



Satakunnan ammattikorkeakoulu  
Satakunta University of Applied Sciences

JANNETTE CALIMAG

# **Job Description of a Cruise Ship Nurse**

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## ABSTRACT

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The project highlighted the significance of understanding the cruise ship nurse responsibilities and the necessity of targeted qualifications, work-experience, and training for their role. Their role is significant to provide quality healthcare services to passengers and crew, navigating the complex medical scenarios encountered at sea, and addressing the specific health care needs of a diverse population within a constrained environment.

The main purpose of the project was to develop a PDF document outlining the job description of a cruise ship nurse, to gain an understanding into the responsibilities of a cruise ship nurses, as well as the skills and qualifications required for their specialized role. The objectives were to broaden the subscriber's knowledge of the cruise ship nurse's job description, to deepen the author's comprehension in the field of cruise ship nursing and to offer valuable insights and information to individuals interested in this field of nursing. The agility method was utilized in completing each task and activities, and writing the project. The theoretical background described the key concepts and other related information.

Keywords: job description, job analysis, cruise ship, cruise ship nurse, electronic file.

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## LIST OF TERMS

ACEP American College of Emergency Physicians

CLIA Cruise Lines International Association

EU European Union

ILO International Labour Organization

MLC Maritime Labour Convention

SOLAS Safety of Life at Sea

STCW Standards of Training, Certification and Watchkeeping

## 1 INTRODUCTION

Finland's maritime cluster is a significant industrial sector, generating annual revenues of 13 billion euros and supporting 50,000 jobs across 3,000 companies united by their shared expertise (Prime Minister's Office, 2019, p. 11). Within the European Union (EU), the cruise industry is a major component of the maritime cluster, with numerous European cruise lines and shipyards building cruise ships that sail under EU flags. European seas and ports are among the top destinations in the global cruise market. In 2022, EU ports accounted for 30 percent of worldwide cruise port calls. Following the pandemic, the sector has been on a path to recovery. (European Maritime Safety Agency, 2022, p. 19, n.d., sec. 2.) Before the pandemic, the global tourism market saw its quickest expansion within the cruise ship industry, with about 29.7 million cruise passengers worldwide and 7.7 million in Europe in 2019 (Cruise Lines International Association, 2022, 2023; Papathanassis, 2020, p. 130).

In 2024, the world's largest cruise ship, Icon of the Seas, was constructed by Meyer Turku in Finland, boasting a capacity for 5,610 passengers and 2,350 crew members (Meyer Turku Oy, 2024). The trend towards larger ocean-going cruise ships is on the rise, offering more choices in accommodations, entertainment, activities, and medical services. This expansion of the cruise industry is marked by an increase in the construction of new ships, a surge in passenger numbers, evolving passenger preferences, and the need for appropriately skilled employees. One of the main challenges lies in assembling an onboard workforce that excels in competence, skills, commitment, and customer service. (Dowling & Weeden, 2017, pp. 7–8; Gibson & Parkman, 2019, p. 278.)

Cruise ships, often far from land-based medical facilities, are equipped to handle health emergencies and injuries among passengers and crew. They follow the Cruise Ship Healthcare Guidelines developed by the American College of

Emergency Physicians (ACEP) in collaboration with the Cruise Lines International Association (CLIA), the world's largest cruise industry trade association, representing approximately 95% of cruise companies globally. These guidelines established the highest standards of safety and care and are compulsory for all oceangoing ships that are members of CLIA, acting as a minimum global standard. (ACEP, 2019; Boniface et al., 2020, p. 42.) A diverse team of nurses and healthcare professionals, is dedicated to maintaining the health of everyone onboard. These cruise ship nurses manage patient care in the onboard medical facility, respond to medical emergencies, and oversee the occupational health of crew members. Their expertise and readiness are crucial in ensuring comprehensive healthcare in a cruise ship. (Fitzpatrick et al., 2017, p. 81. Musa & Lucero-Prisno III, 2022.)

The purpose of the project was to create a product, a PDF document detailing the job description of a cruise ship nurse. Once completed, this document was delivered to Maritime Logistics Research Center for their utilization. The primary objective of the project was to broaden the subscriber's knowledge of the cruise ship nurse's job description. Additionally, the project aimed to deepen the author's comprehension in the field of cruise ship nursing. The final objective was to offer valuable insights and information to individuals interested in this specialized area, particularly those considering a career outside the traditional hospital setting.

## 2 THEORETICAL BACKGROUND

Concepts are defined through the perspectives of researchers and their interest towards abstract ideas. When concepts are explained through their theoretical significance, this is referred to as conceptual definition. Researchers even provide conceptual definitions for seemingly simple terms. (Polit & Beck, 2018, p. 90.) This section will delve into key concepts and the underlying

theories. The topics discussed will include job description, job analysis, cruise ship, cruise ship nurse, and electronic file.

