again. On average, there were eight operations every day. If a patient had multiple wounds and underwent surgery for abdominal and limb wounds at the same time, it was recorded as one operation. Once there were 173 operations over a period of seventy-three hours.[66] Over time there were several examples of soldiers being given tasks such as holding retractors and forceps for surgeons.[67] Herman Anker was a guard soldier in the first contingent and, like Sandvik, he was reassigned to the operation theatre where he was soon required to assist surgeons with holding retractors during operations, a task he stated he never felt comfortable with:

> An older surgeon asks me to give narcosis, a task I don't feel competent to do. But he promises to help me keep an eye on the patient and explains how I shall check the size of the patient's pupils. So here I am, sitting at the end of the table dripping ether on mask hour after hour.[68] (Quotation translated by JTL)

Holding retractors had never been seen as a nurse's main task. Only if the surgeons needed an extra hand because of the lack of an assistant would a nurse do this. Theatre nurses had their function during operations, assisting surgeons with instruments and haemostasis. During the busiest periods, theatre nurses stood between two tables and assisted two surgeons.[69] According to Årdalsbakke:

> The soldiers who helped us out in the operation theatre said they viewed holding retractors as a dreadful task. After doing it for some time, they got used to it and did a good job. There was no one we could call in. We also had to teach people from the kitchen how to disinfect their hands and dress in scrub and help hold retractors during particularly intensive periods.[70]

There were never enough nurses to undertake more than the primary nursing tasks. However, despite this, orderlies were not used

to support surgeons with tasks such as holding retractors for the whole period of the war:

> I was in Korea very late. Everything was very well organised. We heard that orderlies had been used for holding retractors earlier. We never did that. We did it all by ourselves. Except for the washing. It was the boys, as we said, who did the cleaning of the operation theatre. It was very clean. The floor, of course, was only dirt and could not be washed. But it is amazing what can be done if everyone is willing. I mostly saw wounds of arms and legs. But there were other things. I remember a soldier wounded in the head. I was with a neurosurgeon. We didn't think he would survive. But he did. His parents wrote a letter and thanked us.[71]

NORMASH had two anaesthesia machines. With four operating tables in use during rush hours only two teams could use the machines. The other two used ether dripped on a mask. The first contingent did not have an anaesthesiologist at all, but from the arrival of the second contingent they all had anaesthesiologists.[72] Most of the work with the more sophisticated methods of anaesthesia therefore had to be done by theatre nurses who had undergone additional training. Anaesthetising a patient using ether dripped on a mask was not an easy task, and the risk of vomiting and expiration was high. Experienced theatre nurses were aware that a careful and experienced eye was needed.[73] However, it was still considered a task that surgeons could give to a registered nurse if necessary. At NORMASH there were examples of anaesthesia by this method being done by whomever the responsible surgeon could find.

Modern surgery depends on the prevention of infections, but during the Korean War there were many issues that could easily have led to life-threatening infections among the patients and clinical staff. Bernard Paus, surgeon in contingents 1 and 5, wrote:

> The patients have been wounded on infected Korean soil, they have undergone surgery in a tent with a dirt floor, they are lying in a tent with a dirt floor, and they are lying on stretchers with blankets and no sheets. They are tossing and turning, and the dressings are often on other places than the wounds. The Koreans are also good at plucking at their bandages and taking them off – and still, we hardly ever, ever see an infection.[74] (Quotation translated by JTL)

Several questions could be raised in response to that statement. All patients were routinely given shots of anti-tetanus serum, penicillin

and streptomycin. Many of the nurses were used to using only sulpha as antimicrobial medicine, even though penicillin had been used in military medicine since the Second World War. This could have meant that they were exceptionally careful with infection control and with regard to reducing the risk for exogenous wound contamination. Moreover, with a median length of stay for inpatients of three to four days it would be a bit too early for wound infection to manifest itself.[75]

To maintain good hygiene at NORMASH, the water supply for a daily consumption of 15,000 litres was ensured with big tank wagons. The water was disinfected with chlorine and was not suitable for drinking, but was adequate for washing and for personal hygiene. Clothes and linen were washed in a US laundry. An improvised wash-basin had been set up at the entrance to the operating theatre so that everybody could wash their hands before entering and before surgical procedures. The theatre nurses organised the operating theatre to ensure that every piece of equipment had its own place. This organisation served many purposes; first it meant that everything was easier to store and keep clean when not in use and also easier to find when needed; moreover, it established clean and unclean areas in the operation theatre and surroundings. Bedpans were washed and disinfected outside. The understanding of the need for good hygiene is fundamental in nursing, and for nurses who went on to become theatre nurses, aseptic procedures became a part of daily life. 'I do believe we had good hygiene at NORMASH. This was instilled in us from home.'[76]

> I will not underestimate the use of penicillin and streptomycin, but when working in a tent on a dirt floor, we became more eager to maintain a good standard in our work. I will say we had the same standards as we did at home with regard to hygiene.[77]

The nurses' testimonies, both from the first and from last days of NORMASH, claim that there was a good standard of hygiene. They believed that it was their job to ensure good hygiene in the hospital, and this was also an important part of their education and the inner core in practice in the operating theatres.[78]

Modern warfare is often total war, with weapons that are designed to kill and maim. Both sides used artillery, anti-personnel mines,

anti-tank mines and flamethrowers. The UN forces used napalm bombs, and there are some records of bombing of allied soldiers with napalm.[79] Seeing and handling wounds caused by weapons like this made an impression on the soldiers. 'It is hard for me to remember everything that happened in Korea. The reason can be that so much of what happened makes me sad?' (quotation translated by JTL).[80] Burns did not only kill or wound people for life; they also etched a mark in the memory of helpers: 'It is impossible to describe the suffering and pain' (quotation translated by JTL).[81]

Testimonies from soldiers say that as a soldier one could read about traumatic wounds and even rehearse operating procedures, yet one could never be fully prepared for the smell of burned flesh and blood. Work such as holding retractors and forceps could make a man think about his faith and the future, as well as the future of the patient. For example, one soldier stated that the sight of a man having his fingers amputated might make his think: 'What if he played the guitar?' (quotation translated by JTL).[82] Receiving patients in great numbers could harden staff who were not trained for healthcare, although this does not appear to have had an impact on their ability to empathise with the patients.[83] Nurses also reacted to the Korean War, but they were much better prepared for what they might meet. Inga Årdalsbakke had, as a nurse in training, been called back to duty after the friendly bombing of Oslo on 31 December 1944, when seventy-nine Norwegian civilians and twenty-seven Germans were killed. She thought that if she could cope with it in Oslo, she could do so in Korea.[84] Gerd Semb maintained that she had a wealth of war experience:

> I had seen a lot of war before, and I had seen the sufferings of the civilians in Germany when I was with BAOR. But Korea – it was just a ruin with refugees everywhere. I am not sure that I handled it better than the soldiers. My advantage was that I knew what awaited me. It was work. I knew the work, and I had done it before. Except for the Sunday when the helicopters kept on coming. It was a battle near Imjin – casualties kept on coming; I thought it would never stop. That was the only time I felt that there was so little I could do. I washed many of the casualties that were lying there with a towel moistened with hot water. Many came in already dead. We could only lay them side-by-side outside the tent. That was the only time I felt inadequate in Korea.[85]

Nevertheless, the nursing of wounds and the sight and smell could be compared to daily practice. In some ways the running of a MASH bore similarities with running a civilian hospital. The participating theatre nurses and registered nurses were not given any training in war surgery, even though their mission was to run a MASH 15 km from the combat zone. Operations had to be done, the instruments were the same as they were at home, and many of the surgeons and theatre nurses knew each other from home:

> In many ways it was like back home. We did operations and did not find this to be a new thing. We didn't lack anything or experience any new thing as far as I remember. Everything was well organised.[86]

> I was on a trip in Oslo. On the main street, Karl Johan, I met a physician I had worked with. He told me that he was accepted for duty in Korea, and his wife was also going as a nurse. And then he asked me to apply and come with them. I did so.[87]

Conclusion

NORMASH was an active unit for three years, two years before the armistice and one year afterwards. During the fighting the battle casualties were high; however, the death rate at NORMASH before the armistice was as low as 0.6 per cent. For the whole period it was 1.2 per cent pre-evacuation.[88] It is possible that the low mortality rate was in part due to highly trained and experienced nurses. Without military training and war surgery courses, they were able to operate a military surgical hospital as close as 15 km to the combat zone. The high level of education and training of the nurses also made the staff flexible in the perioperative work and enabled them to train orderlies and local population in supporting tasks at the hospital.

Norway never again operated a MASH. NORMASH was sold back to USA in November 1954, when it was disbanded. Typically, as demonstrated by other historians, the nurses' stories were never sought. But the influence the Korean War had on their lives remained with them throughout their lives. Nursing practice was very little remarked upon at the time, and did not find its way, in any detail, into contemporary accounts of the work of NORMASH. However, the

oral history data presented here indicate that the four nurses interviewed were confident in their practice and dedicated to their duties as nurses. The praise of medical officers – who wrote of the nurses' impressive skills, knowledge and professionalism – does find its way into the historical record. Yet, without the study recorded here, the voices of nurses themselves would have been silent. This study demonstrates the value of oral history in both revealing the hidden nature of nursing practice and in offering persuasive evidence for the significance of nursing work.

Notes

1 Margot Isaksen, *Opplevelser ved NORMASH* [Experiences at NORMASH] Transcript of interview conducted by Jan-Thore Lockertsen (Greverud, 27 November 2012).
2 Bernhard Paus (ed.), *Rapport fra Det norske feltsykehus i Korea* (Oslo, Forsvarets sanitet, 1955), 67–8.
3 Trygve Lie, *Syv* år *for freden* (Oslo, Tiden Norsk forlag, 1954), 305–27.
4 G. Anderton, 'The birth of the British Commonwealth Division Korea', *Journal of the Royal Army Medical Corps* 99 (1953), 43–54, 49.
5 L. U. Pedersen, *Norge i Korea. Norsk innsats under Koreakrigen og senere* (Oslo, C. Huitfeldt forlag AS, 1991).
6 S. C. Woodward, 'The AMSUS History of Medicine Assay Award: The story of the mobile army surgical hospital', *Military Medicine* (July 2003), 503–13.
7 B. King, 'The Mobile Army Surgical Hospital (MASH): A military and surgical legacy', *Journal of the National Medical Association* (2005), 648–56.
8 Paus (ed.), *Rapport fra Det norske feltsykehus i Korea*.
9 Woodward, 'The AMSUS History of Medicine Assay Award, 503–13.
10 Paus (ed.), *Rapport fra Det norske feltsykehus i Korea*.
11 C. Semb, 'Fra sanitetstjenesten i Korea', in Pedersen (ed.), *Norge I Korea*.
12 M. T. Sarnecky, 'Army nurses in "the forgotten war"', *American Journal of Nursing* 11 (2001), 45–9.
13 R. Wüller, 'Med norsk feltsykehus til Korea', *Sykepleien – Organ for Norsk sykepleierforbund* 39 (1 March 1952), 126–32.
14 D. L. Hallquist, 'Development in the RN first assistant role during the Korean War', *AORN Journal* 10 (2005).
15 J. K. Fuller, *Surgical Technology – Principles and Practice*, 6th edition (St Louis, Missouri, Elsevier Saunders, 2013), 3.
16 The Boys were young Koreans who worked at NORMASH. Among them were orphans and homeless children and youngsters.

17 Q. Brunk, 'Nursing at war: Catalyst for change', *Annual Review of Nursing Research* (1997), 217–36.
18 D. F. Polit and C. T. Beck, *Nursing Research. Generating and Assessing Evidence for Nursing Practice* (Philadelphia, Wolters Kluwer Health. Lippincott Willimas & Wilkins; 2012).
19 The Norwegian brigade in BAOR is in Norway called 'Tysklandsbrigaden', The Brigade of Germany.
20 Scandinavian Mission was a joint Project by Denmark, Sweden and Norway for educating Korean health workers. The hospital still exists in Seoul.
21 The project has been ethically approved by Norwegian Social Science Data Services, NSD. Nr 25104.
22 N. S. Egelien, 'Dagbok fra Korea', in Leraand Dag (ed.), *INTOPS – norske soldater internasjonale operasjoner* (Oslo, Forsvarsmuseet, 2012).
23 Woodward, 'The AMSUS History of Medicine Assay Award, 503–13.
24 T, Treider, 'Fra Vinterkrigen til Korea', in Haakon Bull-Hansen (ed.), *I krig for fred* (Oslo, Kagge forlag AS, 2008), 41–3.
25 Paus (ed.), *Rapport fra Det norsk feltsykehus i Korea*; B. King and I. Jatoi, 'The Mobile Army Surgical Hospital (MASH): A military and surgical legacy', *Journal of the National Medical Association* (May 2005), 648–56.
26 Paus (ed.), *Rapport fra Det norske feltsykehus i Korea*; O. F.Apel, jr. and P. Apel, *MASH An Army Surgeon in Korea* (Lexington, The University Press of Kentucky, 1998).
27 S. Florelius, *Rapport fra Norges Røde Kors til Utenriksdepartementet om Det norske feltsykehus i Korea* (Oslo, The Norwegian Red Cross, 1952).
28 P. Lexow, *Opplevelser ved NORMASH* [Experiences at NORMASH] e-mail interview Lockertsen, J-Th. (16 March 2013).
29 I. Årdalsbakke, *Opplevelser ved NORMASH* [Experiences at NORMASH]. Transcript of interview conducted by Jan-Thore Lockertsen (Skei, 7 December 2012).
30 C. Malakasian, *The Korean War 1950–1953* (Oxford, Osprey Publishing, 2001).
31 Årdalsbakke, *Opplevelser ved NORMASH* (Skei, 7 December 2012).
32 Wüller, R., 'Med norsk feltsykehus i Korea', *Sykepleien – Organ for Norsk sykepleierforbund* (Oslo, Norsk sykepleierforbund, 1951), 125–32.
33 Nilssen, R. W., *Med Røde kors i Korea* (Stavanger, Misjonsselskapets forlag, 1952).
34 B. Paus, 'Medisinsk liv ved den koreanske krigsskueplass', *Tidsskrift for Den Norsk Lægeforening* 74 (January 1954), 10–15.
35 L. B. Asbjørnsen, *Fjellet med de fallende blomster – Skisser fra Korea* (Oslo, Fabritius & sønner, 1952).
36 K. R. Kleppstad, *Opplevelser ved NORMASH* [Experiences at NORMASH] Transcript of interview conducted by Jan-Thore Lockertsen (Leknes, 30 March 2011).

37 R. Andresen, *Fra norsk sanitets historie: sjefsøster forteller om kvinners innsats i militære Sykepleie* (Oslo, NKS-forlaget, 1986).
38 Paus (ed.), *Rapport fra Det norske feltsykehus i Korea*.
39 H. Henrichsen, 'Med norsk feltsykehus til Korea', *Sykepleien – Organ for norsk sykepleierforbund* (1952), 62–8.
40 Andresen, *Fra norsk sanitets historie*.
41 Semb, Gerd, *Opplevelser ved NORMASH* [Experiences at NORMASH] Transcript of interview conducted by Jan-Thore Lockertsen (Lørenskog, 20 September 2011).
42 R. Wüller, 'Brev fra Korea-søstrene', *Sykepleien – Organ for norsk sykepleierforbund* Oslo, Norsk sykepleierforbund (1951), 204–7.
43 S. Florelius, *Rapport fra Norges Røde Kors til Utenriksdepartementet om Det norske feltsykehus i Korea*.
44 J-Th. Lockertsen, 'Operasjonssykepleie ved Troms og Tromsø sykehus 1895–1974' (Master thesis, Tromsø, University of Tromsø, 2009).
45 K. Melby, *Kall og kamp – Norsk Sykepleierforbunds historie* (Oslo, J. W. Cappelens forlag AS, 1990).
46 A. Jervell (ed.), *Lærebok for sykepleiersker Vol. 1,* 2nd edn (Oslo, Farbritius og sønner, 1951).
47 Jervell (ed.), *Lærebok for sykepleiersker* vol. 1, 236–42.
48 K. E. Stømskag, *Et fag på søyler* (Oslo, Tano Aschehoug, 1999), 93.
49 Jervell (ed.), *Lærebok for sykepleiersker Vol. 2*, 2nd edn (Oslo, Farbritius og sønner, 1951), 213–41; Lockertsen, 'Operasjonssykepleie ved Troms og Tromsø sykehus 1895–1974'.
50 G. Semb, *Opplevelser ved NORMASH* (Lørenskog, 20 September, 2011).
51 G. Semb, *Opplevelser ved NORMASH* (Lørenskog, 20 September, 2011).
52 O. Schie, 'Korea i september', in Pedersen, *Norge i Korea*, 55–8.
53 T. Treider, 'Fra vinterkrigen til Korea', in Bull-Hansen, *I krig for fred*, 41–63.
54 G. Anderton, 'The birth of the British Commonwealth Division Korea', 43–54.
55 R. S. Driscoll, 'U.S. Army medical helicopters in the Korean War', *Military Medicine* (2001).
56 Årdalsbakke, *Opplevelser ved NORMASH* (Skei, 7 December, 2011).
57 Apel and Apel, *MASH An Army Surgeon in Korea*.
58 B. Paus, 'Kirurgiske erfaringer fra Det norske feltsykehuset i Korea', *Nordisk Medicin* 51, 11 (1954), 374–88.
59 C. Semb, 'Fra sanitetstjenesten i Korea', in Pedersen, *Norge i Korea*, 76–82.
60 Paus, 'Medisinsk liv ved den koreanske krigsskueplass', 10–15.
61 Hallquist, 'Development in the RN First Assistant role during the Korean War'.
62 Kleppstad, *Opplevelser ved NORMASH* (Leknes, 30 March 2011).
63 Årdalsbakke, *Opplevelser ved NORMASH* (Lørenskog, 7 December 2012).

Paper two

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The Norwegian Mobile Army Surgical Hospital in the Korean War (1951–1954): Military Hospital or Humanitarian "Sanctuary?"

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Abstract. During the Korean War (1950–1953) the Norwegian government sent a mobile army surgical hospital (MASH) to support the efforts of the United Nations (UN) Army. From the first, its status was ambiguous. The US-led military medical services believed that the "Norwegian Mobile Army Surgical Hospital" (NORMASH) was no different from any other MASH; but both its originators and its staff regarded it as a vehicle for humanitarian aid. Members of the hospital soon recognized that their status in the war zone was primarily that of a military field hospital. Yet they insisted on providing essential medical care to the local civilian population as well as trauma care to UN soldiers and prisoners of war. The ambiguities that arose from the dual mission of NORMASH are explored in this article, which pays particular attention to the experiences of nurses, as expressed in three types of source: their contemporary letters to their Matron-in-Chief; a report written by one nurse shortly after the war; and a series of oral history interviews conducted approximately 60 years later. The article concludes that the nurses of NORMASH experienced no real role-conflict. They viewed it as natural that they should offer their services to both military and civilian casualties according to need, and they experienced a sense of satisfaction from their work with both types of patient. Ultimately, the experience of Norwegian nurses in Korea

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illustrates the powerful sense of personal agency that could be experienced by nurses in forward field hospitals, where political decision-making did not impinge too forcefully on their clinical and ethical judgment as clinicians.

The Korean War and the Norwegian Mobile Army Surgical Hospital

During The Korean War (1950–1953), Norwegian medical and nursing personnel operated a Norwegian Mobile Army Surgical Hospital (NORMASH) close to the front lines of conflict. The purpose of this article is to explore the ambiguities inherent in NORMASH. It addresses the question: how and why did Norway's small mobile field hospital provide both military surgical expertise and humanitarian aid during the Korean War? The main focus of our study was on the work of nurses, and we were particularly interested in exploring their influence in molding the hospital's humanitarian emphasis. The purpose of this article is to offer insights into the ways in which the Norwegian nurses' sense of personal agency influenced the dual mission of NORMASH. Hence, it also addresses a number of supplemental questions: How and why did Norwegian nurses come to serve in a war zone far from their homeland? How did they cope with the challenges they met in Korea? And, how did their sense of themselves, as professional nurses, influence the ways in which they responded to working within the highly militaristic environment of a mobile army surgical hospital (MASH)?

The Korean War began on 25 June 1950, when North Korea attacked South Korea by crossing the 38th parallel, practically overrunning its neighboring country in a swift and decisive operation.[1] In a counter strike, a US-led United Nations (UN) Army drove the North Korean People's Army almost to the border of China. Then, in yet another wave of aggression, China entered the war and forced the UN army to withdraw to the 38th parallel. Here, the war entered a new phase as a gruelling trench war.[2] It was during this phase that NORMASH was operative—an active unit from July 1951 until 1 year after the armistice—eventually closing in October 1954. It was first located near Uijongbu in a beautiful orchard, a place so striking that the hospital came to be known as "The Orchard." Then, in September 1951, NORMASH moved to Tongduchon closer to the battle zone. On 24 June 1952, the hospital moved for the last time, to a location just over 4 kilometers to the north where it could be better defended.[3]

The hospital's Norwegian founders originally intended it to be a civilian hospital. It then developed into a military unit, before it entered a long phase during which it exhibited characteristics of both a military hospital and a center

for humanitarian aid. It was the last mobile hospital to enter the Korean War; it was also the last such hospital to leave the former battlefields. Toward the end of its time, it served little military purpose, but functioned mainly as a civilian hospital for Koreans.

NORMASH developed in several phases, from a Red Cross Hospital and center for humanitarian aid, to a military hospital, and then to a "hybrid hospital" where both soldiers and civilians were treated. These phases went beyond the inevitable evolution of a unit in response to the changing conditions of war. They appear to have been driven—at least in part—by the powerful sense of agency which enabled nurses to fulfil what they saw as a humanitarian mission. The present study of NORMASH is the first scholarly work to examine nurses' practices at NORMASH during the Korean War.

Before the Second World War, Norway had been a neutral country, but, following that war, it abandoned its neutrality—a response that may have been evoked by its experience of occupation by Nazi Germany. The Norwegian government interpreted its involvement in the Korean War not as a belligerent move, but, rather, as an attempt to bring peace to a troubled region.[4] In the event, this was the first war on foreign soil in which Norway participated. Some Norwegian sources discuss the Korean War as a part of the Cold War and view it as the spark that hastened the development the Norwegian armed forces.[5] Memoirs and diaries adopt a more personal tone. Most were written by soldiers or clergymen, and tell intimate stories: the daily life of a soldier, the workings of a scout troop; the establishment of a newspaper. The intention of this article is to add to this body of knowledge by offering observations on the work of a hitherto neglected group: nurses.[6] Memoirs, for all their eclectic and slightly random content can offer insights into the ways in which people gave meaning to their work. They were among a range of sources mobilized by this study, to give a broad insight into the operation of NORMASH. Alongside them, we placed the official documents, originally lodged in the archive of the Norwegian Armed Forces Medical Services Collection. Many of these records have been handed over to Riksarkivet, the National Archives of Norway, and can be found in Box RAFA, File 3422. The collection includes official reports produced during the war, and a variety of private letters written by nurses to their Matron-in-Chief. These letters give insight into how nurses perceived their daily life during their 6-month assignments in Korea, and enable an understanding of some of the ways in which they gave meaning to their work as both expert practice and humanitarian mission. Some of the letters were written during the nurses' stay in Korea, others shortly after their return to Norway.[7]

Oral history interviewing was a key component of the study, and we were mindful of the intended purposes of the methodology—a rigorous discipline which developed in the late twentieth century.[8] This is the first major study of the experiences, work, and perspectives of nurses at the Korean NORMASH. Very few histories have focussed on the agency of women in war zones or within humanitarian relief organizations. One notable exception is Susan Armstrong-Reid and David Murray's *Armies of Peace*, which recounts the memories of so-called "UNRRAIDS," and illustrates the ways in which they believed they were able to make a positive difference to the provision of aid, in spite of bureaucratic in-fighting at the UN Relief and Rehabilitation Administration.[9] Another is Yihong Pan's 2014 paper, "Never a Man's War," which focuses on the involvement of the women soldiers of the New Fourth Army in the Chinese War of Resistance against Japan (1937–1945). Pan's paper explores the ways in which women's own writings could "humanize" female war-participants. Her sources enabled her to gain a sense of "their daily life and work from gendered perspectives, in contrast to the Maoist stereotyped super heroine images of Communist women." Her work stresses the importance of studying women's own writings in order to capture their "own agency" adding that her reading of their personal writings convinced her that "to [these women], the war was never a man's cause."[10] Pan's re-ordering of historical categories is quite radical, and her perspective differs from ours in significant ways. Her emphasis on the link between personal writings and historical understandings of personal agency has, nevertheless, influenced our own work. The letters and accounts of the nurses who served at NORMASH, lodged in the Norwegian State Archives alongside the oral history interviews, captured these women's sense of their own personal agency, and opened-up new ways of interpreting events at NORMASH that could emphasize, for the first time, the perspectives of nurses.[11]

The History of the "Front-Line" Hospital and the Formation of NORMASH

The twentieth century saw a tremendous development in warfare from the engagement of standing armies in clearly defined and contained conflicts to the involvement of mass civilian armies fighting over vast swathes of territory. The engagement of civilian volunteer armies focused the attention of whole populations on the survival and welfare of troops and encouraged support for army medical services. The rapid transportation of wounded servicemen from battlefields to hospitals was soon recognized as being crucial to their

survival. Full scale conflicts, such as the so-called "Great War" from 1914 to 1918, brought recognition of the need to bring medical aid closer to the battle zone. This led to the development of mobile hospitals that could be deployed close to the frontline. The British Royal Army Medical Corps introduced casualty clearing hospitals that were later to be called casualty clearing stations (CCSs). These small field hospitals, located between field ambulances and stationary hospitals, were designed to offer first-line treatment—in particular to remove debris from wounds, and perform life-saving surgical procedures such as amputations—and they could host several hundred casualties.[12]

During the First World War the French Service de Santé des Armées, experimented with surgical units more mobile than CCSs. Autochirs — Ambulances Chirurgical Automobile—provided forward surgery even closer to the battlefield. The French idea was adopted by the US Army during the later years of the war.[13] The Second World War was more mobile than the First, and created a need for even more mobile units, known as auxiliary surgery groups (ASGs), which were associated with further reductions in mortality rates.[14] MASHs grew out of these developments; they were 60-bed hospitals which were designed to be highly mobile and were located 6–15 miles from the front between battalion aid stations and evacuation hospitals.[15] The Korean War is closely associated with their use.[16]

The contributions of military nurses in small field hospitals during the Korean War have received very little scholarly attention. The war has been called "the Forgotten War," and Quincealea Brunk argues that it was an unpopular service for Americans.[17] Mary Sarnecky quotes First Lieutenant Mary C. Quinn expressing the same view. Quinn had served with the US 8055 MASH and had arrived at the front at about the same time as NORMASH became operational. She experienced a barrier in communication about the war with people in the United States, finding that the Korean War was not a war people wanted to hear about.[18]

Earlier work on nurses' perspectives has been largely descriptive, often bordering on the celebratory. Two short articles in *The American Journal of Nursing*, "With the Army Nurse Corps in Korea," and "With the First MASH," give insights into both the conditions in Korea and the nature of peri-operative nursing.[19] One interesting autobiography of "The Forgotten War" is a memoir by British nurse, Jill McNair. Her experience as a nurse in the Korean War relates to the British Commonwealth General Hospital in Kure, Japan, and the British Commonwealth Zone Medical Unit in Seoul, Korea; she never served in a MASH.[20] Military historian, Eric Taylor focuses on nursing at an evacuation hospital in Pusan and on a hospital ship, rather than in a MASH close to the battlefield.[21] His focus is also on British nurses and his approach

is celebratory rather than analytical, as is that of Frances Omori, who offers a narrative of navy nurses and hospital ships.[22] A small number of articles have focussed on clinical developments, identifying medical advances, such as helicopter evacuation of causalities and technical improvements in blood bank services, as outcomes of the conflict.[23]

The Norwegian Red Cross was founded in 1865; its purpose was voluntary medical aid in war and support to the Army's Medical Services.[24] However, it had little involvement in international medical aid in war until 1912.[25] From then until 1940 the Norwegian Red Cross endowed ambulances staffed with trained nurses in four different military conflicts: The First Balkan War (1912–1913); The Finnish Civil War (27 January–15 May 1918); the Second Italo-Ethiopian War (1935–1936); and The Winter War between Soviet Union and Finland (30 November 1939–13 March 1940).[26]

The Norwegian field hospital in Korea was, initially, a Red Cross hospital administered by the Ministry of Foreign Affairs. Official histories of both the Norwegian Red Cross and the Armed Forces Medical Services mention the hospital, which was transformed into a military hospital under the control of the Ministry of Defence.[27] Kjetil Skorand mentions NORMASH, but does not consider the role of nurses or nursing.[28] Kaare Gulbransen a veteran from the ambulance in Ethiopia (1935–1936), the Ambulance in Finland (1939–1940), and The Norwegian Field Hospital in Korea (Contingent One, 1951), commented that no histories had explored the meaning of "surgeons' and nurses' hard work day and night, under conditions that were both difficult, unfamiliar and primitive."[29]

The birth of NORMASH was turbulent. From 1947 onward tensions between the United States, the Soviet Union, and their respective allies increased, and Europe became divided by what has been termed an "Iron Curtain" separating east and west blocks from 1948 to about 1990. In 1949, Norway joined the defensive alliance, known as the North Atlantic Treaty Organization (NATO). It was, at that time, the only NATO country that shared a border with the Soviet Union. In 1950, with the outbreak of the Korean War, the so-called Cold War was said to have become "hot."[30] Norway was one of the countries that had endorsed the UN' decision to oppose any aggression from North Korea against South Korea. The Secretary-General of the UN, Trygve Lie—himself a Norwegian citizen—had referred to this as a "constabulary action."[31] Norway was asked to participate in what was, without doubt, a military operation, but, in the early 1950s, the Norwegian armed forces were still under reconstruction after almost 5 years of occupation (June 10, 1940 to May 8, 1945) during the Second World War. Hence,

although there was nothing that indicated any threats in Northern Europe, The Norwegian government believed that its armed forces were needed at home and it refused to participate in the military operation, instead offering to support the Korean people with a refugee camp and a hospital.[32] Pressure was exerted on the Norwegian government by both the UN and the United States, to participate with armed forces, and, as a compromise, it eventually agreed to send a field hospital.[33] The Ministry of Foreign Affairs gave the task of planning and staffing that hospital to the Norwegian Red Cross—Norges Røde Kors.[34]

The Red Cross had two alternative plans for the organization of the field hospital. The first option was a MASH equipped like a US MASH and staffed with military personnel. The other was a Red Cross hospital staffed with civilian medical personnel serving alongside personnel with auxiliary functions and official status within the Red Cross. The Surgeon General of the Norwegian Armed Forces Medical Services was in favor of the first plan, but the Norwegian Ministry of Defence did not give permission to operate a military hospital in Korea.[35] The Norwegian field hospital was therefore designated as a civil field hospital which would offer treatment and care to combatant servicemen and would serve alongside US MASHs at the front.

The United States was the executive agent for the UN's operation in Korea, and the Norwegian field hospital was tactically placed to support the Eighth US Army in Korea (EUSAK). An agreement between Norway and the United States regulated all practical aspects of the hospital's daily operation. All supplies were to be provided by the United States.[36] In practice this meant that almost everything except personal items were of US origin. The agreement also specified that NORMASH personnel would follow orders handed down by the commanding general of the Armed Forces of the Member States of the UN in Korea.[37]

This civil Red Cross hospital was operative from July 1951, but only attained the title "The Norwegian Mobile Army Surgical Hospital (NORMASH)" in October 1951. Its main purpose was to serve combatant forces —mainly the Commonwealth Division and the First US Cavalry Division— close to the 38th Parallel. NORMASH served on equal terms with the other MASHs. During their time in Korea US MASHs increased in size from 60-bed hospitals to 200-bed hospitals. In 1951, questions were raised about whether NORMASH, with only 60 beds, was big enough to make a significant contribution.[38] A Norwegian report from November 17, 1951, responded to the challenge by stating that the question of the number of beds at NORMASH was immaterial. The Norwegian detachment served a division like the others

and had to take the patients that came in during the rushes; hence, it had to expand as and when necessary.[39]

Heavy fighting, especially in 1951, created a large number of battle causalities. The Norwegian field hospital was much needed and it was later reported that it "pulled its weight."[40] Figures for the period from the hospital's opening on July 19, 1951 to its closing down in October, 1954, suggest that approximately 90,000 individuals were treated, either as inpatients or through the polyclinic (outpatient clinic). Of these, 14,755 were inpatients—12,201 before the armistice and 2,554 between armistice and closure. This suggests that the polyclinic was highly active. Over the total period, more than 9,600 operations were said to have been performed.[41]

The Nurses of NORMASH

Norway has never had a professional army nursing corps. Nurse education in Norway was conducted in public hospitals and in the private schools of charitable organizations. Government grants helped to support both types of schools, and, in return, both were obliged to provide educated nurses for duty during catastrophes and in time of war. Yet, these nurses did not receive any military training.[42] Military field hospitals meant for use in war or during catastrophes were intended to be staffed with personnel mobilized from civil hospitals.[43] During inauguration into Red Cross service, nurses were given a military "dog tag" together with the Red Cross emblem to use if mobilized for service during war.[44]

In 1946, the Norwegian Storting (Norway's parliament) legislated to end all military training for women. This was not reversed until 1953, when women were allowed to attend army schools and courses on a voluntary basis. Nevertheless, there was demand for nursing service in the armed forces built on the engagement of civilian nurses.[45] Between 1947 and 1953, Norway provided approximately 4,000 soldiers to the British Army of the Rhine—the army of occupation in Germany. Each contingent served for 6 months as part of "national service." In every contingent there were 13 nurses: 12 "ward nurses" and 1 "head nurse." In total, 118 nurses served in Germany; others served with the standing army at home.[46]

Many of these experienced nurses went on to serve at NORMASH. Due to their experiences of the occupation, Norwegians in general felt that Norway had a moral obligation to participate in the UN operation to stop aggression from North Korea against South Korea. In addition, Norway was the homeland of UN's first Secretary-General, Trygve Lie. The fact that Norway had

been occupied by Nazi Germany has been seen as significant in motivating the Norwegian nurses to volunteer for service in Korea.[47] Most were recruited from civil hospitals. Apart from those who served during The Second World War, none had combat experience.[48] Their prior experience fuelled their motivation: the desire to offer humanitarian aid grew out of experiences of observing the suffering of compatriots.

The personnel at NORMASH changed every 6 months. Seven contingents served; in total there were 111 nurses, 22 deacons, 80 surgeons, 5 dentists, 6 pharmacists, 98 officers/NCOs, and 294 privates.[49] Many privates and some of the officers served in two contingents. Only one of the nurses, Petra Drabløs, served with two contingents. Nurses were unable to get absence of leave for more than 6 months from their work in Norway; some also had family obligations at home.[50] Furthermore, Ruth Andresen, the matron-in-chief of the army wanted as many nurses as possible to gain experience with a field hospital in case the cold war should lead to a more local conflict. She would not recommend that any individual nurse serve for more than 6 months.[51]

Nursing service at NORMASH was demanding. Clinical staff in US MASHs realized that critically wounded patients, who in earlier wars would have been dead upon arrival, were now being admitted to hospitals because of rapid evacuation via helicopters.[52] Nurses at NORMASH soon began to describe similar experiences. For this reason, Andresen favoured nurses with good general practice experience and, ideally, at least 4 years' experience as a theater nurse. Not only did the nurses have to have clinical experience and skills; they also needed to be in good health and be able to sleep in a tent for 6 months. Hence, Andresen and her medical colleagues decided that they should not be more than 40 years old.[53]

The nurses of NORMASH had not been trained to function as part of a military organization.[54] Neither had they any training in war surgery.[55] Yet NORMASH was a hospital in the midst of a war and nurses had to deal with war trauma, as well as accidents and internal medicine. The hospital was not able to treat eye and head injuries. Patients with such injuries were evacuated immediately to the rear. Bulletproof vests made of nylon gave protection for the upper body. Extremity injuries therefore accounted for 70% of the injuries according to Norwegian figures.[56] US sources have claimed that the role of nurses in trauma care developed during the Korean War.[57] US Army nurses were said to have functioned on a much higher level than in a civilian setting; hence, for this reason, Brunk has claimed, war is a catalyst for change in nursing.[58] The lack of trained theater nurses in the US Army led to formal courses in operating room techniques. During the war either a trained nurse or a technician could assist the surgeon during operations at US MASHs.[59]

Norway had not allowed men to train as nurses prior to 1948. It did, however, permit them to undergo a partial training and qualify as so-called "deacons." There were a few exceptions who received full nurse-training. Among these was, Peder Klingsheim, one of the participants interviewed for this study. He received the rank of master sergeant.[60] Some deacons felt that it was unfair that they were not commissioned as officers. But the US Army did not give rank as commissioned officers to male nurses. In a letter from the matron-in-chief, Ruth Andresen, the deacon's work was discussed. None of the deacons were specialist nurses, and Andresen mentioned that the chief surgeon (Arne Hvoslef) for one contingent of NORMASH had said that deacons could not work as theater nurses.[61] Most of them did not have an education that could justify commission as officers.