## 2.1 Job description

A job description provides a detailed account of the duties assigned to a job position, the methods by which these duties should be executed, and the reasoning behind the specific tasks involved (Catano et al., 2019, p. 116). Dessler defines the term as list of a job's duties, tasks, work environment, reporting hierarchy, and managerial roles (2020, p. 100). This document often serves as the first impression an employee has of a company and its operations, playing a crucial role in recruitment by helping to identify and hire the most suitable candidate for a position (Pató, 2017, p. 1008). Job description is the main product of job analysis, the detailed process of gathering data about a specific job (Catano et al., 2019, p. 116). The process also leads to the creation of a job specification, which outlines the educational background, skills, and personality traits needed for the job. The information gathered helps in writing job description, detailing the job's responsibilities, and job specification, describing the ideal candidate profile. These elements are essential for various HR activities, including interviewing, training, and evaluating staff, as they clarify job requirements and desired candidate attributes. (Dessler, 2020, p. 100.)

Leon Rohr (2016, pp. 8–9) emphasized that while many organizations primarily employ job descriptions for recruitment, shelving them until the next hiring period, a strategic use of job descriptions can bring in considerable benefits for organizations. First, job description can be utilized to assess how well a candidate's knowledge matches the job requirements by basing interview questions on the job description. This approach reduces bias by focusing on job-related requirements and skills necessary for the job, to ensure fairness and observance to equal employment opportunity guidelines. Additionally, job descriptions improve the effectiveness of reference checks. Typically, previous employers are hesitant to provide detailed feedback due to fear of legal action, and shares merely job titles and employment dates. However, referencing job

description during these checks, there's less chance of legal issues, and directs the conversation towards candidate's suitability for the role. Furthermore, job description outlines exactly an employee's responsibilities and the necessary skills and behaviours. They can be used for performance management by turning these requirements into specific tasks or performance indicators. Comparing an employee's actual work against these expectations helps for fair measurement of their performance, providing clarity to managers and employees.

Identifying training needs is another important benefit. Performance reviews or the hiring process might reveal skill gaps, which can then be addressed through targeted training program based on the job's requirements. This tailored approach makes sure that training is relevant to each employee's needs. This helps with the development of new employees and expanding the pool of potential candidates by offering opportunities to bridge skills gaps. Job descriptions are also useful for planning who will replace employees who leave, retire, or are dismissed. By keeping records of employees' skills and abilities, companies can create a talent pool of ready candidates for future openings. This makes it easier to determine whether to promote someone internally or to look for new talent outside. Moreover, incorporating job descriptions into hiring, selection, and training processes enhances work safety. By ensuring employees are only assigned tasks they are qualified for, the risk of accidents is reduced. employees aren't assigned tasks they're not qualified for, reducing the risk of accidents. This lowers the company's liability by preventing untrained employees from doing hazardous work. (Leon Rohr, 2016, p. 10.)

In labor negotiations, job descriptions facilitate more efficient discussions by focusing on the certain needs of individual employees rather than the entire workforce. While labor agreements generally aim to improve conditions and benefits broadly, use of job description allow for targeted adjustments such as additional training or salary adjustments, saving organization time and money while increasing employee satisfaction. Finally, job description helps align compensation with the Knowledge, Skills, Abilities and Other characteristics (KSA) required for each role. Companies can pay compensation that meet

both the employee's needs and the organization's goals. This alignment ensures that particularly valuable skills are adequately compensated, and decisions regarding raises, promotions, demotions, terminations, and transfers are based on how well an employee's skills match their job description. (Leon Rohr, 2016, p. 11.)

Baker reinforces the same critical role of job descriptions mentioned by Rohr about human resource management and its various functions in human resources (2016, p. 26). Additionally, studies reveal that unclear or mismatched job descriptions, combined with limited opportunities for advancement, greatly reduce employee satisfaction. This highlights the necessity for managers and HR professionals to establish clear job roles and pathways for career development to improve workplace satisfaction. (Ramhit, 2019, p. 7.) In another study, it was also noted that employee dissatisfaction arising from conflicting job roles and responsibilities can potentially lead to reduced self-esteem, confidence, and competence (Belias et al., 2015, p. 319).

### 2.1.1 Writing job description

According to Dessler, there is no standardized format for writing job descriptions (2020, p. 112). The process of creating job descriptions can involve various professionals including managers, current job holders, subject matter experts, and human resources staff (Mondy & Martocchio, 2015, p. 91). The contents of a job description can vary based on the references or materials consulted. At the top of the document is the job identification section, which provides essential details such as the job title, the date the job description was created or last updated, the job's location (including the specific facility or department), the title of the supervising manager, and the salary or pay range. Following this, the job summary outlines the main duties and key tasks of the job, focusing on how these should be carried out efficiently. This section includes information about the employee's relationships within or outside the organization, detailing their reporting structure, who oversees the work, and coworkers. (Dessler, 2020, pp. 112–114.)

The core of a job description lies in the responsibilities and duties section, which details what the employee is expected to do, usually in a few sentences. This part may also outline the employee's authority, such as approving salary increases, granting time off, or hiring staff. To define what job duties are and should be, the answer comes from job analysis, which should reveal the current activities and responsibilities of employees. Additionally, it comes also from various resources of standardized job descriptions information. For instance, the U.S. government's Standard Occupational Classification system categorizes workers, jobs, and their tasks. Other valuable sources of job description information include recruitment websites, career planning resources, and O\*NET online, all of which help specify a job's responsibilities. (Dessler, 2020, p. 115.)

Standards of performance and working conditions follows next. Performance standards outline the organization's expectations for how employees should fulfil their main duties and responsibilities. The working conditions section describes the typical environment in which the employee works, including things like noise levels or potential hazards. Finally, the job specifications use the job description to match a person's traits and experience with their effectiveness in the job. This is often found in the "required knowledge and experience" part of the job description. The writing of job specifications can differ based on whether the employee is trained or inexperienced. For trained employees, the focus is on the quality of their training or education, work experience, and past job performance. For untrained employees who might be trained later, the emphasis is on their personality, interests, physical traits, or skills that indicate their ability to be trained or their potential to perform tasks well. (Dessler, 2020, pp. 117, 120.)

## 2.2 Job analysis

Job analysis is the methodical process of collecting, documenting, and examining information regarding a job's duties and requirements (Catano et al.,

2019, p. 114). It is described as a method to identify the responsibilities of a company position and the traits of candidates best suited for the role. The outcome of this process includes the creation of job descriptions and specifications. The collected job analysis information is crucial for understanding a role's demands and setting the foundation for numerous human resources activities. This information includes details about work activities, explaining not only the tasks involved but also the reasons behind them, their timing, and the way they should be performed. It examines human behaviours, focusing on the necessary interactions and physical activities. Information on the tools, equipment, and materials required for the job is collected, highlighting the essential knowledge and services needed. Performance standards are established, setting clear expectations for the quantity and quality of work to be achieved. The analysis delves into the job context, providing a deeper look into work schedules, working conditions, incentives offered, and the extent of collaboration required. Finally, it identifies the human requirements, specifying the skills, knowledge, educational background, and personal traits that are sought after, ensuring a comprehensive understanding of each role within the organization. (Dessler, 2020, pp. 100–101.)

Job analysis plays a crucial role in human resource decision-making, offering benefits across different areas. It helps in recruitment and selection by providing details about the job duties and the qualities needed to perform them, which helps in hiring the right people. For equal employment opportunity compliance, understanding a job's duties is essential to validate selection tests and identify the job's critical functions. In performance appraisals, job analysis is used to compare an employee's actual performance against the job's standards. Compensation, including salaries and bonuses, is based on the job's demands, skills, hazards, and responsibilities, are all determined by job analysis. Lastly, job analysis identifies the specific duties and skills required for a job, indicating the necessary training for employees. (Dessler, 2020, p. 101.)

### 2.2.1 Methods of job analysis

When doing a job analysis, it's important to first figure out why you need the information. Depending on what you plan to use it for, you'll pick the most suitable method. Some techniques work well for writing job descriptions, while others are better for setting compensation. It's all about choosing the method that fits your goal the best. Ideally use of combination of methods, create a comprehensive and ideal job description of the target job. However, those with limited time and budget, would use a single method. While different methods could produce to some extent different information, it also minimizes the potential gaps in result. (Catano et al., 2019, pp. 124, 150; Dessler, 2020, p. 101.)

Existing documentation is one method to conduct a job analysis. This involves gathering information from training manuals, organizational charts, job descriptions and specifications, legal documents, regulations, and past data from similar positions. The advantages of this method include convenience, the availability of materials, versatility, and the potential to uncover needed information from diverse sources. However, challenges may arise if the job in question is not included, if the information is outdated or irrelevant, or if the job has evolved since the data was last updated. (Catano et al., 2019, pp. 121, 148.) This method was chosen for this project due to its ease of use and the availability of relevant information to cruise ship nursing.

Structured interviews are another common method. These interviews, which can be either structured with a set list of questions or unstructured without a fixed format, involve talking to both employees and supervisors individually or in groups. The main advantage of structured interviews is that they provide insights directly from those who know the job best, and can uncover unexpected information. However, this method requires skilled interviewers and well-crafted questions, the qualitative data can be difficult to analyse. It is also time-consuming, and there's a risk that interviewees might not provide accurate information. (Catano et al., 2019, pp. 26, 148; Dessler, 2020, p. 105.)

Direct observation, also known as job shadowing, involves watching employees perform their tasks. This method provides firsthand information and is especially useful for hands-on or blue-collar jobs. Observers can cross-check this information with data from other sources. However, direct observation can be time-consuming and may only offer a limited view of the job's full range of tasks. It's less effective for jobs involving cognitive tasks and may affect how employees perform, potentially introducing bias. (Catano et al., 2019, pp. 129, 149.)