For NORMASH it seems that the necessity of using fully educated nurses during rushes became clearer as the complexity of the work increased. When a grenade exploded many soldiers threw themselves to the ground. Even though their armored vests protected their upper bodies, shrapnel caused many severe buttock wounds. Pre-operative work was intricate requiring that patients be stabilized prior to surgery. Blood transfusion was required for many patients. "I was the only trained nurse on duty and had to do all the surveillance myself," said Klingsheim.[62] Because of the incidence of adverse reactions, the administration of blood transfusions was work that could be performed only by trained nurses. With regard to the theater nurses, when the first change of contingent came after the home administration of the hospital was transferred from the Red Cross to the army, the staffing was changed and the staffing plan reduced the number of nurses. This worried Arne Hvoslef, the commanding chief of NORMASH, who wrote:

> During the last rush we operated at four tables almost the day around for weeks, and it went well; but you know, the boys (surgeons) were exhausted. And here is another thing: I think the workload was larger for the sisters (theatre nurses). We are using one for anesthesia and one for sterile assistance at each operating table. Then there is no one left for rotation, but they manage because they know that rushes do not last forever.[63]

The nurses in the operating theater had all received specialist training in theater work in Norway. They could not be replaced. They were needed for the most severely wounded. Deacons could, in case of emergency, replace ward nurses, but specialist nurses could not be replaced. Hvoslef reported that the number of trained theater nurses could not be reduced if the MASH were to function as intended.[64] His report gave rise to much discussion in Norway,

concerning the need to economize versus the need for properly educated and trained nurses in a war. The Surgeon General of the Armed Forces Medical Services wrote to the Ministry of Defense and expressed his concerns with regard to the question about nurses. NORMASH was in a different situation from US MASHs. Each MASH had a responsibility for casualties in their respective areas of the front. US MASHs could use reserves and depend on a rotation of personnel. NORMASH had no such opportunity. There were no Norwegian reserves in Korea or Japan. The only available staff were those already at the hospital. Most deacons were not fully-trained nurses and could not take over a nurse's work. The number of theater nurses could therefore not be reduced.[65]

Andresen, raised the same problem with the chief of staff. With only eight operating theater nurses in each contingent and a head nurse helping with anesthesia in emergency cases, there was no way the number of theater nurses could be reduced. In fact, she argued for an increase the number of theater nurses. The Brigade in Germany during the late 1940s had had 10 positions for nurses, but they had engaged more in order to enable a rotation of staff.[66] And the Brigade in Germany had not been at war.

The response to the Matron-in-Chief's and the Surgeon General's concern was to grant permission to increase staffing with one surgeon and two nurses if found necessary for daily operations at NORMASH.[67] Another question that was raised by the Matron-in-Chief concerned the injustice of the fact that deacon students—who had not completed their education—were better paid than fully educated nurses. Norway had not allowed nurse education for men prior to 1948. With an education of 3 years (and 2 years of training after that to become a theater nurse), no male nurse could fill a position as theater nurse at NORMASH. Nevertheless, deacons did a valuable job in many places, and some of them had experience from work in Korea or China as missionaries. One reason for using deacons was a wish to have male nurses in the combat zone.[68] The medical officers at NORMASH concluded that nurses could not be substituted with groups with less education.

There were always tasks to do in the hospital that could be handled by personnel without training. A nurse's work went beyond direct patient-care; there was also preparation. Gowning, linen, and instruments are washed, sterilized and stored for use. Gloves were not single-use; they had to be maintained and mended. Such tasks took a lot of time, so even when it was quiet on the front, the hospital worked. It was by performing these routine tasks at quiet times that it could function during rushes. Many of NORMASH's other personnel came after they had finished their daily tasks as drivers or guard soldiers to help with this important work.[69]

Coping with patients' emotional trauma was also an important aspect of nursing care. Hartvigsen commented: "We know so well the feeling, from our daily life and ourselves, the anxiety for illness and pain, for hospital and operation. We saw the same thing here."[70] Soldiers' thoughts about the future and the uncertainty of the outcome of an operation were well understood by theater nurses from their work in civilian hospitals.

Civilian Nurses in a Military Hospital

The nurses at NORMASH were female civilians in a male military culture and were not trained as army nurses. The desire to offer active war-service was not their primary motivation. The Korean War was the first time Norway had participated in such a campaign. All specialist nurses and ward nurses at NORMASH were women, apart from a small number of fully-trained male deacons. NORMASH had started-out as a civil Red Cross hospital and then been transformed into a military hospital. The nurses did not only lack military training; they also lacked experience in war surgery.

In Korea, all nurses had received US Army uniform, and were commissioned as officers in the US Army. The Commanding Chief of the first contingent of NORMASH, Herman Ramstad, was uncomfortable with the arrangement of being a civil hospital, with staff armed and ranked as officers in the US Army. In a report to his superiors in Norway he stated that the hospital had bought carbines and guns, but that it might "be best not to mention that at home." He also wrote that his superiors should consider raising the question of whether NORMASH should be a military hospital, with staff commissioned as officers, formally with the Ministry of Defence.[71] When the Norwegian government became aware, in October 1951, that it had a unit in Korea that in fact operated as a military unit, it insisted that Norwegian nurses and surgeons must be temporarily commissioned officers in the Norwegian Army.[72] However, it did not legislate to enable personnel to wear Norwegian officer's insignia. Throughout the war, the staff of NORMASH continued to wear US officers' insignia.

In retrospect it seems controversial that a Red Cross hospital was transformed into a military hospital; but it may not have been so for the medical personnel. Neither the Red Cross nor the armed forces in Norway believed that an ostensibly civilian hospital could function in the war zone in Korea. Military status was seen as necessary. Early in 1951, the Norwegian Red Cross had a welfare team in Korea—one of several from the League of Red Cross Societies. This team had a similar experience to the staff of NORMASH. Welfare

teams were all a part of the United Nations Civil Assistance Command Korea (UNCACK), but the Norwegian team was under the command of EUSAK. All welfare teams had to wear the US Army's battledress without any Red Cross or national emblems. Although the Red Cross protested and demanded to operate as independent welfare teams and not under US military command, their request was denied. The Norwegian team decided to adopt a pragmatic line. Questions about emblems were a question for their organizations. They wore the US Army battledress and carried a card with their rank, stating that this was "Valid only if captured by the enemy."[73] The Norwegian surgeon Carl Semb had in the planning process of NORMASH, held the rank of temporary major general. All negotiations were with military personnel, and officer status was necessary in order that these could take place on equal terms. The Norwegian Red Cross seemed well aware that a hospital would not be able to function at the front without military status.

The Red Cross was founded with the purpose of giving medical aid to sick and wounded soldiers in time of war. Red Cross nurses were all familiar with this ideal. Previous ambulances—apart from "the Balkan Ambulance"—had all operated with military equipment but without ensigns and emblems from the armed forces. It was only afterwards remarked that they were not fully neutral: they always had clear sympathy for one of the sides in the conflicts in which they operated.[74]

Yet nurses resisted militarization in many ways. They had their own hierarchy. In hospitals "Matron-in-Chief" was the highest position among nurses. But the Norwegian nursing profession was also a sisterhood formed through education, work and, a non-militaristic moral discipline. Nurses' letters to their Matron-in-Chief were addressed to "Dear Sister Ruth," and did not use Ruth Andresen's military rank. The rank system in the army was not natural for them. Still, the Norwegian nurses acknowledged its importance when nursing combatant personnel, and adjusted to the military system.

Since the nurses lived in a male society, officer status permitted them to associate with both officers and privates politely and as comrades. Combatants were pleasantly surprised to encounter female nurses in the war zone. A British soldier who had been at NORMASH "was adamant that he had seen female nurses at NORMASH, although he also stated that he could have been hallucinating."[75] Soldiers travelled to the unit's Officers Club and Sergeants Club in the hope of meeting its female staff:

> The fact that NORMASH housed about two dozen beautiful, blonde Norwegian nurses was undoubtedly an added attraction. These were almost never at the club, however (for obvious reasons), so that particular attraction usually faded after a while.[76]

Women reminded soldiers of home and a different life from the trenches, filth, and fighting, but not all soldiers were courteous. Peder Klingsheim, one of the deacons at NORMASH, describes some US soldiers who showed little respect for women: "They used to grab after them, but I guess they were protected by their ranks as commissioned officers."[77] Romances did occur, but they were few. Theater nurse, Margot Isaksen, met her husband-to-be, a guard soldier, in Korea; but her experience was unusual.[78] Mostly, the nurses were somewhat older than the Norwegian soldiers, and appear to have been viewed as mother figures.[79]

Gerd Semb, a veteran of the Second World War and the occupation force in Germany, served at NORMASH as a captain. She recounted a story about how she had been outside the camp, hitchhiking in a military truck. The driver broke the speed limit and was stopped by the military police, but Semb was the one who got reported. "I told him that I had not been driving the car, but he said I was the highest ranked officer and responsible."[80] Semb had not realized that she had authority over the actions of the driver, just because she outranked him. Semb also went to a ceremony in Japan with a private soldier. It was a disappointing experience for them both: where she could go, he could not, and vice versa. She spent the time alone, until she could find a plane back to Korea. The plane was transporting fresh troops on their first mission, and she found a seat between the privates. Then an officer started to admonish the soldiers:

> The young lieutenant gave them a hard speech in foul language. And then he saw that there was a woman among the soldiers. And then he noticed that I was a captain. He was so full of excuses. For the rest of the trip from Japan to Korea I was invited to sit in the cockpit.[81]

Rønnaug Wüller served as head nurse in Korea with the first contingent at NORMASH. She was given the rank of captain and then promoted to major. Afterward she reflected on the fact that without uniform and rank, she would hardly have been able to work as a nurse in a war. Military discipline and respect was gained by rank. There were very few females close to the front-line. For her, the uniform and rank induced the type of respect that was necessary to work as a nurse with male soldiers, something she never had given a thought to before.[82] And rank also provided security if captured by the enemy.

Security was, indeed, an issue. Some questioned whether female nurses should serve in the war zone at all. Major General Carl Semb stated that there had been some very serious and negative experiences for women captured by

the enemy, and he did not initially want the hospital too close to the front at the 38th Parallel.[83] The nurses of the first contingent were not ordered to the combat zone in Korea. The matter was discussed with them, and they were given the choice between staying in Pusan or travelling to the combat zone. It was the nurses themselves who volunteered to serve close to the front lines.[84]

From time to time a nurse outranked a surgeon during work in the operating theater. But there was never a question of whether the surgeon was the chief in medical matters. Yet nurses had their seniority too: instructions for private soldiers who were working in the hospital were that they, in every matter that concerned the hospital, were to receive orders from and work under the command of the nurses. This instruction was justified by the superior training of nurses and did not mention that they, as commissioned officers, outranked privates.[85]

NORMASH: A Military or a Humanitarian Endeavor?

The "Orchard" became a legend for NORMASH.[86] After arriving in Pusan, the nurses and other personnel had found themselves in a country riven by war.[87] Yet here, in the midst of the conflict, was an untouched garden—The Orchard—where a haven of hope existed. The sight was described as impressive. After a journey among ruins where only shells of concrete or stone buildings had been left, The Orchard seemed unaffected by the war. It was ripe with apples without scabs or worms, ready to be harvested.[88] Here, NORMASH was established, and officially opened on 19 July 1951.[89] The peaceful surroundings gave opportunities for both sight-seeing and entertaining. Nurse Gerd Semb brought her guitar with her to Korea. She and another nurse, Petra Drabløs, provided entertainment. On one occasion, they were invited to a US MASH. She described their experiences:

> We did not realize that it was a religious gathering, and did not know any religious songs. I said to Petra, let's take "Kom til den hvitmalte kirke" [The Church in the Wildwood]. A popular sing-along and the only song we knew with a religious text. It was not allowed for a nurse to leave the camp without company of a soldier with a gun, but I did it anyway. Once I had a Canadian sergeant drive me to the 38th Parallel. I always felt safe in the Orchard.[90]

The hospital was composed primarily of tents, alongside which were two corrugated iron buildings: a welfare building and a church.[91] This was to be the site for NORMASH for 2 months. It was very quiet along the front during

these first months, and very few combatants were wounded in action. Yet there was plenty of work. As Gerd Semb said: "People get sick, also during war."[92] During these early months of the hospital's mission, nurses appear to have felt no sense of conflict: the humanitarian emphasis of their work was to the fore.

The day before the official opening of NORMASH, on July 18, 1951, the first patient was received: a young boy named Pak. The surgeon Bernhard Paus wrote about Pak in his diary:

> July 18, 1951. We received our 1st patient; a 14-year old Korean boy severely burnt a week before. August 27, 1951. Today we brought back the severely burnt boy, Pak. I have been his doctor while he has been here.[93]

This Korean boy was only one of many children who, because of the war, were wounded and in need of specialist healthcare. Pre-war healthcare in South Korea had been limited due to a lack of resources. The war had ruined much of the infrastructure and had left practically nothing.[94] For people living close to the front, NORMASH became a natural place to seek healthcare. The young boy, Pak, was said to have "captured the clinician's hearts." After treatment, he was transported to Seoul, but he wanted to return to NORMASH.[95] Nurse Hetty Henrichsen drove to Seoul to pick him up and bring him back to The Orchard.[96] Many children were helped at NORMASH. Only a few are remembered by name. But Pak's story is not entirely one of success. One day he disappeared; he left without a trace.[97] Bernhard Paus made several attempts to locate him after the war, but was unable to track him down.[98] Not all the children needed surgical help: food, shelter, and a place to sleep were just as likely to be sought at NORMASH.[99]

When the nurses learned about the conditions of the Koreans, they passed on their knowledge to the next contingent. Travelling from Norway to Korea by plane allowed limited weight and for a half-year service everyone needed personal items of different kinds. Along with the official list of what items to bring with them there was, nevertheless, always a request to the new nurses: "The sisters beg the new sisters to bring with them as many clothes as possible for the Koreans, preferably clothes for toddlers."[100]

Caring for children continued after service in Korea. Many nurses continued to collect money and clothes for "our small friends."[101] Also before service in Korea, efforts were made to help children, by providing clothes—sometimes in such amounts that they could not be managed. In a letter to the Matron-in-Chief, a nurse wrote about the trip by plane and seeing Cairo and Bangkok, and then: "My real reason for writing to you is to ask if the children's clothes that I got in Larvik are still in Oslo? They have

not been received here [at NORMASH] yet."[102] NORMASH only remained in The Orchard for just over 2 months before it moved closer to the front, to Tongduchon—not as peaceful and romantic as The Orchard, but, strategically, a better location. Yet, it was always The Orchard of which the staff talked.[103]

The Surgeon General of the Norwegian Armed Forces Medical Services had allowed NORMASH to treat civilians who could not reach a Korean hospital. NORMASH often felt a moral obligation not to discharge these patients. The medical needs were of a character that Korean hospitals were not able to offer, ruined as those hospitals were by the war. A report from June 1952 by Colonel Hjort, chief of Hospital Contingent Three, described how surgeons in quiet periods at the front had been sent to Seoul as aid for the Korean Red Cross Hospital. Both the Korean and the Norwegian hospital wanted to continue this cooperation. Surgeons from NORMASH brought their own surgical instruments to Seoul since the Korean hospital lacked such instruments. Colonel Hjort sought advice from the surgeon general on whether this work was to be a priority. The hospital was equipped with surgical instruments for war injuries, but equipment for gynecological intervention, for instance, was not available.[104] The answer from the Surgeon General was that he looked upon humanitarian aid to the civilian population of Korea as very important, and wanted it to be continued. Yet, there must be limits: humanitarian aid had to be limited by NORMASH's primary function as a military surgical field hospital.[105]

Of NORMASH's sixty beds, staff were allowed to use 24 for civilian patients when it was quiet on the front. In reality civilian patients often occupied well over 40% of the beds. At certain times, the average was 35–40 civilian inpatients. Work at the hospital could sometimes be foreseen. If there was rain it would be quiet at NORMASH.[106] If the sound of shooting could be heard in the morning, ambulances would arrive in the afternoon.[107] When battle causalities arrived, civilians could not be evacuated since they had nowhere to go and nothing with which to support themselves. Nurses tried to separate the two groups of patients, sometimes because Korean patients had infectious diseases that were becoming rare in the Western world,[108] but also sometimes for more prosaic and pragmatic reasons: soldiers did not want to lie close to patients who ate garlic,[109] or to share tents with crying babies and old "pappasans" who were, sometimes, spitting on the floor.[110] At the laboratory a nurse remarked that she could hardly find a sample without tuberculosis, and there were times when NORMASH seemed more like a sanatorium than a MASH.[111] In May 1953, US military casualties were transferred to MASHs further away. It was not said directly—the US officers were said to be far too polite to say it directly—but the chief of hospital, Egil Moe, had the clear

impression that this was due to the fact that NORMASH had too many civilian patients, and that the hospital's reputation as a MASH had to be rebuilt.[112]

Caring for burn victims took more resources than NORMASH actually had. Wound care for one patient could take two doctors and two nurses an hour or more. During the hot season, wounds became colonized with maggots. Although this, in fact, promoted healing, the itching was intolerable for the patients. And for the nurses wound cleansing and bandaging became a difficult task.[113] Food was a limited resource: NORMASH got all its food from US supplies. This was for personnel and military patients. Koreans had to eat whatever was surplus to requirements. There were, in other words, several reasons why the number of civilians had to be limited.[114] But it was not easy to say "no." Children who had stepped on a mine or had been bombed by napalm needed professional healthcare. These conflicts between the dual missions of NORMASH continued throughout the war.

NORMASH also received prisoners of war (POWs). Like other patients, these men found a safe haven at the hospital. During the occupation of Norway, Germans had requisitioned parts of Norwegian hospitals. Nurses could not refuse to nurse German soldiers. In 1942 Gerd Semb had fled Norway to avoid nursing German soldiers, but as she said: "I can hate a system. But I can never bring myself to hate a person."[115] Such perspectives were also brought with nurses to NORMASH: when patients came to NORMASH, they were human beings rather than part of a system—individuals who required humanitarian service.

It was not only nurses with experience at hospitals who applied to serve at NORMASH. Nurses who had worked in China before the communist revolution also applied. Knowing the Chinese language was of great help. One sister mentioned this in particular when she applied for a new period in Korea in a letter to the matron-in-chief

> It has been peculiar to meet POW people. And it has been great fun to be able to speak to the Chinese prisoners. I feel so definitely that I am in the right place, and it's so strange feeling happy being able to give a little hand of help in a grey day. Again thank you, dear sister Ruth.[116]

Patients were first of all patients. Nurses triaging wounds did not also triage nationality. Only individual conditions counted when treatment was decided. Only after surgical treatment at the hospital and upon transportation to evacuation hospitals would POWs be sorted out and sent to a prison hospital near Pusan.