Structured questionnaires involve asking employees or others to fill out forms with questions about their job, covering topics like work tasks, tools, equipment, and working conditions. General questionnaires, such as the Position Analysis Questionnaire, or custom ones can be made for specific jobs and organizations. This method is cost-effective and can provide a lot of information from those who know the job well. However, there might be low participation, responses may not always be honest, and fixed questions might miss capturing key insights from workers. (Catano et al., 2019, pp. 135, 149.)

Functional Job Analysis (FJA) is conducted by a trained and certified job analyst. A group of six analysts collects input on job output, the Knowledge, Skills, Abilities, and Other characteristics (KSA), needed to perform the job, and the tasks involved. The group produces 20-30 task statements, which can increase to 100 for complex roles. The statements are edited and sent to focus group for feedback. The method offers benefits, such as creating a standardized library of task descriptions and ensuring reliable and valid results when conducted by a trained analyst. However, it can be costly and time-consuming to gather detailed task statements. (Catano et al., 2019, p. 149.)

The Critical Incident Technique involves a panel of experienced job experts collecting significant work incidents that show a worker's performance. These incidents are rated as effective or not, based on the action's outcomes and the worker's control over them. Another panel of experts reviews these incidents, organizing them into key job competencies. This method is cost-effective and

offers valuable insights into behaviour but might not capture every critical aspect of the job, relies on people's memory. (Catano et al., 2019, pp. 138, 149.)

The Position Analysis Questionnaire is a tool to understand the important behaviours needed for different jobs, suggesting that all jobs require certain basic skills. It consists of 195 job elements divided into subdivisions like information input, relationships, work output and job context. It is useful for making job descriptions, figuring out job roles, and deciding on pay because it provides reliable data and uses a large job database for comparison. However, the questionnaire is long and detailed, requiring a high reading level and can take more time and money to complete. It is typically better for manual jobs and focuses more on general behaviours than the specific tasks. (Catano et al., 2019, p. 149.)

Lastly, the Fleishman Job Analysis Survey determines which skills are essential for a job and how important each skill is. Fleishman and his team identified 52 specific skills sorted into four main groups: thinking skills, movement skills, physical skills, and senses/perception skills. To assess a job, at least 10 people familiar with it rate these abilities on a scale from 1 to 7, with the average score indicating the level of skill required. This method is simple, cost-effective, does not need a specialist to run, and provides detailed data for job profiles. However, it focuses more on skills than on specific job tasks and requires input from at least 10 experts. (Catano et al., 2019, p. 148.)

### 2.3 Cruise ship

Cruise, embodying the essence of tourism and hospitality, offers a leisurely experience where travellers embark on a journey aboard a cruise ship to explore various destinations (Hung et al., 2019, p. 207). The term "cruise ship" describes a passenger ship designed to offer guests a comprehensive tourism experience, ensuring each passenger enjoys their own cabin. The ship comes equipped with a variety of onboard entertainment facilities. (Eurostat, 2019, p. 91.) These ships are categorized by their capacity, measured in gross tonnage

(GT), rather than weight. There are four main size categories: large resort (2,501–6,500 passengers), mid-size (751–2,500 passengers), small (251–750 passengers), and boutique (50–250 passengers). (Ward, 2018, p. 123.) The lifespan of ships depends on their type and use and usually last between 30 to 50 years (European Maritime Safety Agency, n.d., sec. 2).

Cruises usually comes with set package that can include travel to the port of embarkation (port where journey started), an itinerary for a specific duration, services like meals and entertainment, standard accommodations, and additional services you can choose and pay for (Eurostat, 2019, p. 22; Gibson & Parkman, 2019, p. 37). Travellers pursue enjoyable experiences by exploring different ports and destinations recognized for their rich history, diverse cultures, and natural beauty (Lee et al., 2022, p. 360). Numerous factors influence tourists' motivation to join cruise vacations. Among these are self-esteem, social recognition, the pursuit of relaxation, opportunities for learning and discovery, thrill-seeking, and the desire for bonding and socialization. (Hung et al., 2019, p. 81.)

The length of cruises is typically divided into three types: short cruises (3-4 days) for quick breaks or city tours; medium cruises (7 or 14 days) for vacations; and long cruises (over two weeks to two months) for extensive trips like world or cross-ocean cruises (Dowling & Weeden, 2017, p. 526). According to CLIA, cruises in 2023 spanned 7.3 days on average (2023). In Finland, cruises may involve an overnight stay (overnight cruise) or just a day trip. Passengers might visit another country without staying overnight. Some cruises are one-way overnight journeys if passengers use different transportation, like flying. (Statistics Finland, n.d.) Destinations of cruises has emphasis on warm climates and smooth seas. There is, however, an interest in colder regions, such as Alaska, Iceland, Scandinavia, the Baltic ports, Antarctica, and South America's southern part. This highlights the increasing variety of destinations available to cruise travellers. (Gibson & Parkman, 2019, p. 88.) In 2023, the Caribbean-Bahamas-Bermuda led as the top global cruise destination, followed by the Central & Western Mediterranean, and Asia & China (CLIA, 2023, n.d.). For European cruisers, the Central and Western Mediterranean was the

primary choice, with Northern Europe and Eastern Mediterranean trailing in the rankings (CLIA, 2022). Typically, cruise ships dock at ports in the morning and depart by evening. They may stay overnight if there's a special event or if the port area is highly popular for tourists, with excursions extending beyond a single day. In such situations, the ship will leave the next evening. (Pillo et al., 2023, p. 688.)