Blood transfusions were performed using blood from donors in the United States. Upon delivery in Korea, the blood was already between 10 and 14 days old and had to be used within a week. Bernard Paus commented:

> So it happens that in a MASH "a place in Korea" a friend or a foe, yellow, white or black patients are bedded side by side. Their lives are saved by half a litre of blood, voluntarily donated by an American man or woman living thousands of kilometres away.[117]

Some of the POWs were afraid of being poisoned by the Norwegian nurses. Propaganda had told them that they would be tortured and executed, or killed by stealth. Norwegian deacons and nurses who could speak Chinese and had worked as missionaries in China were of great help in translating and giving information about what was going on. Without such help, commencing anesthesia could be a problem. The medical condition was of course one thing, but the horror of believing that you were to be executed and would never wake up made patients fight back, trying to stay awake. A nurse who served in the second contingent later claimed that POWs, because they believed the propaganda, were often treated with greater care than allies. One of her POW patients had fought like a trapped wild animal at the beginning of narcosis: "I have seldom seen so much horror and anxiety as I saw in the eyes of that young man."[118] Inga Aardalsbakke sometimes had to taste the food or exchange the food with that of another patient before a POW dared to eat it. She claims that everybody was treated equally, no matter what his or her nationality or status.[119] A total of 172 POWs from North Korea and China received treatment at NORMASH.[120]

Some nurses at NORMASH appear to have made a deliberate choice to treat their work as a humanitarian rather than military endeavor. Their decision-making was independent of the expectations of their "commanding officers." Indeed, most did not even recognize the existence of a command structure apart from the nursing and medical hierarchies to which they were already accustomed. Their attachment to their own professional identity and their respect for their head nurse—"Sister Ruth"—engendered an independence and self-belief that seemed to insulate them from the politics of the Korean War medical services. In an account written several years after the war, Harda Hartvigsen, wrote in terms very similar to those of First World War civilian volunteer-nurse, Mary Borden, who had called her field hospital, "the second battlefield."[121] Hartvigsen's perspective evokes a similar image:

> When the cannon roars at the front, and the fighting rages, the struggle inside the hospital continues, taking in its own particular form. At the front one thing is more important than anything else: to destroy the greatest number of human beings and munitions. Inside the hospital, we fight across a different front-line: we fight against death to preserve life. Neither nationality nor colour of skin matters. The only thing that matters is the Red Cross philosophy: "inter arma caritas: between the guns, love". Friend and foe get the same treatment. In fact, sometimes maybe a foe is nursed with greater care.[122]

The nurses took pleasure in their humanitarian service. Aslaug Hårvik wrote to Andresen on 29 September, 1951:

> I feel the urge to thank you for granting me a place here. Thank you ever so much. We have a good time here—it is fun to see the people and the country, and feel the pleasure in helping soldiers, Koreans and our own people. It is no small thing to find happiness and pleasure in being one component in such a big work. I must express my heartfelt pleasure in this opportunity to serve others.[123]

In another letter, Ingrid Stafsnes declared: "we have all good things—and in addition, good humour. I must say again: 'I am glad to be alive."' She added: "To be honest, I had imagined Korea, after all I have heard, to be a dreadful place . . . [But] I am in no way disappointed. On the contrary, I am grateful for this opportunity."[124]

The sense of the "thrill" of humanitarian service that resonates through the nurses' letters carries with it a strong element of personal power and autonomy. For some of these nurses, their work in Korea went well beyond "good nursing," and the experience was one they treasured. It was also an opportunity for learning. Stafnes wrote: "Heartfelt thanks for this opportunity to travel out here. It has been a great experience for me. I have learned a lot of things—not only nursing itself, but, perhaps even more, spiritual learning."[125]

These nurses do not come across as individuals who are "following orders." Although it was extremely rare for them to actively oppose any of the instructions they were given, most appear to have had a strong sense of their own priorities. Military casualties did take precedence at NORMASH; yet, the nurses' humanitarian instincts meant that the opportunity to assist any patient who arrived at their doors—whether military or civilian—was important to them.

Conflict of Leadership at NORMASH

Three Scandinavian countries had medical humanitarian missions in Korea. Sweden had an evacuation hospital in Pusan, Denmark a hospital ship,

Jutlandia; both kept their mission civil and under national control. Norway's mission, NORMASH was a Red Cross hospital under US command. Yet, although it became a military hospital, it struggled to be a military organization.

Insofar as it was under US command, it could be questioned whether NORMASH was under Norwegian national control at all. In an official letter, written before NORMASH officially opened, its first military commander had reported that the Norwegians had become popular with the US Army because they had agreed to serve close to the front lines of the war. It was observed that the Norwegians "don't play neutral as the Swedish are doing here."[126]

The question of whether this was a Norwegian or a US detachment was not easily settled. After a year's duty at the front, the commander of a later contingent reported that NORMASH did not have a flag that would show that this was an official Norwegian hospital. Not even the ensigns used on uniforms were Norwegian. He wanted a flag for use on parade, to demonstrate Norwegian sovereignty and create esprit de corps.[127] A flag was sent from Norway, but the ensigns used continued to be those of the US Army.

The transformation of the hospital from a Red Cross hospital to a military hospital, stationed close to the battle zone, caused misunderstandings on several levels. These related to the military status both of the hospital and of its personnel, although they do not appear to have influenced the medical treatment to any considerable extent. On November 1, 1951, the administration of NORMASH was transferred from the Norwegian Foreign Ministry to military command under the Norwegian Ministry of Defence. On a question from EUSAK about the status of the hospital, the answer was that the hospital was a military unit.[128] Even when it was a Red Cross hospital, it was for practical purposes considered part of the military and pragmatically adjusted to US military rules.[129] It was not communicated well in Norway that NORMASH was active in a war and a part of a UN Army.[130] The King of Norway, Haakon the Seventh, Commander in Chief of the Norwegian Armed Forces, addressed it as a Red Cross hospital in a telegram in 1952, something that the executive officer of NORMASH for that contingent, Major Steinum, found "offensive."[131]

The king was not the only person who mistook NORMASH for a civilian Red Cross hospital. A memorandum written at NORMASH and dated 1953, expressed concern about lack of information to the personnel. There were instances of conscious objectors and men who got the "unpleasant surprise" that life in a military camp was subject to military law and behavior. Meanwhile, commissioned officers described NORMASH as a "half-civil detachment."[132]

It was this half-civil status that had the most important implications in the organization of the hospital. A MASH was supposed to move on its own,

and it was supposed to provide medical help for one particular army division.[133] NORMASH did support a division like the US MASHs, but it also operated as a Norwegian unit in a non-combatant role. This did from time to time cause friction between combatant officers and medical officers as combatant officers felt that medical officers interfered with tactical dispositions on how non-medical personnel should be used as guard soldiers. When questions were asked, the answer was that NORMASH was a hospital. Combatant officers were a support to the medical activity and the MASH was to be led by medical officers and not career officers. This arrangement may also have created a flatter structure between officers and soldiers than in US MASHs. The etiquette between officers and soldiers was said to be good but far too informal compared to the military conduct in an ordinary military detachment. This was a source of surprise to non-Norwegian visitors.[134] Peder Klingsheim was made a master sergeant. This rank was not in use in Norway—and so it did not mean much to him. Saluting was not so common, and he did not feel or think of himself as a soldier. He was a nurse in a hospital.[135]

Norway did not send Norwegian "orderlies" to serve in Korea. The first NORMASH contingent had only planned a staffing of 83 men in non-medical positions and for training to function as orderlies, and depended on employing Koreans in different positions. Eighty three men were too few to run a MASH properly. The US Army ordered a clearing company of 40 men and one officer together with an ambulance platoon to NORMASH. Some men in the clearing company were orderlies and were expected to work together with the nurses; but this proved to be a poor solution because of their limited training and their perspectives on military behavior. Norwegians had a more informal view about etiquette and more easy-going attitude toward military discipline than Americans.[136]

NORMASH: The Last Days

Norwegian nurses at NORMASH were not career officers. They were volunteer professional nurses. Their status as officers was temporary, though not without significance. In the last days of NORMASH there were incidents with the nurses where the question of whether this was a civil or a military hospital became important. It was only at this point, when the situation in Korea had changed from warfare to armistice, and the complement of patients had changed from combatant personnel to civilian Koreans, that a clash between the nurses and the chief of the hospital took place: nurses refused to attend roll

call and parade after night duty. The chief of NORMASH wrote an angry letter to the Matron-in-Chief of the Army. He claimed that he, a civilian, tried to keep up a military appearance of the hospital, and demanded to know if the nurses were civilians or soldiers.[137] The Matron-in-Chief answered both wisely and diplomatically, showing a respect for both military rules and nurses' need for rest and sleep after night duty: "Yes. They are military and subjected to military law, but can't roll call be later in the day?"[138] The question was never raised again, but it symbolized the tensions inherent in the dual identity of NORMASH as both military and civil hospital.

After the armistice in July 1953, all military units were kept in a state of preparedness for further possible hostility. As the year passed it became clear that the armistice would endure. The patient flow at NORMASH changed during the last half of 1953. Combat wounds were no longer an issue. Still, patients with trauma from road accidents, accidental gunshot wounds, and mine injuries came to the hospital. In addition, there were somatic illnesses. These patients were not evacuated to the rear as before.

The tents were starting to wear out after over 2 years use—and, in any case, there was need for better conditions than the original structures could provide.[139] The operating theater, holding and postop tents were replaced with huts made of corrugated iron; and the bed capacity was increased from 60 to 90.[140] When NORMASH began functioning as a purely civil hospital, trauma surgery was not the primary demand. Koreans living in the area needed treatment for illnesses; such patients required longer hospital stays than those receiving stabilizing surgical treatments. With the end of hostilities, the supply of bank blood ceased. Staff at NORMASH established their own blood bank for Koreans; its donors were the Korean staff at NORMASH, and the first transfusions were done in March 1954.[141]

This new demand also led to changes for the nurses in their organization and work. Two theater nurses were reassigned to ward work. As the situation was stabilized, the Norwegian nurses started an outreach project to teach practical nursing in rural areas close to the hospital. This was also reflected in hiring practices: Korean nurses were employed and trained.[142] The original Norwegian idea of NORMASH—humanitarian aid to civilians and the development of Korea's own public health system—thus became more and more visible.

In 1951 there had been an agreement between Sweden, Denmark, and Norway that they would build a university clinic in Korea to aid education of health personnel.[143] During the war there had been discussions about whether NORMASH could be transformed into a university hospital in the event of a peace settlement in Korea.[144] After the armistice, the future use of the hospital again became an issue. Carl Semb, who had negotiated the first agreement for

Norway's participation in the UN army, again played a part. For Norwegians, there was a need for clarity. Should the hospital withdraw and be dismantled; or should it be converted into a joint Scandinavian university hospital? But an armistice is not a peace settlement. EUSAK wanted the Norwegian unit to retain its capacity for emergency response. And perhaps to flatter the Norwegians, the Chief Surgeon of EUSAK, General Smith, characterized NORMASH as the best of the six MASHs that had served at the front.[145]

NORMASH was kept at the front. But when EUSAK started to withdraw from the 38th parallel it lost the last remnants of its military purpose as an emergency response unit in case of renewed hostilities. There was no army to support. As the year went on, NORMASH was left—an outpost where there had once been a war. The first problem now was that there was no logistics chain left. Figures show that for the first half of 1954, 657 inpatients out of a total of 1,059 were civilians. Of 11,697 policlinic consultations, 5,956 were civilians, and the number of civilian patients was increasing.[146]

The Chief of the Hospital, Atle Berg, reported that NORMASH was not able to give adequate treatment to civilian patients. There were too few physicians, and the unit was equipped as a surgical hospital. A permanent hospital would have other medical issues and needs to deal with. The civilians' need for hospital services was huge, but it could not be fulfilled by NORMASH by August 1954.[147] And so, that autumn, the Norwegian field hospital was dismantled.

Conclusion

During the Korean War, Norway operated a hospital close to the battle zone, from July 1951 to October 1954. The NORMASH became a safe haven for different groups, including servicemen, POW, and civilians. When it was located at "The Orchard" it was seen by the nurses as a sanctuary that offered a place of safety away from the war. For wounded soldiers it was a military hospital where they could receive expert surgical and medical care; for other soldiers it was a place to make social calls and find friends; for some civilians it became a place to seek medical services; for others it offered a bed and work. One element of their professional independence was the camaraderie and cooperation shared by NORMASH nurses; another was their evident pride in their clinical skills. Beyond this, they appear to have shared a particular sense of purpose: they viewed their work at NORMASH as, at least in part, a humanitarian mission, operating alongside the treatment of wounded and sick combatants.

Approximately 90,000 patients were said to have been treated at NORMASH—in the wards and polyclinic.[148] The hospital served a military division like any other MASH at the front, but it never really became militarized. Uniforms and ranks were a matter of convenience. There were few women at the front. The nurse's rank was a protection against unwanted attention and gave authority to her orders in the hospital

Unlike the US MASHs, NORMASH was staffed by non-military personnel acting as volunteers. One of the main concerns of these volunteers was the wellbeing of the Korean civilians and their need for healthcare, food, and clothes. The nurses appear to have identified themselves as nurses giving humanitarian aid to a small country that was the victim of aggression, just as Norway had been during the invasion by Nazi Germany in 1940–1945. The Norwegian nurses at NORMASH—the "Korea sisters"—proved themselves valuable in a combat zone. Their professional skill and knowledge was commented-upon in the later memoirs of both doctors and patients. Although not specially trained as military nurses, they had confidence in their expertise, and were able to support patients with the most devastating of wartime injuries. And even in a time of war, they were able to run a hospital that many saw as a "sanctuary"—a safe haven providing not just treatment and nursing care to military casualties but also support, resources, respite, and friendship to Korean civilians.

NORMASH nurses interviewed for this study were proud of the humanity they had shown to both soldiers and civilians in Korea. Over 60 years after his service with NORMASH, nurse Peder Klingsheim said:

> When I look upon what we did for the Korean people in Korea, what it meant for them, and the friendships and bonds we forged with them, I think that we should never send soldiers to a conflict. We got the best result when we sent physicians and nurses.[149]

Klingsheim's words reveal the sense of humanitarianism that fuelled the work of NORMASH's nurses. They also suggest that such humanitarianism can act as a powerful source of energy and motivation driving a clinical mission. Although they rarely came into conflict with the military culture of their unit, the Norwegian nurses who served at NORMASH had their own sense of a purpose beyond military service—a humanitarian mission that gave them professional identity. Their personal agendas chimed well with the motto of the International Red Cross: "Inter Armas Caritas."

Notes

1. Trygve Lie, *Syv år for Freden* (Oslo: Tiden Norsk Forlag, 1954).

2. Carter Malkasian, *The Korean War 1950–1953* (Oxford: Osprey Publishing, 2001); Bruce Cummings, *The Korean War: A History* (New York: Modern Library, 2011).

3. Lars Bakke Asbjørnsen, *Fjellet med de Fallende Blomster—Skisser fra Korea* (Oslo: Forlaget land og kirke, 1952); Lorentz Ulrik Pedersen, *Norge i Korea. Norsk Innsats under Koreakrigen og Senere* (Oslo: C. Huitfeldt Forlag, 1991).

4. Knut Einar Eriksen and Helge Øystein Pharo, *Kald Krig og Internasjonalisering 1949–1965 Norsk Utenrikspolitisk Historie Bind 5* (Oslo: Universitetsforlaget, 1997); Nils A Røhne, *De Første Skritt inn i Europa. Norsk Europa-Politikk fra 1950* (Oslo: Institutt for Forsvarsstudier, 1989).

5. Eriksen and Pharo, *Kald Krig og Internasjonaliseing*; Kjetil Skongrand, *Norsk Forsvarshistorie Vol. 4. 1940–1970. Alliert i Krig og Fred* (Bergen: Eide forlag A/S, 2004).

6. Asbjørnsen, *Fjellet med de Fallende Blomster*; Pedersen, *Norge i Korea*; Finn Bakke, ed., *NORMASH—Korea i våre hjerter* (Oslo: Norwegian Korean War Veterans Association, 2010); Olav Sandvik, *Skjebnespill—Fra Kvinnherad til Vetrinærvesents Innside* (Oslo: Norsk Vetrinærhistorisk Selskap, 2012).

7. The Norwegian nurses' leader—Sister Ruth Andresen, encouraged her staff to write detailed letters about their experiences in Korea. These letters offer particularly vivid insights into the mentalities and lived experience of the Norwegian nurses: Box RAFA, File 3422, Letters to Matron-in-Chief, Forsvarets Sanitet 1952–1954, Riksarkivet, The National Archives of Norway, Oslo. Hereafter cited as Letters to Matron-in-Chief, Riksarkivet. In addition to the letters, another written source is of particular value: an unpublished account written by one of the nurses, Harda Hartvigsen, shortly after her experiences in Korea: Box RAFA, File 3422, Harda Hartvigsen, *Det Norske Feltsykehus i Korea og dets Arbeid Blant Sivilbefolkningen, Datert 15 September 1954*, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo. Hereafter cited as Hartvigsen, *Det Norske Feltsykehus i Korea*, Riksarkivet.

8. Five former nurses were interviewed specifically for this study. Whil acknowledging that this is a limited sample of the 111 nurses and 22 deacons who served, we would emphasize that the data produced, formed one of the study's most valuable and original elements. The participants were in their eighties and nineties when interviewed. All gave written consent for their testimony to be published. In each case, consent included the specification that their contribution should be attributed to them by name. They are: Gerd Semb, Inga Ardalsbakke, Kari Roll Kleppstad, Margot Isaksen, and Peder Klingsheim. The original, signed consent forms, along with the full transcripts of the interviews are stored securely at the Arctic University, Tromso, Norway, along with signed and dated permissions letters for the reproduction of the photographs reproduced in this article. The interviewing style was open and permissive, permitting participants to determine what was significant to them. The present study owes its central emphasis and its most original finding—the identification of NORMASH as a "sanctuary" and a humanitarian mission—in part, to the quality of its oral history interview data. The oral histories add complexity and nuance to the ostensibly "factual" information contained in the official record. Ethical approval for the study was granted by the Norwegian Social Science Data Services (NSD), and included permission for the naming of oral history interview participants at their own request, and for the publication of quotations from their interviews. Historians such as Paul Thompson,

Rob Perks, and Joanna Bornat, working mostly in a British context, advocate this approach as a means for capturing particular voices—most usefully those of individuals who had been silenced by their omission from the historical record: Paul Thompson, *The Voice of the Past: Oral History*, 3rd ed. (Oxford: Oxford University Press, 2000); Joanna Bornat and Rob Perks, *Oral History, Health and Welfare* (London: Routledge, 1991). More recently, scholars such as Geertje Boschma have done much to develop oral history methodology as an approach with particular relevance for historians of nursing: Geertje Boschma et al., "Community Mental Health Post-1950: Reconsidering Nurses' and Consumers' Identities," in *Routledge Handbook on the Global History of Nursing*, ed. Patricia D'Antonio, Julie Fairman, and Jean Whelan (New York: Routledge, 2013), 237–58. Barbra Mann Wall, Nancy E. Edwards, and Marjorie L. Porter, "Textual Analysis of Retired Nurses' Oral Histories," *Nursing Inquiry* 14, no. 4 (2007): 279–88.

9. Susan Armstrong-Reid and David Murray, *Armies of Peace: Canada and the UNRRA Years* (Toronto, Canada: University of Toronto Press, 2008).

10. Yihong Pan, "Never a Man's War: The Self-Reflections of the Women Soldiers of the New Fourth Army in the War of Resistance against Japan, 1937–45," *Research on Women in Modern Chinese History/Jindai Shongguo Funu Shi Yanjiu* 24 (2014): 83–131. We are deeply indebted to Yihong Pan for forwarding us a full copy of the original, English version of her paper (which was translated into Chinese for publication)

11. On the concept of "agency" in historical work, see also: J. L. Lee, "Patient/Client Agency in American Nursing, 1900–1986" (PhD diss., University of Southern California, 1988); Annie Devenish, "Performing the Political Self: A Study of Identity Making and Self-Representation in the Autobiographies of India's First Generation of Parliamentary Women," *Women's History Review* 22, no. 2 (2013): 280–94; Manuela Scarci, *Creating Women: Representation, Self-Representation, and Agency in the Renaissance* (Toronto, Canada: Centre for Reformation and Renaissance Studies, University of Toronto, 2013); Chris Pearson, "Dogs, History and Agency," *History and Theory* 52 (2013): 128–45; David Gary Shaw, "The Torturer's Horse: Agency and Animals in History," *History and Theory* 52 (2013): 146–67. See also Charlotte Epstein, "Theorizing Agency in Hobbes's Wake: The Rational Actor, the Self, or the Speaking Subject?" *International Organization* 67 (2013): 287–316.

12. Iain Gordon and Lifeline, *A British Casualty Clearing Station on The Western Front 1918* (Stroud: The History Press, 2013); Henry Owens, *A Doctor on the Western Front: The Diary of Henry Owens 1914–1918* (Barnsley: Pen & Sword Books Ltd., 2013); Mark Harrison, *The Medical War: British Military Medicine in the First World War* (Oxford: Oxford University Press, 2010); Christine E. Hallett, *Containing Trauma: Nursing Work In The First World War* (Manchester: Manchester University Press, 2009); Christine E. Hallett, *Veiled Warriors: Allied Nurses of the First World War* (Oxford: Oxford University Press, 2014), 67–54; John Stevens and Caroline Stevens, eds., *Unknown Warriors. The Letters of Kate Luard RRC and BAR, Nursing Sister in France 1914–1918* (Stroud: The History Press, 2014).

13. Scott Christopher Woodard, "The Story of the Mobile Army Surgical Hospital," *Military Medicine* 168 (July 2003): 503–13; Sanders Marble, "Forward Surgery and Combat Hospitals: The Origin of the MASH," *Journal of the History of Medicine and Allied Sciences* 69, no. 1 (May 2012): 68–100.

14. Booker King and Ismalil Jatoi, "The Mobile Army Surgical Hospital (MASH): A Military and Surgical Legacy," *Journal of The National Medical Association* 97, no. 5 (May 2005): 648–56.

15. Woodward, "The Story of the Mobile Army Surgical Hospital," 503.

16. King and Jatoi, "Mobile Army Surgical Hospital," 656.

17. Quincealea Brunk, "Nursing at War: Catalyst for Change," *Annual Review of Nursing Research* 15 (1997): 217–36.

18. Mary T. Sarnecky, *A History of the U.S. Army Nurse Corps* (Philadelphia: University of Pennsylvania Press, 1999), 310–11.

19. Margaret G. Blake, "With the Army Nurse Corps in Korea," *The American Journal of Nursing* 51, no. 6 (1951): 387; Anonymous, "With the First MASH," *The American Journal of Nursing* 51, no. 6 (1951): 386.

20. Jill E. McNair, *A British Army Nurse in The Korean War* (Stroud: Tempus Publishing, 2007).

21. Eric Taylor, *Wartime Nurse: One Hundred Years from The Crimea to Korea 1854–1954* (London: Robert Hale Ltd., 2001), 192–207.

22. Frances Omori, *Quiet Heroes: Navy Nurses of the Korean War 1950–1953 Far East Command* (Saint Paul: Smith House Press, 2000).

23. Michael S. Baker, "Military Medical Advances Resulting from the Conflict in Korea, Part 1: Systems Advances That Enhanced Patient Survival," *Military Medicine* 177 (2012): 423–29; Bernhard Paus, "Kirurgiske erfaringer fra Det norske feltsykehus i Korea," *Nordisk medicin* 51, no. 11 (1954): 384–88.

24. Martin Sæther, *Over Alle Grenser. Norges Røde Kors 100 år* (Oslo: Aschehoug & Co, 1965).

25. Eldrid Mageli, *Med rett til å hjelpe. Historien om Norges Røde Kors* (Oslo: Pax Forlag, 2014).

26. Sæther, *Over Alle Grenser*; Magne Brekken, "Humanitær bekymring og militær begeistring: Norske beretninger fra balkankrigene 1912–1913" (Masters diss., Norwegian University of Science and Technology, Trondheim, 2006); Harald Natvig, *Fra den finske frihed krigen I 1918: Vestarmeen* (Kristiania: Mittet, 1918); Monica Janfelt, "Ambulanshjälp till Finland 1918: Nordisk Röda Kors-aktion mellan privat och offentlig nödhjälp," in *Den privat-offentliga gränsen. Det sociala arbetets strategier och aktörer i Norden 1860–1940*, ed. Janfelt Monica (København, Denmark: Nordisk Ministerråd, 1999), 301–26; Gunnar Ulland, *Under Genferkorset i Etiopia: Med den norske ambulance* (Oslo: Aschehoug, 1936); Mageli, *Med rett til å hjelpe*; Kaare Gulbransen, *Gull og grønne skoger* (Bergen: J.W. Eides Forlag, 1956).

27. Torstein Dale, *Det Norske Feltsykehus i Korea. NORMASH 1951–1954* (Oslo: Forsvarets Sanitet, 1955); Ole J. Malm, *Forsvarets Sanitet. 50 Ar Under Felles Ledelse. 1941–1991* (Oslo: Forsvarets Overkommando, 1991); Kaare Granå, *Hærens sanitet 1888–2002* (Oslo: Forsvarets Sanitet with InfoMediaHuset AS, 2004); Sæther, *Over Alle Grenser*.

28. Kjetil Skogrand, "Norge og Koreaspørsmålet, 1945–1953," (Masters diss., The University of Oslo, 1994).

29. Gulbransen, *Gull og grønne skoger*, trans. Jan-Thore Lockertsen, 343.

30. Hallvard Tjelmland, *Den kalde krigen* (Oslo: Det Norske Samlaget, 2006); Skogrand, *Norsk Forsvarshistorie*; Olav Njølstad, *Jens Chr. Hauge—Fullt og helt* (Oslo: Aschehoug, 2008).

31. Lie, *Syv år for freden*, 311.

32. Skogrand, *Norge og Koreaspørsmålet*.

33. Njølstad, *Jens Chr. Hauge—Fullt og helt*.

34. Sten Florelius, *Rapport fra Norges Røde Kors til Utenriksdepartementet* (Oslo: The Norwegian Red Cross, 1952).

35. Box RAFA, File 3422, T. Dale. Militære Grader for Personellet ved Norsk Feltsykehus til Korea av 25.04.51, Forsvarets Sanitet 1951, Riksarkivet, The National Archives of Norway, Oslo.

36. Box RAFA, File 3422, Kingdom of Norway and the United Stated of America. Agreement Between The Government of Norway and The United States of America Concerning the Participation of a Norwegian Mobile Surgical Hospital in The United Nations Operations in Korea, 17 September, 1951, Forsvarets Sanitet 1951, Riksarkivet, The National Archives of Norway, Oslo.

37. Ibid.

38. F. Otto Apel and Pat Apel, *MASH—An Army Surgeon in Korea* (Lexington: The University Press of Kentucky, 1998); Albert E. Cowdry, *The Medics' War* (Honolulu: University Press of the Pacific, 2005), 180.

39. Box RAFA, File 3422, Arne Hvoslef, Report to Surgeon General Norwegian Armed Forces Medical Services, of November 17, 1951, Forsvarets Sanitet, 1951, Riksarkivet. The National Archives of Norway, Oslo.

40. Apel and Apel, *Mash—An Army Surgeon in Korea*.

41. Florelius, *Rapport fra Norges Røde Kors*; Dale, *Det Norske Feltsykehus i Korea*, 67–68.

42. Ruth Andresen, *Fra Norsk Sanitets Historie—Kvinners Innsats i Militær Sykepleie* (Oslo: NKS-Forlaget, 1986).

43. Ole Georg Moseng, *Framvekst og profesjonalisering—Norsk Sykepleierforbund gjennom 100 år (1912–2012) Bind 1* (Oslo: Akribe AS, 2012).

44. Birgit Evensen, *Fra Sykehusloftet til MH-Bygget: Sykepleierutdanningens Historie i Tromsø* (Tromsø: Eureka Forlag, 2003).

45. Malm, *Forsvarets Sanitet. 50 Ar under Felles Ledelse*.

46. Andresen, *Fra Norsk Sanitets Historie*.

47. Olav Sandvik, *Skjebnespill: Fra Kvinnherad til Vetrinærvesents Innside*; F. Bakke, *NORMASH—Korea i Våre Hjerter* (Oslo: Norwegian Korean War Veterans Association, 2010), 16.

48. Box RAFA, File 3422, Anonymous Report Dated 10 April, 1951, Forsvarets Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo.

49. Dale, *Det Norske Feltsykehus i Korea*; Bakke, *NORMASH—Korea i Våre Hjerter*, 14–16.

50. Rønnaug Wüller, "Med Norsk Feltsykehus til Korea," *Sykepleien: Organ for Norsk sykepleierforbund* 39 (March 1952): 126–32; Gerd Semb, Oral History, January 8, 2011, conducted by Jan-Thore Lockertsen, Lørenskog, Norway. Herafter cited as Gerd Semb, Oral History.

51. Margot, Isaksen, Oral History, November 27, 2013, conducted by Jan-Thore Lockertsen, Greverud, Norway. Hereafter cited as Margot Isaksen, Oral History.

52. K. E. Van Buskirk, "The Mobile Army Surgical Hospital," *The Military Surgeon* 113 (July/December 1953): 29.

53. Box RAFA, File 3422, Heide Inga Stamnes, Letter/Report to Matron-in-Chief, Forsvarets Sanitet 1954, Riksarkivet, The National Archives of Norway, Oslo.

54. Inga Årdalsbakke, Oral History, December 7, 2011, conducted by Jan-Thore Lockertsen, Skei, Norway. Hereafter cited as Inga Årdalsbakke, Oral History.

55. Isaksen, Oral History.

56. Bernhard Paus, "Medisinsk Liv ved den Koreanske Krigsskueplass," *Tidsskrift for den Norske Lægeforening* 74, no. 1 (January 1954): 11–15.

57. Deborah L. Hallquist, "Development in the RN First Assistant Role During the Korean War," *AORN Journal* 10 (2005): 644–47.

58. Brunk, "Nursing at War: Catalyst for Change," 217–36. See also Sarnecky, *A History Of the U.S. Army Nurse Corps*.

59. Sarnecky, *A History Of the U.S. Army Nurse Corps*, 289, 305.

60. Peder, Klingsheim, Oral History, January 28, 2015, conducted by Jan-Thore Lockertsen, Askøy, Norway. Hereafter cited as Peder Klingsheim, Oral History. Klingsheim was educated between 1948 and 1952, 3 years training as nurse and an additional year in social and theological training.

61. Box RAFA, File 3422, R. Andresen, Letter from Matron-in-Chief to Chief of Staff, September 12, Fortsvarets Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo.

62. Klingsheim, Oral History.

63. Box RAFA, File 3422, Arne Hvoslef. Report to The Surgeon General, The Norwegian Armed Forsces Medical Services, November 17 1951, Forsvarets Sanitet, 1951, Riksarkivet. The National Archives of Norway, Oslo. Quotation translated by Jan-Thore Lockertsen.

64. Ibid.

65. Box RAFA, File 3422, T. Dale, Report from General Surgeon, The Norwegian Armed Forsces Medical Services to Ministry of Defense December 10, Forsvarets Sanitet, 1951, Riksarkivet. The National Archives of Norway, Oslo.

66. Letters to Matron-in-Chief, Riksarkivet.

67. Box RAFA, File 3422, Finn Backer, Response of The Royal Ministry of Defence to The General Surgeon, The Norwegian Armed Forces Medical Services, 15 December, Forsvarets Sanitet, Oslo.

68. Dale, *Det Norske Feltsykehus i Korea*.

69. Hartvigsen, *Det Norske Feltsykehus i Korea*, Riksarkivet.

70. Ibid.

71. Box RAFA, File 3422, Herman, Ramstad, Report, June 9, 1951 for The Norwegian Red Cross, June 9, 1951, Forsvarets Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo.

72. Box RAFA, File 3422, T. Dale, Letter written by Surgeon General of Norwegian Armed Forces Medical Services to The Norwegian Red Cross, October 20, 1951, Fortsvaret Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo.

73. Ragnar W. Nilssen, *Med Røde Kors i Korea* (Stavanger: Misjonsselskapets forlag, 1952).

74. Sæther, *Over Alle Grenser*; Janfelt, "Ambulanshjälp till Finland 1918," 301–26.

75. James Jacobs, *From the Imjin to the Hook: A National Service Gunner in the Korean War* (Barnsley: Pen & Sword Books Ltd., 2013), 66.

76. Colin Baker, *Wild Goose: The Life and Death of Hugh Van Oppen* (Cardiff: Mpemba Books, 2002); See also Arvid Fjære, "Vaktsoldat i NORMASH," in *NORMASH—Korea i Våre Hjerter*, ed. F. Bakke (Oslo: Norwegian Korean War Veterans Association, 2010), 21–25.

77. Klingsheim, Oral History. Quotation translated by Jan-Thore Lockertsen.

78. Isaksen, Oral History.

79. Thor Treider, "Fra Vinterkrigen til Korea," in *I krig for fred*, ed. Haakon Bull-Hansen (Oslo: Kagge forlag, 2008), 55.

80. Gerd Semb, Oral History. Quotation translated by Jan-Thore Lockertsen.

81. Ibid.

82. E. Lund, "Sykepleierskene i Moderne Krig. Beskyttelse Gjennom Militære Grader og Uniform Absolutt Nødvendig," *Adresseavisen* 186, no. 10 (January, 1952): 5.

83. Box RAFA, File 3422, Carl, Semb. Report Number Three to The Ministry of Defence, Norway, Forsvarets Sanitet, 1951, Riksarkivet. The National Archives of Norway, Oslo. On atrocities committed during the Korean War; see Philip D. Chinnery, *Korean Atrocity!Forgotten War Crimes 1950–1953* (Barnsley: Pen & Sword Books Ltd., 2009).

84. Box RAFA, File 3422, H. Ramstad, Report to The Norwegian Red Cross, dated June 9, 1951, Forsvarets Sanitet, 1951, Riksarkivet. The National Archives of Norway, Oslo; Box RAFA, File 3422, C. Semb, Report Number Four to the Ministry of Defence, Forsvarerts Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo.

85. Box RAFA, File 3422, Erling Hjort, Instructions/Standing Orders for Nurses, August 1952, Forsvarets Sanitet, 1952, Riksarkivet, The National Archives of Norway, Oslo.

86. Asbjørnsen, *Fjellet med de Fallende Blomster*, 15.

87. Unni Foss, "Over til Korea," in *Norge i Korea. Norsk Innsats under Koreakrigen og Senere*, ed. L. U. Pedersen (Oslo: C. Huitfeldt Forlag A.S, 1991), 49–52.

88. Gulbransen, *Gull og Grønne Skoger*.

89. K. Skogrand, "Norge og Koreaspørsmålet 1945–1953," (Masters diss., The University of Oslo, 1994).

90. Gerd Semb, Oral History Interview.

91. Pedersen, *Norge i Korea*.

92. Gerd Semb, Oral History Interview.

93. Bernhard Paus Falck, Private Diary, transl. Lucie, Paus, Falk, Author's own collection (Jan-Thore Lockertsen). Quotation translated by Lucie Paus Falck.

94. Nilssen, *Med Røde Kors i Korea*.

95. Gulbransen, *Gull og grønne skoger*.

96. Wüller, "Med norsk feltsykehus til Korea," 126–32.

97. Lund, "Sykepleierskene i moderne krig."

98. Lucie Paus Falck, Oral History, January 9, 2015, conducted by Jan-Thore Lockertsen, Oslo, Norway. Hereafter cited as Lucie Paus Falck, Oral History. Lucie Paus Falck is the daughter of the late Bernard Paus. After the war, she followed her father to Seoul, Korea, and worked, between 1958 and 1960, at the National Medical Center (NMC). NMC was a joint venture between Norway, Denmark, and Sweden, to educate and train Korean health personnel. It was handed over to South Korea in 1968.

99. Gerd Semb, Oral History Interview.

100. Box RAFA, File 3422, Report of April 25, 1951, Forsvarets Sanitet, Riksarkivet. The National Archives of Norway, Oslo. Quotation translated by Jan-Thore Lockertsen.

101. Box RAFA, File 3422, Ruth Andresen, "Norske sykepleiersker i Korea," Account, May 4, 1954, Riksarkivet. The National Archives of Norway, Oslo.

102. Evlyn, Nilssen, Letter, March 23, 1953, Letters to Matron-in-Chief, Riksarkivet. Quotation translated by Jan-Thore Lockertsen.

103. Pedersen, *Norge i Korea*.

104. Box RAFA, File 3422, Erling Falsen Hjort,Report from Hjort toThe General Surgeon, The Norwegian Armed Forces Medical Services, Forsvarets Sanitet, 1952, Riksarkivet. The National Archives of Norway, Oslo; Box RAFA, File 3422, Petter Sundt. Letter to The General Surgeon, The Norwegian Armed Forces Medical Servicses of 28 June, Forsvarets Sanitet, 1952, Riksarkivet. The National Archives of Norway, Oslo.

105. Box RAFA, File 3422, T. Dale. Letter from The General Surgeon, The Norwegian Armed Forces Medical Services to Chief of Hospital NORMASH, Hjort, of July 19, 1952, Forsvarets Sanitet, 1952, Riksarkivet. The National Archives of Norway, Oslo.

106. Box RAFA, File 3422, Ingrid, Stafnes. Letter to Matron-in-Chief, Ruth Andresen, March 20, 1953, Forsvarets Sanitet, 1953, Riksarkivet. The National Archives of Norway, Oslo. Hereafter cited as Stafnes, Letter to Matron-in-Chief, Riksarkivet.

107. Fjære, "Vaktsoldat i NORMASH," 21–25.

108. Nilssen, *Med Røde Kors i Korea*.

109. Hartvigsen, *Det Norske Feltsykehus i Korea*, Riksarkivet.

110. Box RAFA, File 3422, R. Andresen, Report from Head Nurse, NORMASH, to The General surgeon, The Norwegian Armed Forces Medical Services, July 5, 1952, Forsvarets Sanitet, 1952, Riksarkivet. The National Archives of Norway, Oslo. Hereafter cited as Andresen, Report from Head Nurse, July 5, 1952, Riksarkivet.

111. Stafnes, Letter to Matron-in-Chief, Riksarkivet.

112. Box RAFA, File 3422, Egil Moe, 1953. Report from Chief of Hospital, NORMASH, to The General Surgeon, Norwegian Armed Forces Medical Services, May 8, 1953, Forsvarets Sanitet, 1953, Riksarkivet. The National Archives of Norway, Oslo.

113. Hartvigsen, *Det Norske Feltsykehus i Korea*, Riksarkivet.

114. Andresen, Report from Head Nurse, July 5, 1952, Riksarkivet.

115. Gerd Semb, Oral History Interview. Quotation translated by Jan-Thore Lockertsen.

116. Box RAFA, File 3422, Aslaug Hårvik, Letter to Matron-in-Chief of September 29, 1951, Forsvarets Sanitet, 1951, Riksarkivet. The National Archives of Norway, Oslo. Hereafter cited as Hårvik, Letter to Matron-in-Chief, Riksarkivet. Quotation translated by Jan-Thore Lockertsen.

117. B. Paus, "Feltsykehuset i Korea," *Aftenposten* 92, no. 464 (October 8, 1951). Quotation translated by Jan-Thore Lockertsen.

118. Hartvigsen, *Det Norske Feltsykehus i Korea*, Riksarkivet. Quotation translated by Jan-Thore Lockertsen.

119. Årdalsbakke, Oral History.