Cruise tourism is based on vacation journeys on cruise ships, frequently described as floating resorts dedicated to leisure and relaxation (Petrick & Durko, 2016, p. 206). The cruise industry connects various fields like manufacturing, tourism, finance, and shipping through its routes and ports, building a large network that impacts economies worldwide (Vega-Muñoz et al., 2020, p. 3). Cruise travel, propelled by mechanical ships, has its origins in the 1800s, initially using ships from regular service or older vessels for brief, local journeys during the off-season or through charter. In the next half of the twentieth century, cruise as a leisure became much more popular, growing quickly for several reasons. A major turning point was the launch of the Boeing 707 in 1958, which changed transatlantic travel. This marked the decline of traditional ocean liners and headed to the rise of the modern cruise industry. The birth of the modern cruise industry said to have begun in 1966, with the launched of Norwegian Caribbean Line's Sunward. This led to the expansion of their fleet with ships designed solely for cruise purposes. In 1970, Royal Caribbean Cruise Line entered the scene with the Song of Norway, the first cruise ship built in a Finnish shipyard, marking a significant milestone in the industry's development. (Cardow, 2022, p. 406; Coggins Jr, 2014, pp. 138, 140.)

### 2.3.1 Cruise in Finland

In Finland, the term “cruise” refers to a boat or ferry journey that goes beyond Finland's territorial waters. These cruises usually include an overnight stay on the vessel and are known as overnight cruises. However, if the journey does not involve staying overnight onboard, it is called a day cruise. Depending on the cruise, passengers might have the opportunity to visit another country on

the same day, without an overnight stay there. Additionally, a cruise can also be a one-way overnight journey if passengers use a different mode of transportation, such as flying, for their departure or return, and do not spend any nights in the destination country. Cruises are categorized by their purpose: leisure cruises are for relaxation and enjoyment, while business/professional cruises cater to events such as onboard seminars. (Statistics Finland, n.d.)

Cruise ships and ferries go to and from Finland all year. Trips can be one-way, round trips, and day cruises to places like Sweden, Estonia, Germany, and the Åland Islands. The most visited places for cruises on the Baltic Sea are Helsinki, Turku, Stockholm, and Tallinn. The companies that offer these cruises include Tallink-Silja, Viking Line, Viking Glory, Eckerö Line, Finnlines, and Wasaline. Tallink-Silja and Viking Line offer daily trips between Helsinki or Turku and Stockholm, Sweden. Eckerö Line, Tallink-Silja, and Viking Line also have trips from Helsinki to Tallinn, Estonia, a popular destination. Travel to Tallinn is only two hours by shuttle boat or longer overnight cruise. Viking Line's newest ship, Viking Glory, started traveling between Turku and Stockholm in 2022. Finnlines has daily ferries from Travemünde, Germany, to Helsinki, taking about 30 hours. The ships have entertainment, food, and shops. Wasaline offers themed cruises, like tango and ice hockey, daily between Vaasa, Finland, and Umeå, Sweden. (Tallink Silja Line, n.d.; Viking Line Abp, n.d.; Visit Finland, n.d.)

In Finland, the international cruise season, spans from mid-April to late September. In 2023, ships boasted an occupancy rate surpassing 80%, significantly higher than 2022. During this period, 163,000 passengers visited Helsinki and its surrounding areas. The majority of these travellers hailed from Germany (38%), followed by the USA (19%), the UK (17%), and Italy (4%). Additionally, liner traffic, which includes regular ship services such as RoPax ferries operating between Tallinn and Helsinki, continued to play a vital role in the region's maritime activity. Nearly 8.9 million passengers utilized liner traffic in 2023, marking a 12.2% increase from 2022. The most active used direction was between Tallinn and Helsinki totalling 7.2 million passengers. The

Stockholm route saw 1.5 million passengers, while the route between Helsinki and Travemünde was used by 166,000 passengers. (Port of Helsinki, 2023.)

Numerous cruise ships and passenger ferries in collaboration with the Finnish maritime network had been built in Finnish shipyards (Finnish Marine Industries, 2020). Finland built its first real cruise ship vessel, *Song of Norway* in 1970 (Helsinki Shipyard, 2019). In 2010, the biggest and most expensive cruise ship at the time, *Allure of the Seas* and *Oasis of the Seas*, was built and was also designed and constructed by Finnish experts. More recently, the world's largest cruise ship, *Icon of the Seas*, was built in Finland and delivered to Royal Caribbean in Miami in January 2024. (Finnish Marine Industries, 2020; Meyer Turku Oy, 2024; Royal Caribbean International, 2024.) The lifespan of ships depends on their type and use and usually last between 30 to 50 years. There are 150 large shipyards located in the EU. They provide about 120, 000 jobs. (European Maritime Safety Agency, n.d., sec. 2.) The largest shipyard in Finland are Meyer Turku Oy, Rauma Marine Constructions and Helsinki Shipyard (Meyer Turku Ltd., 2020).