120. Dale, *Det norske feltsykehus i Korea*.

121. Mary Borden, *The Forbidden Zone* (London: William Heinemann Ltd., 1929).

122. Hartvigsen, *Det Norske Feltsykehus i Korea*.

123. Hårvik, Letter to Matron-in-Chief, Riksarkivet. Quotation translated by Jan-Thore Lockertsen.

124. Stafsnes, Letter to Matron-in-Chief, Riksarkivet.

125. Ibid.

126. Box RAFA, File 3422, Hans Sollie, Report to Major Volckmar, the Norwegian Korea Office of June 27, 1951, Forsvarets Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo. Quotation translated by Jan-Thore Lockertsen.

127. Box RAFA, File 3422, Karl Petter Steinum, Report to The General Surgeon, The Norwegian Armed Forces Medical Services, from Administration Officer NORMASH, October 7, Forsvarets Sanitet, Riksarkivet, The National Archives of Norway, Oslo.

128. Box RAFA, File 3422, Finn Backer. The Royal Ministry of Defense to the Norwegian Royal Foreign Ministry July 3, 1952, Forsvarets Sanitet, 1952, Riksarkivet, The National Archives of Norway, Oslo.

129. Box RAFA, File 3422, Arne Hvoslef, Letter to The General Surgeon, The Norwegian Armed Forces Medical Services, 20 October 1952, Forsvarets Sanitet, 1952, Riksarkivet, The National Archives of Norway, Oslo.

130. Florelius, *Rapport fra Norges Røde Kors*.

131. Box RAFA, File 3422, K. P. Steinum, Report from Administration Officer, NORMASH, to The Norwegian Armed Forces Medical Services, August 31, 1952, Forsvarets Sanitet, Riksarkivet, The National Archives of Norway, Oslo.

132. Box RAFA, File 3422, Otto Krogh-Sørensen, Report from Administration Officer, NORMASH, to The Norwegian Armed Forces Medical Services, January 9, 1953, Forsvarets Sanitet, 1953, Riksarkivet, The National Archives of Norway, Oslo.

133. Woodard, "The Story of the Mobile Army Surgical Hospital," 503–13.

134. Box RAFA, File 3422, E. Moe. Report from Chief of Hospital, NORMASH, to The General Surgeon, The Norwegian Armed Forces Medical Services, May 8, 1953, Forsvarets Sanitet, 1953, Riksarkivet, The National Archives of Norway, Oslo.

135. Klingsheim, Oral History Interview.

136. Box RAFA, File 3422, H. Ramstad, Report from Chief of Hospital, NORMASH, to Surgeon General, Norwegians Armed Medical Services, Forsvarets Sanitet, 1951, Riksarkivet, The National Archives of Norway, Oslo.

137. Box RAFA, File 3422, Atle Berg. Military Discipline for Nurses at The Field Hospital: Enquiry from Chief of Hospital, NORMASH, to Matron-in-Chief, The Norwegian Armed Forces Medical Services, July 29, 1954, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo.

138. Box RAFA, File 3422, R. Andresen. Military Discipline for Nurses at The Field Hospital: To Chief of Hospital, NORMASH, August 7, 1954, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo. Quotation translated by Jan-Thore Lockertsen.

139. Box RAFA, File 3422, Egil Thoresen.Report from Chief of Hospital, NORMASH, to Surgeon General, Norwegian Armed Medical Services October 28, Forsvarets Sanitet, 1953 Riksarkivet, The National Archives of Norway, Oslo.

140. Box RAFA, File 3422, Ragnar Nordlie, Report from Chief of Hospital, NORMASH, to The General Surgeon, The Norwegian Armed Forces Medical Services, March 5, 1954, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo.

141. Box RAFA, File 3422, Ragnar Nordlie. Report from Chief of Hospital, NORMASH, to The General Surgeon, The Norwegian Armed Forces Medical Services, of April 7, 1954, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo.

142. Ibid.

143. Nilssen, *Med Røde kors i Korea*.

144. Box RAFA, File 3422, T. Dale, From Surgeon General, The Norwegian Armed Forces Medical Services to the Royal Ministry of Defence, page 2, Forsvarets Sanitet, 1953, Riksarkivet, The National Archives of Norway, Oslo.

145. Box RAFA, File 3422, C. Semb, To The Ministry of Defence: Further use of NORMASH after the armistice, of 3 November, Forsvarets Sanitet, 1953, Riksarkivet, The National Archives of Norway, Oslo.

146. Box RAFA, File 3422, B. Paus, The Norwegian Field Hospital in Korea: On closure or not, August 23, 1954, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo.

147. Box RAFA, File 3422, A. Berg, Chief of Hospital, NORMASH, to The General Surgeon, The Norwegian Armed Forces Medical Services: On Closure of NORMASH, of August 31, 1954, Forsvarets Sanitet, 1954, Riksarkivet, The National Archives of Norway, Oslo.

148. Dale, *Det norske feltsykehus i Korea*.

149. Klingsheim, Oral History Interview. Quotation translated by Jan-Thore Lockertsen.

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The nursing legacy of the Korea Sisters

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Abstract

Aim: During the Korean War (1950–1953), the Norwegian government sent a Mobile Army Surgical Hospital (MASH) to support the efforts of the United Nations (UN) Army. During the war, 111 Norwegian nurses served in seven contingents, each 6 month, at the Norwegian Field Hospital in Korea. The nurses were nicknamed "The Korea Sisters". The aim of this study is to explore the impact and influence of their wartime nursing on Norwegian post-Korean-War nursing.

Design: Qualitative.

Methods: The study uses several historical research approaches. Interview, archival search, search in nursing periodicals, contemporary magazines and nursing text books.

Result: The nursing legacy of The Korea Sisters can be found in changes in general nursing, uniform education of theatre nurses, uniform education of anaesthetist nurses and in humanitarian work.

KEYWORDS

education, Korean War, theatre nurses, wartime nursing

1 | INTRODUCTION

Modern nursing is unbreakable linked to Florence Nightingale and her well documented organizing of nursing in 1854–1855, during the Crimean War (1853–1856). Through improvement in sanitary conditions and carefully nursing of fever and diarrhoea at the barrack hospitals in Scutari, the mortality rate among causalities fell considerably (Elstad, Glasdam, & Bydam, 2008). Nurses knowledge and skills are tested in wartime and emergencies. Competence tried and practice expanded and changed (Helmstadter, 2015).

Wartime nursing is a growing research field among nurse historians as well as historians with interest in gender and war. Several scholarly works have been published both about specific wars and topics, as well as anthologies about nursing in wartime. For one war, however, the material is scarce. The Korean War. It is claimed that nursing in war is a catalyst for change (Brunk, 1997). Medical advancement resulting from The Korean War, have been identified and discussed (Baker, 2012), but what about nursing?

During the Korean War Norway established and ran a field hospital in Korea. Norway did not have a nursing corps or nurses trained for military service. A total of 111 civilian Norwegian nurses served at the Norwegian Mobile Army Surgical Hospital, NORMASH. The purpose of this article is to address the impact of their nursing experiences on Norwegian post-Korean-War nursing.

The Korean War started 25 June 1950 when North Korea attacked South Korea. The United Nations condemned North Korea and responded to the aggression with a peace enforcing UN Army led by the USA. The hostilities ended with an armistice 27 July 1953. One and a half million soldiers and civilians are believed to have been killed and another two and a half million mutilated or wounded.

From July 1951–November 1954 Norway participated in the UN Army with a MASH serving 15–30 km behind the combat zone. The MASHs were designed to have a capacity of 60 in-bed patients and four operation tables. The purpose was to give war causalities quick and definitive treatment. Norway did not have an army nurse corps and depended on civilian nurses to staff the field hospital. The nurses served

in seven contingents, each 6 month. A total of 9600 operations were performed at NORMASH. All in all, over 90,000 patients were received and treated (Dale, 1955). The Korean War is the largest war zone mission ever carried out by The Armed Forces Medical Services of Norway (Malm, 1951).

The nurses were nicknamed "The Korea Sisters" (Hetty & Rønnaug, 1951). During the war, Korea Sisters were interviewed in both newspapers (Aftenposten, 1952) and parish news (Hammarøy, 1953) and their humanitarian engagement in Korea was well known. After the war, the nurses faded from the public eye and their efforts are at present almost forgotten. They have not been a topic for Norwegian nurse historians (Fause & Micaelsen, 2001; Mathisen, 2006; Wyller, 1990). But among old nurses, they are still remembered and sometimes mentioned, as when one nurse said: "Sister Ragnhild [Strand] was a skilled theatre nurse, she had been in Korea" (Bockelie, 2009).

In this article, I raise this question: Whether and in what way "The Korea Sisters" experiences in Korea had any impact on Norwegian nursing, after the war? And, did the Korea Sisters humanitarian engagement in Korean, end when the Norwegian Field Hospital was terminated in October 1954?

I will highlight the nurses' educational background and their preparedness for nursing in a war zone in a country far away from Norway, while investigating outcome of their wartime nursing. Did their wartime nursing act as a catalyst for identifiable changes in education and training of Norwegian nurses?

2 | METHODS

Nursing history uses several methods in researching historical questions. In this study, archival search, memoir books, contemporary journals, nursing periodicals, nursing text books and oral history, have been used to identify participating nurses and research the impact of their practice on Norwegian post-Korean War nursing (Lewenson and Herrmann (2008); Duffin, 2010).

Two memoir books have been written about the Norwegian Field Hospital and Norwegian efforts during the Korean War (Bakke, 2010; Pedersen, 1991). These books were written by soldiers and not by nurses (an excerpt from Unni Foss' diary is included in Pedersen (1991:49–52). According to Gerd Semb, Foss's diary was given to a museum, but I have not been able to locate it—from interview with Gerd Semb, conducted by Jan-Thore Lockertsen, (Lørenskog, 20 September 2011). Andresen, Ruth's chapter "Norsk feltsykehus i Korea", in: *Fra norsk sanitets historie: sjefssøster forteller om kvinners innsats i militær sykepleie*, OSLO: NKS-forlaget, 1986:103–108, is an overview chapter about the service in Korea). The two books include the names of all 698 personnel at NORMASH and names all participating nurses. In 1960, an encyclopaedia, *Norske sykepleiere*, was published, listing most of the registered nurses in Norway and their education and practice (Straume, 1960). This encyclopaedia lists nearly every Korea Sister, as well as their practice before and the first decade after the Korean War. To identify changes in practice related to the service during the Korean War, the Norwegian Nursing Association's (NNA) periodical *Sykepleien* has been searched for topics related to theatre- and anaesthetist nursing, Korea and the expression Korea Sister for the period 1951–1980.

Oral history is considered the most effective way to collect testimonies from eyewitnesses (Thompson, 2000; Boschma, Scaia, Bonifacio, & Roberts, 2008). The Korean War ended over 60 years ago. Very few of the nurses are still alive. Six nurses and one surgeon, all in their nineties, have been identified and interviewed for this project. They have all been interviewed in their own homes in an open form. Through their stories, their own and other nurses' practices have been identified.

These sources have inspired by Lindseth and Norberg (2004), been condensed and interpreted into these themes: Pre-Korean War: educational background. Post-Korean War: general nursing; establishing a uniform theatre nurse education; theatre nursing evolves into two disciplines and humanitarian aid.

Archive search at the National Archives of Norway (Riksarkivet), Oslo and Anno Museum, Hamar, with deacon and nurse Gotfred Rekkebo's (1911–1993) private archives, have been conducted. Rekkebo served in contingent one in 1951 and did methodical produce scrapbooks before and after The Korean War. Those two archives are not holding any material related to nursing after The Korean War. They have still been useful for sure identification of names of the nurses. Obituaries and online recourses have been searched, helping illuminating nursing practices relevant for this project. The project has been ethical approved by NSD—Norwegian Centre for Research Data.

2.1 | The professional background of the nurses

NORMASH was a surgical hospital. The most demanded were nurses trained as theatre nurses. Criterions for selection of nurses was education and training and newer practice from surgical hospital. Other criterions were language knowledge and behaviour (Andresen, 1951). Their staffing plan was: one matron (head nurse) for the hospital and one head nurse for the operating theatre; seven theatre nurses cross-trained as nurse anaesthetists; two x-ray nurses; one laboratory nurses. Finally, there were six positions for ward nurses. This diagram

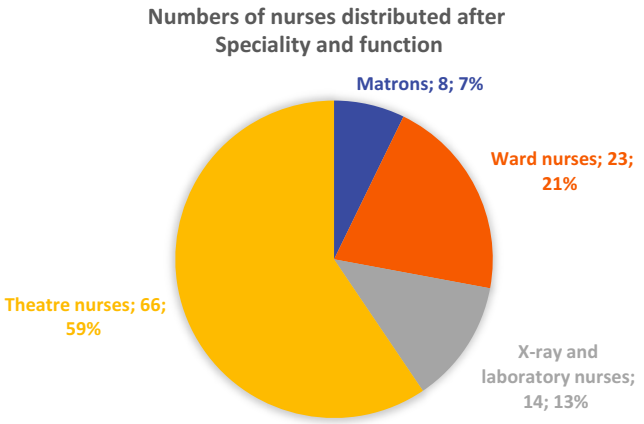

FIGURE 1 This diagram illustrates the number of nurses distributed according to speciality and function at NORMASH

illustrates the number of nurses distributed according to speciality and function at NORMASH (Figure 1).

Most of the nurses were trained as theatre nurses. Sixty-six nurses, 59%, worked in the operating theatre. Twenty-three registered nurses filled positions as ward nurses. Twenty-two deacons served at NORMASH together with the registered nurses in five contingents. Deacons were trained male nurses, but their education was mainly directed towards congregational and social work. Nurse training was mostly seen as a way into administration and social work (Stave, 1990:269). The service at the x-ray department laid the foundation for further surgical intervention. Positions as x-ray nurses and laboratory nurses were never filled according to the staffing plan.

The Korea Sisters were all educated in a 3-year programme during the years between 1930–1947. All of them had therefore experienced the Second World War and the occupation of Norway by Germany (1940–1945), either as practising nurses or as pupils. Theatre nurses' training consisted of a 1-year apprenticeships at municipal hospitals or 2-year apprenticeships at Red Cross hospitals after nurse education (Ordrop, 1953:13). The average age when serving in Korea was 34 years.

Considering the education and training of the two senior nurses in contingent one, reveals interesting information about the level of education and competence among the Korea Sisters. Matron (head nurse) Rønnaug Wüller had, as part of her training as theatre nurse, secondments in Denmark in 1939–1940 and had courses in hospital administration from both Denmark and England. Before her service in Korea, she had held positions as head nurse in both medical and surgical departments. Also head nurse operating theatre, Orlaug Sofie Haarvik had further education in administration and teaching. In addition, she was educated as a missionary and had been head nurse in a Norwegian hospital in central China between 1946–1950. Analyses of the background of the other Korea Sisters support the impression that the nurses were skilled and experienced nurses (Straume, 1960).

Through membership in the International Council of Nurses, NNA was oriented towards international cooperation between nurses. Members were encouraged to travel abroad for secondments and further education (Hvalvik, 2005). Secondments abroad to study surgical techniques and new methods, as well as design of operation theatres, were encouraged and became popular. Twenty-four of the theatre nurses at NORMASH are reported to have studied or had secondments in hospitals abroad, mostly in operation theatres (Isaksen, 2012; Straume, 1960). Some nurses also used the opportunity to visit USA for to study nursing after finishing their service at NORMASH (Andresen, 1951).

In 1925, NNA founded a school for further education in nursing, where courses in hospital administration and administration of operation theatres, teaching and public health nursing and social work were taught (Melby, 2000). Ten Korea Sisters had further education from NNAs school in addition to theatre nurse training, eight in hospital administration and administration of operating theatres and two in social work. Four of the theatre nurses had also worked for the WHO as vaccinators in programmes for preventing tuberculosis. Two were midwives. In addition to the theatre nurses, seven of the other nurses were trained as specialists in laboratory nursing and seven in x-ray nursing (Straume, 1960).

In 1948, theatre nurses in Oslo formed and organized an interest groups that sought to influence their working conditions. The primary goal of the theatre nurses' interest group was to form a uniformed education in theatre nursing. Interest groups like the theatre nurses, Norsk Sykepleierforbunds Landsorganisasjon av operasjonssykepleiere (NSFLOS), were very influential in the NNA when it came to professional issues (Lund, 2012). Nineteen later Korea Sisters were active in NSFLOS from the very start. One of them, Berit Røe, designed the emblem still used by NSFLOS today (Høiland, 1996).

In October 1954, NORMASH stopped receiving new patients and in November 1954 it closed. The Korea Sisters had performed war surgery and trauma surgery like no countrymen before them. They taught soldiers, chauffeurs, cooks and others in basic nursing techniques and supervised them during rushes when all hands were needed in the operation theatre to take care of causalities and had experienced wartime nursing in a way unknown to fellow nurses (Granå, 2004). After the armistice, NORMASH came to function as a civilian hospital as much as a military hospital. The Korea Sisters also started training Koreans in nursing as part of the reconstruction of Korea.

The Korea Sisters was as a group nurse's eager to form and develop professional standards for nursing. Before the Korean War, they had sought both training and education international. National, they were engaged in developing the training of theatre nurses to a national uniform education. Had the nurse's newly acquired wartime nursing practices any impact on Norwegian nursing after the Korean War? Was their hardship only an intermezzo in their lives and Norwegian nursing? Did they just go on back to Norwegian operating theatres or other branches of nursing, without using their experiences for the benefit of Norwegian nursing?

3 | THE KOREA SISTERS IMPACT OF NURSING PRACTICE IN NORWEGIAN NURSING

3.1 | General nursing

The MASH concept, with a moveable hospital close to the battlefield, was first tried out in the Korean War. Rapid evacuation, closeness to the battlefront and the high number of causalities provided much clinical practice in trauma reception and trauma surgery. Infection control with antibiotics was routinely used on all traumas, which lowered the mortality rate. But antibiotics could not substitute for nursing skills in wound treatment and infection control. The nurses experienced that mechanical debridement of wounds and delayed primary closure was necessary (Hartvigsen, 1954; Paus,1954). Similar advantages of delayed closure were later experienced by Australian field hospitals in 1967 during the Vietnam War (Biedermann, 2002:337).

Mobile facilities like MASH demonstrated the value of early definite care, which has since been adopted in civilian health care and disaster preparedness (Gawronski, 2015). In Norway, Korea Sisters were

a great part of introducing this new knowledge into general nursing. Several of them became matrons and head nurses in hospitals and in charge of the nursing services at their hospitals or wards. Matrons were also in charge for education and training of nurses at their respective hospitals (Melby, 2000).

Still, most of the Korea Sisters were active as theatre nurses or nurse anaesthetists. Many of them were gainfully employed until the late 1970s. All nurse pupils and from 1976 students, in Norway, had long practice as a part of their education at the operation theatre at least until the 1980s. They met Korea Sisters or other nurses who had learnt much of their practice at NORMASH. Korea Sisters are also known to have given lecturers on military nursing to nurse pupils (Johansen, 2007) and rescue corps based on principles learnt from service in Korea (Karlsen, 2016). Up to the late 1990s, many students and nurses also used the handbook, "Prosedyrebok for sykepleiere", drafted by Korea Sister Berit Røe et co (Røe & Martinsen, 1986).