### 2.3.2 Passengers and crew

A standard cruise ship can host 2,000 passengers and 800 crew members, while the largest vessels can hold over 5,000 passengers and 2,000 crew (Marshall et al., 2016, p. 2). The average cruise passenger is 46.3 years old, indicating a shift towards a younger demographic and moving away from being solely an activity for seniors and retirees. Historically, cruising was predominantly enjoyed by older individuals, especially retirees. However, the today's retired populations, who remain the majority of cruise market, tends to be healthier, more adventurous, and have more free time compared to earlier generations. (CLIA, 2023; Dowling & Weeden, 2017, pp. 12, 14.)

In 2021, the global number of cruise ship passengers dropped to below five million because of the COVID-19 pandemic. It has since recovered in 2023, surpassing 31.7 million compared to 29.7 million in 2019. Most cruise travellers

originated from North America, followed by Western Europe and Asia, respectively. In Europe, the cruise industry welcomed 5.7 million passengers, with Germany leading as the top source market, followed by the United Kingdom & Ireland, and Italy ranking as the third major contributor. (CLIA, 2022, 2023.) Carnival Corporation has the largest market stake in global cruise, trailed by Royal Caribbean Cruises and Norwegian Cruise Line. While Royal Caribbean operates some of the world's largest cruise ships, Carnival Corporation remains the top cruise company in terms of revenue. (Statista, 2023.) On a large cruise ship, crew members are typically employed for four to ten months at a time, working between 70 and 100 hours each week (Vega-Muñoz et al., 2020, p. 2). They often have a diverse crew—people of different nationalities, ages, backgrounds, and personal goals and needs (Gibson & Parkman, 2019, p. 160). Cruise companies must safely run a big "floating hotel" while fulfilling customer needs, maintaining crew-to-passenger ratios that vary from 1:1 for luxury cruises to 1:3 for standard ones (Dowling & Weeden, 2017, p. 161).

All individuals employed on a cruise ship, including machine operators, entertainers, and hotel staff, are classified as "seafarers," similar to the crew on a merchant vessel. The Maritime Labour Convention (MLC) of 2006, as amended, defines a "seafarer" as "any individual who is employed, engaged or works in any role on a ship that falls under the scope of this Convention." The MLC, frequently called the "Seafarers' Bill of Rights," is an international labour convention established by the International Labour Organization (ILO). It became international law on August 20, 2013. The MLC is unique in its dual goals of ensuring decent work conditions for seafarers and maintaining fair competition among quality shipowners. Under the MLC, every seafarer is entitled to a secure and safe work environment that adheres to safety regulations, fair employment conditions, and respectable working and living standards on board, and access to healthcare services, medical care, social benefits, and other types of social safety. There are over 1.8 million seafarers worldwide as of 2021. Finland contributes 4,482 seafarers to this total, which includes Finnish and foreign individuals who have served on Finnish ships, as well as Finnish seafarers on foreign vessels, provided these were reported. (Finnish

Transport and Communications Agency Traficom, 2022; International Chamber of Shipping, 2021.)

Before starting work, all cruise ship crew members must complete basic safety training as mandated by international regulations, since on-the-job training alone is insufficient. These safety standards are outlined in the International Safety of Life at Sea (SOLAS) Convention was established in 1914 and subsequently amended, following the Titanic disaster in 1912. Additionally, a compulsory safety drill for all passengers must occur before departure from the embarkation port, as required by the SOLAS Convention. Passengers who fail to participate may be removed from the ship before it sails. The Convention is broadly recognized as crucial international treaty for the safety of merchant ships. It also includes ferries, cruise ships, yachts, and ocean liners. Its primary aim is to set minimum safety standards for the construction, equipment, and operation of ships to ensure their safety. (SOLAS; Ward, 2018, p. 692.)

### 2.3.3 Medical care onboard

The quality and scope of medical facilities on cruise ships depend on several factors, such as the size of the ship, its route, the duration of the cruise, and the demographics of the passengers. Typically, onboard medical centers deliver care that is on equivalence with land-based ambulatory care centers, and some are even equipped to offer hospitalization or renal dialysis services. (Tardivel et al., 2023.) While there is no official regulatory body overseeing medical practices on cruise ships, ACEP developed and released "Health Care Guidelines for Cruise Ship Medical Facilities" to provide standardized guidelines for these facilities. (Tardivel et al., 2023.) They support the provision of proper emergency service and healthcare support for passengers and crew on international ships. They recommend that cruise ship industry and medical departments include medical staff skilled in delivering high-quality maritime healthcare to passengers and crew, managing initial stabilization, diagnostics, and treatment for critical patients, providing comfort and care to onboard

patients, and assisting, in partnership with the cruise company, in the timely evacuation of patients when necessary. (ACEP, 2019.)