Theatre nurses at NORMASH were deployed for no more than one term in Korea. Chief Nurse of the Army, also a Korea Sister, Ruth Andresen, wanted as many nurses as possible to have the experience in case similar situations arose in Norway. Many of the Korea Sisters joined the army reserve afterwards, ensuring that Norway had theatre nurses with first-hand experiences in operating mobile hospitals and handling many patients needing surgical intervention in a war zone (Sykepleien, 1976).

One of the Korea Sisters, Hetty Henrichsen, advanced from assistant executive secretary to executive secretary and finally leader of the Norwegian Nursing Association between 1965–1967, the most influential position for a nurse in Norway (Lund, 2012). During her period as leader, NNA launched the textbook series "Lærebok for sykepleieskoler" in twelve volumes (Henrichsen, 1967).

3.2 | Establishing a uniform theatre nurse education

The Korean War was not the first war where knowledge of Norwegian theatre nurses was sought. Already during the First Balkan War (Oct. 1912–May 1913), five theatre nurses were part of a Norwegian ambulance. They were selected for this mission because they were theatre nurses (Norsk Sykepleierske-Forbund, 1912). Norwegian theatre nurses were also engaged in Finland during the Finnish Civil War (1917–1918) (Natvig, 1918) and in Finland again during the Winter War between Finland and the Soviet Union (1939–1940). Theatre nursing was recognized as a specialization, but there was no formal education in theatre nursing.

The preparation for the Norwegian Nursing Act of 1948 showed a consensus in Norway for establishing theatre nursing as a specialization building on 3-year uniform education as a nurse (Ot.prp. nr. 31, 1948). But a curriculum with a programme in theatre nursing did not exist, only a training (Wyller, 1956). It consisted of 1 year of training or 2 years of internal training in an operation theatre (Ordrop, 1953:13). This was too haphazard for the theatre nurses themselves. The Korean War provides examples of up-to-date theatre nursing, but also the opposite can be seen.

There are records of assistance being provided without sterile gown and gloves at NORMASH. While this shows handiness, such practices were also outdated and could pose a potential risk of infection for patients. Without national guidelines and nursing instructors, old techniques and techniques not brought up to date with the newest knowledge might nevertheless end up being standard procedures at some hospitals. Establishing a national standard for nursing in operation theatres was a priority. Through their own profession group, NSFLOS, theatre nurses worked to establish a uniform education for theatre nurses.

Korea Sisters were active in NSFLOS effort to establish a uniform education for theatre nurses. In a letter dated 1959 from Hetty Henrichsen, then the executive secretary of NNA, to Korea Sister Kitty Tyskø, it is stated that status regarding the work with a theatre nurse education would be given at the forthcoming national congress (Henrichsen, 1959). A year later, Tyskø oversaw the development of a curriculum for theatre nursing training at the Hospital in Akershus (Hvoslef & Jørgensen, 1976).

Not all work in an operating theatre had to be done by nurses. The Korea Sisters themselves had good experiences with delegating theatre nurses' tasks to assistants. Maintaining instruments, packing and sterilization were tasks they delegated to civilian Koreans and guard soldiers in their spare time—and with very good results, according to Kari Roll Klepstad (Klepstad, 2011). After retiring from NNA in 1967, Hetty Henrichsen became active in establishing an education for auxiliary nurses. Regarding the patient-related work, the high nursing competence among the Korea Sisters has been taken to be one of the main factors for the good results achieved at NORMASH (Moe, 1953). The question about substituting theatre nurses with personnel with less education, like auxiliary nurses, in role of theatre nurses, was discussed, but never serious considered (Lockertsen, 2009). This was probably due to the good experiences with using only competent personnel at NORMASH.

The Korea Sisters contributed to various parts of the struggle to establish a uniform theatre nurse education. In Korea, they had shown what educated nurses could do in a crisis. Back home in Norway they contributed to daily work in operating theatres, some of them in senior positions as head nurses for the operating theatres, where they were responsible for the instruction of theatre nurses. Others, like nurse Berit Røe, had more formal training as teachers. Several hospitals developed curricula and employed teaching managers, making the education of theatre nurses more structured and formal.

With such efforts being made in many hospitals, it was only a question of time before NSFLOS's curricula became the start of education after national guidelines. By 1973, curricula from the theatre nurses were used from Bodø in the north of Norway to Arendal in the south (Gjendem, 1974). By 1975, all main hospitals in Norway educated theatre nurses following national guidelines that ensured a uniform programme of education.

3.3 | Theatre nursing evolves into two disciplines

Norway got the first specialist in anaesthesiology in 1947 (Skagestad, 1999). Without anaesthesiologist, the standard procedure in Norway

was that the surgeon had the responsibility for anaesthesia and a theatre nurse conducted anaesthesia. This solution was continued at NORMASH. It worked for injuries in the extremities and even in the abdomen. But it became very clear that war surgery, demanded more knowledge. For thoracic surgery, more expertise was needed. Neither the theatre nurses nor the surgeons at NORMASH had sufficient knowledge in anaesthesiology for surgical procedures on severely wounded patients with thoracic and chest traumas (Lind, 2015). From the second contingent on, eight of the ten practising anaesthesiologists in Norway, served at NORMASH, working closely with the theatre nurses forming standards for wartime anaesthetist nursing (Lind, 1953).

Theatre nurses were aware that their profession needed more specialized knowledge of anaesthesiology, than cross-training in anaesthetist nursing. In the years between 1945–1950 travels to Denmark to attend courses or have secondments in anaesthetist nursing, was not uncommon. Among the Korea Sisters, titles like "theatre nurse and nurse anaesthetist" can be found and in the first few years after Korea, several Korea Sisters used only "nurse anaesthetist" (Straume, 1960). This might indicate that theatre nurses themselves defined it as a separate specialization and thereby started to divide theatre nursing into two specialities.

In the 1950s, only brief courses for nurse anaesthetist existed, in Norway. These courses were discontinued because cross-trained theatre nurses were given too much responsibility and were in some hospitals expected to fill the position of a physician who had specialized in anaesthesiology (Lind, 1965). The anaesthesiologists were too few to serve all hospitals in Norway. As an example, Korea Sister Ragnhild Strand at Tromsø Hospital was responsible for training theatre nurses and cross-training in anaesthesia from 1955–1965 with no anaesthesiologist at the hospital.

The Korea Sisters participated in the development of an education for nurse anaesthetists. Korea Sister Ruth Nordby was the first chairman and one of the founding members of the interest group for nurse anaesthetists in 1957. The primary goal for this group was establishing of a uniformed education for nurse anaesthetists (Hopen, Jansen, Engevik, & Olsen, 2013). At the Hospital in Akershus, Korea Sister Mary Jensen oversaw developing a curriculum and education programme for nurse anaesthetists (Hvoslef & Jørgensen, 1976). In 1965, the NNA approved Nurse Anaesthetist as a separate speciality, rather than a branch of theatre nursing. Still, most theatre nurses were cross-trained in anaesthesia until a nationwide education programme following national guidelines was established in 1974–1975.

For decades, nurses had travelled abroad to seek secondments as part of their training. Other countries' nursing knowledge became known to and studied by Norwegian nurses. The Korean War was a meeting point with nursing traditions of other countries. NORMASH was in many ways a whole hospital in secondment. Anaesthesiology was not properly covered by specialists and theatre nurses were unable to provide the anaesthesia needed. The Korean War accelerated the separation of anaesthetist nursing from theatre nursing and development of a formal education for nurse anaesthetists.

3.4 | Humanitarian aid

The end of NORMASH was not the end of the Korea Sisters' engagement on behalf of Korea. Already in 1951, it was preliminary decided that a joint Scandinavian hospital should be established. In 1956, Sweden, Norway, Denmark, The Republic of Korea and the UN agreed in establishing a medical centre for training health personnel (United Nations Korean Reconstruction Agency, 1956). On 2 October 1958, the National Medical Centre (NMC) in Seoul was opened and it was run by the three Scandinavian countries for 10 years before being transferred to the Koreans in 1968.

During that decade, 216 Scandinavian nurses served at the NMC and nine of the 58 Norwegian nurses had previously worked at NORMASH (Bakke, 2010). The impact of Scandinavian nursing is recognized by nurses in Korea: "Though not calculated by a scientific measure, it is presumed that the Danish, Norwegian and Swedish influence on nursing profession in Korea is immense" (Halm, Kim, Lee, & Park, 1998). NMC is still a working hospital in Seoul, Korea. The nurses who contributed to the reconstruction of South Korean health care by serving as head nurses and nursing instructors at NMC must, in a broader sense, be named Korea Sisters. Through cooperation with nurses from Denmark and Sweden they gained experiences that they later brought home to Norway.

The NMC was a humanitarian project with the purpose of contributing to reconstructing Korean health care after a war. Inga Årdalsbakke served both at NORMASH and at NMC. She considered NMC to be a continuation of NORMASH (Årdalsbakke, 2013). Via the Korean War the NMC provided the ignition for Norwegian nurses to participate in organized humanitarian work on a larger scale than missionary nursing. In fact, Norwegian studies indicate that nurses participating in missions in war zones after the Korean War primarily view themselves as participating in humanitarian aid (Tjoflåt, 1996). For Norway as a nation, the NMC is recond as a part of the start of establishing Norway as a humanitarian superpower (Berg, 2016:143).

4 | CONCLUSION

Civilian nurses participated in this first Norwegian foreign war mission after the Second World War. A closer look at the professional background of the nurses indicates that they were highly competent regarding serving in a field hospital in a war. The success of NORMASH as a hospital in a war indicates the same. Wartime nursing at NORMASH can most probably be attributable as the catalyst for identifiable changes in Norwegian nursing and education of nurses. The nurses' impact on Norwegian nursing and education of nurses, may be identified in four fields:

First: The Korea Sisters' clinical practice and surgical techniques were transferred to Norwegian nursing through daily work and lectures. Principles of treatment learnt in Korea were probably introduced into Norwegian nursing before they were introduced to

nursing in other countries since nurses went back to work at civilian hospitals.

Second: Norwegian theatre nursing proved to be important practice for wartime nursing in Korea. Still, the nurses themselves realized that 1 or 2 years of internal training at a hospital's operation theatre was insufficient. They wanted a nationwide, uniform education with an authorization. Through theatre nurse's own profession group, the Korea Sisters also took part in drawing up a curriculum and working out a nationwide uniform education for theatre nurses. This programme became a reality in Norway in 1974–1975. The Korean War had shown that well-educated theatre nurses were essential in the operating team. Their experiences also showed that tasks not related to patients but rather to logistics, such as preparation and sterilization of surgical instruments, could be delegated to non-nurses.

Third: Nurse anaesthesia was performed by theatre nurses cross-trained in anaesthesia and for some nurses, additional short course. The service in Korea revealed weaknesses in this area of nursing. Complicated cases required both anaesthesiologists and educated nurse anaesthetists. Theatre nurses with an interest in anaesthetist nursing were, after Korea, involved in dividing theatre nursing into two disciplines and establishing a nurse anaesthetist education in Norway.

Fourth: Norwegian nursing during the Korean War led to active participation in reconstruction and rebuilding of Korean health care. Sweden, Denmark and Norway continued their non-combatant roles with the establishment of the National Medical Centre, with the purpose of educating nurses and physicians. Still more research is needed.

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CONFLICT OF INTEREST

There is no conflict of interest to be declared by the authors of The Nursing Legacy of the Korea Sisters.

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REFERENCES

Aftenposten. (1952). *Tredje kontingent til feltsykehuset er ferdig uttatt*. Oslo, Norway: Aftenposten. 28 April.

Andresen, R. (1951). Søstertjenesten ved Det norske feltsykehuset i Korea. *Tidsskriftet Sykepleien*, *38*(19), 369–370.

Årdalsbakke, I. (2013). Opplevelser ved NORMASH [Experiences at NORMASH]. Transcript of interview conducted by Lockertsen, J-Th. Skei: 7 December.

Baker, M. S. (2012). Military medical advances resulting from the conflict in Korea, Part 1: Systems advances that enhanced patient survival. *Military Medicine*, *177*, 423–429. Part 2: Historic clinical accomplishments. *Military Medicine*, *177*, 430–435.

Bakke, F. (2010). *NORMASH: Korea i våre hjerter*. Oslo: Norwegian Korean War Veterans Association.

Berg, R. (2016). *Norsk utanrikspolitikk etter 1814*. Oslo: Samlaget.

Biedermann, N. (2002). Experiences of Australian army theatre nurses. *AORN Journal*, *75*(2), 335–346.

Bockelie, H. R. (2009). Minner fra sykepleierutdanningen i Tromsø. [interv.] J-T Lockertsen. 10 January. Unpublished

Boschma, G., Scaia, M., Bonifacio, N., & Roberts, E. (2008). Oral history research. In S. B. Lewenson, & E. K. Herrmann (Eds.), *Capturing nursing history: A guide to historical methods in research* (pp. 79–98). New York: Springer.

Brunk, Q. (1997). Nursing at war: Catalyst for change. *Annual Review of Nursing Research*, *15*, 217–236

Dale, T. (1955). *Det norske feltsykehuset i Korea. NORMASH 1951-1954*. Oslo: Forsvarets sanitet.

Duffin, J. (2010). *History of medicine: A scandalously short introduction* (2nd edn). Toronto: Toronto University Press.

Elstad, I. (2008). Florence Nightingale og sygeplejen. In S. Glasdam, & J. Bydam (Eds.), *Sygepleje i fortid og nutid – historiske indblik*. København: Nyt Nordisk Forlag Arnold Busck, 64–86

Fause, Å., & Micaelsen, A. (2001). *Et fag i kamp for livet. Sykepleiens historie i Norge*. Bergen: Fagbokforlaget Vigmostad & Bjørke AS.

Gawronski, D. P. (2015). Trauma Surgery. In J. C. Rothrock. *Alexander's care of the patient in surgery*. St. Louis, Missouri: Elsevier Mosby, 1104–1131.

Gjendem, S. (1974). Vedrørende utdanning av operasjonssykepleiere. Oslo: NSF-LOS, Lokalgruppe Tromsø. Brev fra formann NSF-LOS til Utdannelsesrådet for helsepersonell ved Regionsykehuset i Tromsø. 26 February.

Granå, K. T. (2004). *Hærens sanitet 1888–2002*. Oslo: Forsvarets sanitet i samarbeid med InfoMedia Huset AS.

Halm, Y. B., Kim, S. J., Lee, D. R., & Park, C. J. (1998). *Nursing at the national medical centre 1958–1968. The impact of the Scandinavian influence to nursing in Korea*. Seoul: Department of Nursing The National Medical Centre.

Hammarøy, M. (1953). Diakonisse Harda Hartvigsen, Egerdal. s.l. : Hammarøy menighetsråd, 3, 3-4.

Hartvigsen, H. (1954). *Det norske feltsykehuset i Korea og dets arbeid blant sivilbefolkningen*. Oslo: Nasjonal arkivet. The National Archives of Norway. RAFA-3452 Forsvarets sanitet.

Helmstadter, C.. (2015). Class, gender and professional expertise: British military nursing in the Crimean War. In J. Brooks & C. E. Hallett (Eds.). *One hundred years of wartime nursing practices, 1854-1953*. Manchester: Manchester University Press, 23–41

Henrichsen, H. (1959). Operasjonssøster Kitty Tyskø. Ad. Gruppemøte for operasjonssykepleiere i forbindelse med Landsmøtet 1959. Oslo: Riksarkivet. The National Archives of Norway. RAPA – 1270. Norsk Sykepleierforbund, 13 April.

Henrichsen, H. (1967). Forord. In K. Lerheim (Ed.), *Lærebok for sykepleieskoler, Bind 1* (pp. 1–2). Oslo: Norsk sykepleierforbund.

Hetty, S. & Rønnaug, S. (1951). Brev fra Kora-søstrene. *Tidsskriftet Sykepleien*, Juli *38* (*11*): 204–206. Henrichsen H and Wüller R, used here "sister" and given name. This was according to Red Cross tradition using sister and given name, not surname.

Høiland, M. (1996). *Operasjonssykepleie i mer enn 40 år*. Oslo: Norsk sykepleierforbunds Landsgruppe av operasjonssykepleiere.

Hopen, T. S., Jansen, S. B. G., Engevik, T., & Olsen, M. V. (2013). *Et historisk blikk på anestesisykepleie i Norge, 1845–1913*. Oslo: ALNSF.

Hvalvik, S. (2005). *Bergljot Larsson og den moderne sykepleien*. Oslo: Akribe.

Hvoslef, L., & Jørgensen, I. J. (1976). Spesialutdanning av sykepleiere i Operasjons-, Anestesi og Intensiv/Recoveryavdelingen ved Sentralsykehuset i Akershus. *Tidsskrifet Sykepleien. Organ for Norsk Sykepleierforbund*, *63*(3), 153–154.

Isaksen, M. (2012). Opplevelser ved NORMASH [Experiences at NORMASH] Transcript of interview conducted by Lockertsen, J-Th. Greverud: 27 November.

Johansen, Å. (2007). *Når søster er en bror*. Bodø: Norske kvinners sanitetsforening.

Karlsen, A. A.. (2016). Arkiv i Norland. [Internett] 14 Juli 2016. http://www.arkivinordland.no/aktuelt/sigrid-bugge-organist-og-sykepleier.842836.aspx. [last accessed 2016 September 2016].

Klepstad, K. R. (2011). Opplevelser ved NORMASH [Experiences at NORMASH]. Transcript of interview conducted by Lockertsen, J-Th. Kleppstad: 31 March.

Lewenson, S. B., & Herrmann, E. K. (2008). *Capturing nursing history: A guide to historical methods in research*. New York: Springer.

Lind, B. (1953). Retningslinjer for anestesiarbeidet ved Det norske feltsykehus. Rapport fra anestesilegen ved NORMASH. Oslo: Riksarkivet. The National Archives of Norway. RAFA-3452 Forsvarets sanitet.

Lind, B. (1965). Anestesisykepleierutdannelsen i støpeskjeen. *Sykepleien. Organ for Norsk Sykepleierforbund*, *51*(11), 244.

Lind, B. (2015). Opplevelser ved NORMASH [Experiences at NORMASH]. Transcript of interview conducted by Lockertsen, J-Th. Akershus 18 March.

Lindseth, A., & Norberg, A. (2004). A phenomenological hermeneutical method for researching lived experience. *Scand J Caring Sci*, *18*, 145–153.

Lockertsen, J.-T. (2009). Operasjonssykepleie ved Troms og Tromsø sykehus, 1895-1974. Master Thesis in Health Science. Universitet i Tromsø, Tromsø.

Lund, E. C. (2012). *Virke og profesjon. Norsk Sykepleierforbund gjennom 100 år (1912 - 2012)*. Oslo: Akribe.

Malm, O. J. (1951). *Forsvarets sanitet: 50 år under felles ledelse*. Oslo: Forsvarets overkommando.

Mathisen, J. (2006). *Sykepleiehistorie: Ideer – mennesker – muligheter* (2nd edn). Oslo: Gyldendal Akademiske.