The quality of medical care in medical facilities on cruise ships with over 100 passengers is enhanced by adhering to several important guidelines. These guidelines include offering diagnostic and treatment areas with complete access around at least one bed. Medical facilities must have with sink facilities with adjustable temperature controls, along with antibacterial hand soap, paper towels, and bins, which are placed in or next to all clinical exam areas; rooms lacking sinks must be supplied with hand sanitizers. Additionally, there must be plenty of storage for medical essentials, instruments, and medications, along with dedicated spaces for examinations, treatments, and patient care, scaled to the ship's capacity. Each facility must include a minimum of one room for examinations and stabilization, plus an intensive care unit room and ensure there is one inpatient bed available for every 1,000 people on board. There must be at least one room for isolation or the capacity to create one when needed. The design should allow easy access for both wheelchairs and stretchers. Furthermore, all new ships constructed after January 1, 1997, are equipped with at least one toilet accessible to wheelchair users. (ACEP, 2023.)

The large number of people on board makes it clear why cruise ships need a medical team. The principal medical officer leads a team, which typically includes several medical officers or doctors as needed. However, this depends on the ship's size and passenger profile. There might also be a senior nurse or multiple nursing staff, often at officer level. On the largest cruise ships, the medical staff could also include a medical dispenser, physiotherapists, and dentists. To be eligible for employment on a cruise ship, medical staff must meet the guidelines regarding their qualifications, experience, certifications, skills, and competencies. (ACEP, 2023; Gibson & Parkman, 2019, p. 163.)

Cruise ships have a qualified medical professional available 24/7 to care for both passengers and crew. Typically, this includes at least one doctor and one nurse on call to respond to any emergencies. An emergency contact number is accessible at all times, prominently displayed in all cabins and public areas.

When ships are docked, those with more than one doctor typically have both a doctor and a nurse stay on board as part of the in-port manning system to address any urgent medical needs. For ships with only one doctor, the requirement extends to having at least one available medical professional, which could be either the doctor or the duty nurse, remain on board to ensure continuous medical support. (Norwegian Centre for Maritime and Diving Medicine, 2021.)

Medical services on cruise ships are accessible to both crew members and passengers, but there are key differences. The company provides free medical care for crew members, while passengers typically pay for onboard medical services and may opt to visit local facilities at ports instead. For passengers, the ship's doctor temporarily replaces their private physician during the cruise, usually less than two weeks. Conversely, for crew members who spend extended periods at sea, the ship's doctor frequently acts as their primary healthcare provider during their contract. The goals of medical care on cruise ships vary significantly between crew members and passengers. While the primary goal for the ship's doctor is to deliver top-notch care to both groups, the secondary goal is to ensure a quick recovery. However, the reasons differ: passengers aim for a swift recovery to maximize their enjoyment of their costly and eagerly awaited trip, allowing the crew to return to work and support their families. (Norwegian Centre for Maritime and Diving Medicine, 2021.)

The MLC requires that national laws and regulations guarantee the following: ships with 100 or more people, usually undertaking international voyages longer than three days, must have a qualified medical doctor on board who is responsible for delivering medical care. If a ship does not have a medical doctor, it is mandatory to have at least one crew member who is specifically responsible for medical care and the administration of medications as part of their regular duties, or at least one person trained in first aid. Individuals tasked with medical care who are not doctors must have completed training in medical care that meets the standards of the Standards of Training, Certification and Watchkeeping for Seafarer (STCW) Convention by International Maritime Organization (IMO), adopted in 1978 and has been amended since. The

Convention defines international competency standards for seafarers and establishes baseline requirements for their training, certification, and watchkeeping, which countries must meet or surpass. Similarly, seafarers tasked with providing medical first aid must have successfully completed training that meets STCW requirements. The Master or the officer in charge of medical care on a ship should seek remote medical advice from Telemedical Maritime Assistance Services centre (TMAS), if necessary. TMAS deliver remote medical guidance to seafarers and other ship personnel. These services are crucial for providing medical care on board, especially for ships without a physician, ensuring quick and easy access to medical assistance. In Finland, TMAS is part of the maritime rescue service, involving health authorities. According to the Maritime Search and Rescue Act (1145/2001), the Border Guard handles radio communications during emergencies and coordinates phone-based medical and maritime assistance. Healthcare authorities provide first aid and medical advice over the phone. (MLC; STCW Convention; Miilunpalo & Linfors, 2019.)