Melby, K. (2000). *Kall og kamp. Norsk Sykepleierforbunds historie*. Oslo: Norsk Sykepleierforbund og J.W. Cappelsens Forlag A.S.

Moe, E. (1953). Det norske feltsykehuset i Korea. Rapport av 30 juni 1953. s.l. : Riksarkivet. The National Archives of Norway. RAFA-3452 Forsvarets sanitet, 30 Juni.

Natvig, H. (1918). Fra den finske frihetskrig 1918 Vestarméen Kristiania: Mittet & Co. Kustforlag.

Ordrop, E. (1953). Hva ligger i uttrykket spesialutdannet sykepleier?. *Tidsskriftet Sykepleien*, *41*(13), 13.

Ot.prp. nr. 31. (1948). Om lov om utdannelse og offentlig godkjennelse av sykepleiere. Oslo: s.n.

Paus, B. (1954). Kirurgiske erfaringer fra Det norske feltsykehuset i Korea. *Nordisk Medicin*, *51*(11), 384–388.

Pedersen, L. U. (1991). *Norge i Korea. Norsk innsats under Koreakrigen og senere*. Oslo: C. Huitfeldt Forlag A.S.

Røe, B., & Martinsen, T. (1986). *Prosedyrebok for sykepleiere*. Oslo: Gyldendal.

Skagestad, K. E. (1999). *Et fag på søyler: Anestesiens historie i Norge*. Oslo: Tank Aschehoug.

Stave, G. (1990). *Mannsmot og tenarsinn*. Oslo: Det norske samlaget.

Straume, J. B. (1960). *Norske sykepleiere, Bind 1 & 2*. Oslo: Athene.

Sykepleien, T. (1976). Major, chief nurse ruth andresen leaves defense health service after 30 years of service. *Tidsskrifet Sykepleien*, *63*(2), 68–72.

Sykepleierske-Forbund, N. (1912). Vore søstre paa krigsskueplassen. *Sykepleien. Organ for Norsk Sykepleierske-Forbund*, *1*(2), 8–10.

Thompson, P. (2000). *The voice of the past: Oral history* (3rd edn). Oxford: Oxford University Press.

Tjoflåt, I.. (1996). Erfaringer fra arbeid i krigsområder. en beskrivende studie som kartlegger norske sykepleieres erfaringer fra arbeid i krigsområder. [Master Thesis]. Universitet i Oslo, Oslo.

United Nations Korean Reconstruction Agency. (1956). Agreement (with Annex) for the establishemnt and operation of a National Medical Centre in Korea. No. 6158 United Nations Treaty Series. s.l. : United Nations.

Wyller, I. (1956). *Hva forventer det moderne samfunn av sykepleien idag?" Konferanse, Norsk sykepleierforbunds landmøte 1956*. Oslo: Riksarkivet, The National Archives of Norway. RAPA – 1270. Norsk Sykepleierforbund.

Wyller, I. (1990). *Sykepleiens historie i Norge* (2nd edn). Oslo: Gyldendal Norsk Forlag A/S.

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Appendices

Appendix 1: Consent letter and information

Appendix 2: Interview guide

Appendix 3: Registration Norwegian Centre for Research Data

Appendix 1

Forespørsel om deltakelse i forskningsprosjektet:

Norske sykepleieres virke under Koreakrigen, 1951 – 1954, og ved Det skandinaviske undervisningssykehuset i Seoul, 1958 – 1968.

Jeg er operasjonssykepleier og master i helsefag fra Universitet i Tromsø. Jeg driver for tiden et forskningsprosjekt, som etter planen skal gjennomføres som en del av min doktorgrad.

- Forskningsprosjektet hovedformål er å undersøke, dokumentere og beskrive sykepleien, spesielt den perioperative[1] sykepleie, ved Det norske feltsykehuset i Korea 1951-1954-og Det skandinaviske undervisningssykehuset i Seoul 1958-1968.

Deltakelse

All deltakelse i dette forskningsprosjektet er frivillig. Du kan når som helst i løpet av prosjekttiden trekke deg fra forskningsprosjektet uten begrunnelse. Jeg vil i denne oppgaven benytte intervju. I et slikt intervju er det din historie som er det sentrale. Intervjuguide vil benyttes som en overordnet samling av tema relatert til studien. Jeg vil i hovedsak stille spørsmål om sykepleien og dagliglivet ved NORMASH og Det skandinaviske undervisningssykehuset. Det vil bli benyttet opptaker. Opptakene og det øvrige datamaterialet oppbevares konfidensielt. Det vil kun være jeg og min veileder som har tilgang til personopplysninger, og vi er underlagt taushetsplikt. I publikasjoner ønsker jeg i utgangspunktet å bruke navn på informantene. Hvis du gir samtykke til dette, vil du få lese gjennom avsnittene som omhandler deg for å godkjenne at disse offentliggjøres. Ønsker du derimot å være anonym i publikasjoner, krysser du av for dette alternativet i samtykkeerklæringen. Prosjektet vil være avsluttet 31.12.2014. Innen denne datoen vil lydopptakene være slettet og alt datamateriale anonymisert, med unntak av de opplysninger som eventuelt publiseres etter samtykke fra deg.

Veileder og ansvarlig for prosjektet

Universitetet i Tromsø er behandlingsansvarlig institusjon for prosjektet.

Daglig ansvarlig og veileder for denne studien er Professor Ingunn Elstad, Universitet i Tromsø, Det helsevitenskapelige fakultet, IHO. Epost Ingunn.Elstad@uit.no telefon 77 66 02 73.

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[1] Perioperativsykepleie omfatter forløpet fra mottak av pasient , operasjon og postoperativsykepleie og vil derfor også dekke spesialitetetene vi i dag kjenner som anestesi- og intensivsykepleie som på denne tiden ikke var egne spesialiteter.

Prosjektmedarbeider er Jan-Thore Lockertsen, Universitet i Tromsø, Det helsevitenskapelige fakultet, IHO. Epost Jan-Thore.Lockertsen@uit.no telefon 900 60 669

Prosjektet er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Behandling av data
Intervju og behandling av data vil bli utført av meg.

Hilsen

Jan-Thore Lockertsen

TILLATELSE

Jeg er gitt skriftlig og muntlig informasjon om studien:

Norske sykepleieres virke under Koreakrigen, 1951 – 1954, og ved Det skandinaviske undervisningssykehuset i Seoul, 1958 – 1968.

Jeg ønsker å delta i prosjektet og tillater at mitt navn offentliggjøres i publikasjoner:

Sted: ……. Dato: …….

Navn: …….

Jeg er villig til å delta, men jeg ønsker å være anonym i publikasjoner:

Sted: ……. Dato: …….

Navn : …….

Veileder og ansvarlig for prosjektet: Professor Ingunn Elstad, Universitet i Tromsø. Det helsevitenskapelige fakultet, IHO. 9037 TROMSØ. Epost Ingunn.Elstad@uit.no telefon 77 66 02 73.

Prosjektmedarbeider Jan-Thore Lockertsen, Universitet i Tromsø. Det helsevitenskapelige fakultet, IHO. 9037 TROMSØ. Epost Jan-Thore.Lockertsen@uit.no telefon 900 60 669

PERMISSION

I have been given written and oral information about this project:

Norwegian nurses work during The Korean War, 1951 – 1954, and at The National Medical Centre (NMC) in Seoul, 1958 -1968.

I wish to participate in this project and give's permission that my name can be published in publications:

Place:…… Date:……..

Name:……

I wish to participate, but I wish to remain anonymous in publications:

Place:…… Date:……

Name:……

Responsible: Professor Ingunn Elstad, University of Tromsø. The Faculty of Health science, IHO, 9037 Tromsø. Email: ingunn.elstad@uit.no, phone 77 66 02 73.

Research associate Jan-Thore Locekrtsen, University of Tromsø. The Faculty of Health science, IHO. Email: Jan-Thore.Lockertsen@uit.no, phone 900 60 669

Appendix 2

INTERVJUGUIDE

Spørsmål om utdanning og sykepleiefaglig bakgrunn

- Når og hvor utdannet du deg til sykepleier?
- Har du en spesialutdannelse i sykepleie?
    - Når og hvor tok du den?

Spørsmål om bakgrunn for ønsket om å reise til Korea med NORMASH

- Hvilken kontingent tilhørte du?
- Hadde du noen militærerfaring før du reiste til Korea?
- Hva var grunnen til at du ønsket å reise til Korea?

Spørsmål om forberedelsene til oppholdet i Korea ved NORMASH

- Hva lærte dere om virksomheten ved NORMASH før dere reiste dit?
- Lærte dere noe fra tidligere kontingenter?
- Fikk dere noen militær opplæring før dere ankom Korea?

Spørsmålet om livet ved NORMASH

- Er det en opplevelse som sitter igjen sterkere enn noen annen etter NORMASH?
- Daglig livet – hvilket oppgaver hadde du?
- Hva var din oppgave under operasjoner?
    - Blodbank
    - Annet
- Hvordan ble utstyr sterilisert og oppbevart?
- Hvordan ble hygienen ivaretatt?
- Lærte dere nye sykepleieteknikker under tjenesten ved NORMASH?
    - Ble dere kjent med nye medisiner?
- Hvem var pasientene?
- Hvordan var samarbeidet med:
    - Andre sykepleiergrupper
    - Kirurger
    - Yrkes militære
    - Andre nasjoner

- Forsyninger/logistikk
- Kunne dere reise bort på perm?

Spørsmål om tiden etter NORMASH

- Hvordan ble deres erfaringer benyttet av det Norske forsvaret?
- Har det Norske forsvaret ivaretatt deg etter NORMASH?
- Lærte du noen nye sykepleieteknikker som du tok i bruk i Norge i tiden etter NORMASH?
- Har du hatt kontakt med andre veteraner fra NORMASH i ettertid?

INTERVIEW GUIDE

Question about education and practice as a nurse

- When and where did you train as a nurse?
- Do you have further training as a specialist nurse (theatre nurse or something else)?
    - If, where and when did you do it?

Question about motive for wanting to go to Korea with NORMASH

- Which contingent did you belong to?
- Did you have any military experience before you went to Korea?
- Was there any particular reason for your wish to go to Korea?

Question about preparation for the stay in Korea at NORMASH

- What did you learn about the daily operation at NORMASH?
- Did you learn anything about previous contingents experiences?
- Did you get any military training before you went to Korea?

Question about the stay at NORMASH

- Is there any particular experience you remember from the service with NORMASH?
- The daily life at the hospital – which chores (nursing) did you have?
- Did you have any tasks during surgical operations?
    - Blood bank
    - Other things
- How were surgical instruments sterilized and stored?
- How was the hygiene maintained?
- Did you learn any new nursing procedures during the service at NORMASH?
    - Were you introduced to any new medicines during the service at NORMASH?
- Who was the patients?
- How was the colloboration with:
    - Nurses with other tasks
    - Surgeons
    - Servicemen
    - Personnel from other nations

- Logistic
- Could you go on leave?

Question about the time after NORMASH

- How did the Norwegian Armed Forces use your experiences?
- Has the Norwegian Armed Forces given you any support after NORMASH?
- Did you learn any nursing practices at NORMASH that you later have used in nursing at home in Norway?
- Have you had any contact with other veterans from NORMASH subsequently?

Appendix 3

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Ingunn Elstad
Institutt for helse- og omsorgsfag
Universitetet i Tromsø
MH-bygget
9037 TROMSØ

Vår dato: 06.01.2011 Vår ref: 25104 / 3 / IB Deres dato: Deres ref:

KVITTERING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 27.09.2010. All nødvendig informasjon om prosjektet forelå i sin helhet 03.01.2011. Meldingen gjelder prosjektet:

25104	*NORSKE SYKEPLEIERES VIRKE UNDER KOREAKRIGEN, 1951 – 1954, OG VED DET SKANDINAVISKE UNDERVISNINGSSYKEHUSET, 1958 – 1968.*
Behandlingsansvarlig	*Universitetet i Tromsø, ved institusjonens øverste leder*
Daglig ansvarlig	*Ingunn Elstad*
Student	*Jan-Thore Lockertsen*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, eventuelle kommentarer samt personopplysningsloven/-helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/forsk_stud/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://www.nsd.uib.no/personvern/prosjektoversikt.jsp.

Personvernombudet vil ved prosjektets avslutning, 30.06.2013, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Bjørn Henrichsen Inga Brautaset

Kontaktperson: Inga Brautaset tlf: 55 58 26 35
Vedlegg: Prosjektvurdering
Kopi: Jan-Thore Lockertsen, Skarveien 41, 9020 TROMSDALEN

Personvernombudet for forskning

Prosjektvurdering - Kommentar

Prosjektnr: 25104

Prosjektet er meldt inn som et studentprosjekt, med Jan-Thore Lockertsen som student og Ingunn Elstad som daglig ansvarlig. Det opplyses pr telefon at Lockertsen har søkt opptak som Phd-student. Dersom Lockertsen blir tatt opp og skal overta prosjektansvaret, ber personvernombudet om skriftlig bekreftelse på dette, både fra Elstad og Lockertsen.

Prosjektet består av to deler:

DEL 1
Data innhentes ved personlig intervju og registreres i form av digitale lydopptak. Det skal ikke registreres sensitive opplysninger.

Utvalget består av sykepleiere som tjenestegjorde under koreakrigen 1951-1954 og ved det skandinaviske undervisningssykehuset i Seoul 1958-1968. I tillegg kan det være aktuelt å inkludere annet medisinsk og militært personell, samt medlemmer av veteranforeningen.
Førstegangskontakten opprettes ved at prosjektleder ringer potensielle informanter på bakgrunn av at deres navn finnes tilgjengelig i offentlige arkiver. Eventuelt vil forespørsel også rettes gjennom aktuelle foreninger.

Utvalget får skriftlig og muntlig informasjon om prosjektet og samtykker skriftlig til deltagelse. Revidert informasjonsskriv som forelå 03.01.2011 finnes tilfredsstillende utformet i henhold til kravene i personopplysningsloven.

DEL 2
Data innhentes ved gjennomgang av arkiver. Noen av arkivene er offentlig tilgjengelige, andre er adgangsregulerte. Arkivmaterialet kan inneholde personopplysninger, bl.a. navn på oversykepleiere og medisinsk ansvarlige under koreakrigen og ved det skandinaviske undervisningssykehuset i Seoul.

Etter personvernombudets vurdering kan disse personopplysningene behandles i henhold til personopplysningsloven § 8 d), og prosjektleder kan unntas fra informasjonsplikten etter personopplysningsloven 20 b). Til grunn for denne vurderingen ligger at opplysningene som innhentes vil være nødvendige for formålet, at materialet ikke er av sensitiv art, samt at det oppbevares konfidensielt og kun for en kortere periode. Samfunnsnytten ved behandlingen av personopplysningene anses dermed vesentlig større enn den enkeltes personvernulempe. Ombudet finner det uforholdsmessig vanskelig å informere utvalget, da prosjektleder ikke har tilgang på kontaktopplysninger, og flere i utvalget trolig vil være avdøde.

Ombudet forutsetter at nødvendige tillatelser foreligger før prosjektleder får tilgang til adgangsregulerte arkiver, eksempelvis tillatelse fra registereier og dispensasjon fra taushetsplikten (hvis nødvendig). Vi ber da om at kopi av tillatelsene sendes til personvernombudet.

Ombudet forutsetter videre at det ikke innhentes arkivmateriale om intervjuinformantene uten at de informeres og samykker til dette.

INFORMASJONSSIKKERHET
Ombudet forstår det slik at innsamlede opplysninger registreres kryptert på privat bærbar pc. Det legges til grunn at bruk av privat pc er i tråd med Universitetet i Tromsø sine rutiner for datasikkerhet. Vi anbefaler at datamaterialet oppbevares adskilt fra direkte personopplysninger, ved at det opprettes en koblingsnøkkel.

PUBLISERING AV PERSONOPPLYSNINGER
Prosjektleder opplyser at det er aktuelt å publisere avhandlingen med personopplysninger.
- Når det gjelder intervjumaterialet, forutsetter personvernombudet at det foreligger samtykker fra den enkelte til publisering av (direkte og/eller indirekte) personopplysninger. Den enkelte informant vil få anledning til å lese gjennom avsnittene med egne opplysninger og godkjenne disse før publisering.
- Når det gjelder arkivmaterialet, skal det kun publiseres personopplysninger som tidligere har vært offentliggjort. Fra adgangsregulerte arkiver skal det kun publiseres anonyme opplysninger (dvs. slik at enkeltpersoner på ingen måte kan gjenkjennes).

PROSJEKTSLUTT
Prosjektet avsluttes 30.06.2013. Datamaterialet skal da anonymiseres, med unntak av de personopplysninger som publiseres i avhandlingen (jf. avsnittet over). For at datamaterialet skal være anonymt, må lydopptak og direkte personopplysninger (navn/kodenøkkel) slettes, og indirekte personidentifiserende opplysninger slettes eller omkodes/grovkategoriseres, slik at ingen enkeltpersoner kan gjenkjennes i materialet.

Norsk samfunnsvitenskapelig datatjeneste AS
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Jan-Thore Lockertsen
Institutt for helse- og omsorgsfag
Universitetet i Tromsø
MH-bygget
9037 TROMSØ

Vår dato: 22.02.2013 Vår ref: 25104 IB/LR Deres dato: Deres ref:

BEKREFTELSE PÅ ENDRING

Vi viser til endringsmelding mottatt 01.01.2013 med påfølgende korrespondanse vedrørende prosjektet:

25104 *Norske sykepleieres virke under Koreakrigen, 1951 – 1954, og ved det skandinaviske undervisningssykehuset, 1958 – 1968.*

Prosjektet ble opprinnelig meldt inn som et forprosjekt til doktorgrad.

I endringsmeldingen opplyses det at det nå er opprettet en stipendiatstilling, og at prosjektet er blitt et doktorgradsprosjekt med tidsramme 01.07.2012-30.06.2016.

Jan-Thore Lockertsen er stipendiat og overtar som daglig ansvarlig for prosjektet etter Ingunn Elstad, jf. bekreftelser pr epost 12.02.2013.

Det opplyses at informanter som ble inkludert i forprosjektet er informert muntlig om ny prosjektslutt. Personvernombudet legger til grunn at eventuelle nye informanter som inkluderes i intervjustudien får informasjon i tråd med tilrådningen (jf. brev 06.01.2011), oppdatert med ny prosjektslutt.

Når det gjelder arkivstudien finner personvernombudet at opplysningene kan behandles videre for å gjennomføre doktorgradsarbeidet. Dette med hjemmel i personopplysningsloven § 8 d), jf. vår tidligere vurdering. Det forutsettes at nødvendige tillatelser innhentes for tilgang til adgangsregulerte arkiver, og at eventuelle tillatelser som allerede er innhentet (f.eks. fra registereier eller dispensasjonsmyndigheter) forlenges.

Det legges til grunn at prosjektopplegget for øvrig er uendret.

Ved ny prosjektslutt 30.06.2016 vil personvernombudet rette en henvendelse vedrørende status for behandling av personopplysninger.

Ta gjerne kontakt dersom noe er uklart.

Vennlig hilsen

Vigdis Namtvedt Kvalheim

Inga Brautaset

Kontaktperson: Inga Brautaset tlf: 55 58 26 35