Most ship medical facilities are equipped with radiographic capabilities, and some can perform ultrasonography. The results from these procedures can be exported digitally or transferred onto a disk for patients to share with their physicians. In emergencies, blood can be typed and cross-matched from crew members or other guests for transfusions as needed. The essential medical equipment for comprehensive patient care on board includes a range of vital tools. This includes vital signs monitors such as sphygmomanometers, stethoscopes, thermometers, pulse oximeters, as well as airway management tools like bag valve masks, airway tubes, laryngoscopes, portable suction equipment. Ships must be equipped with at least two cardiac monitors and two defibrillators, including one portable automated external defibrillator, as well as external cardiac pacing and electrocardiograph capabilities. Additionally, electronic infusion and nebulizer capabilities are required, along with an automatic medical ventilator and oxygen supplies, including both tanks and concentrators. Wheelchairs, a stair chair, and stretcher are essential for patient mobility, and there must be refrigeration for medicine storage. Spinal immobilization gear such as long and short backboards, is also required, along with trauma supplies. Lastly, ships should have laboratory testing capabilities for blood

counts, urinalysis, and tests for Malaria and HIV. (ACEP, 2023, p. 4; Jacobs, 2019.)

Finnish ships with working crew members have a restricted selection of medicines and medical equipment, as regulated by the Act on Ship's Medical Stores (584/2015) and Decree of the Ministry of Social Affairs and Health on Ships' Medical Stores (589/2015). This Act ensures that the crew can receive proper first aid and medical care in cases of illness or accident, in accordance with EU Directive 29/92/EEC. The contents of the ship's pharmacy are determined by the ship class and crew size based on traffic areas (Section 4). Although primarily intended for the crew, these medicines can also be used for passengers or others on board in urgent situations. (Miilunpalo & Linfors, 2019.) Cruise ships typically maintain a comprehensive formulary of oral and injectable medications, as well as aerosols, to provide high-quality care for a broad range of health conditions encountered onboard. Ship must maintain a well-stocked, evidence-based pharmacy formulary to adequately serve its varying population sizes and itineraries. The pharmacy should include medications from essential drug classes such as gastrointestinal, cardiovascular, respiratory, central nervous system, infectious disease, endocrine, and obstetrics/gynecology medications. Additionally, the formulary includes fluids and electrolytes, musculoskeletal and joint disease medications, eye and ear treatments, skin disease treatments, a range of vaccines, and various anesthesia medications. Advanced cardiac life support medications must also be stocked in sufficient quantities to manage complex cardiopulmonary emergencies. (ACEP, 2023, pp. 5–6; Jacobs, 2019.)

For documentation, the medical record system must be designed to ensure a well-organized, clear, and uniform record of all medical care provided. It emphasizes the importance of patient confidentiality, stating that all patient medical records are to be considered strictly confidential. Non-medical staff are prohibited from accessing these records without the patient's explicit written consent, except when necessary to ensure safety onboard or ashore, or to comply with applicable legal requirements such as reporting or logging information. Furthermore, the management of these records must adhere to

applicable laws regarding data protection and medical privacy, particularly in jurisdictions like the United States or Europe, ensuring that all procedures are legally compliant. (ACEP, 2023, pp. 3–4.)

Nursing professionals are guided by the International Council of Nurses' Code of Ethics (2021, p. 7) in upholding the privacy, confidentiality, and interests of patients. This commitment extends to all aspects of handling personal information, including its lawful gathering, utilization, retrieval, transfer, retention, and release. Additionally, the International Commission on Occupational Health (2014, p. 25), the international code of ethics for occupational health sets the global standard. Individual medical data and examination results must be documented in confidential medical files, securely maintained by the occupational health physician or nurse. National laws or regulations concerning medical data and relevant national codes of ethics for health professionals regulate access, transmission, and release of these files. The information in these files is used exclusively for occupational health purposes.

#### 2.3.4 Illness and injury

Cruise ship medical centers handle a broad range of illnesses and injuries, with about 10% of cases being emergencies or requiring urgent care. Nearly 95% of these conditions are treated or managed on board, while the remaining cases need evacuation for further dental, medical, or surgical consultation ashore. About half of the passengers who request medical attention are over 65 years old. Visits to the medical center are generally due to acute illnesses or injuries. The most common issues are respiratory illnesses, which account for 30%–40% of cases, injuries from slips, trips, or falls making up 12%–18%, seasickness at about 10%, and gastrointestinal illnesses also at 10%. (Tardivel et al., 2023.) Between 2000 and 2019, 623 deaths were reported on cruise ships worldwide, with 557 passengers and 66 crew members affected. Among passenger deaths, 87% occurred on the ship, while 13% happened during port visits or shore excursions. The causes of passenger deaths were as follows: 23% resulted from falls, 19% from violent acts including a terrorist attack in

Tunisia, 18% from natural causes, 16% from heart-related issues, and 5% from pre-existing conditions such as cancer. Among crew members, 29% of deaths resulted from suicide or murder, and 24% from falls. Alcohol was implicated in 52% of the passenger falls but not in those involving crew. (Heggie & Burton-Heggie, 2020, p. 147.)

A modern cruise ship operates similarly to a floating city, providing shared food, water, sanitation, and air conditioning to a diverse group of passengers with different cultural and immunization backgrounds. The close interactions in shared spaces increase the risk of infectious diseases spreading. The voyage generally includes several port stops, where new passengers and crew members embark, introducing both susceptible and potentially infected individuals into the ship's enclosed environment at various points throughout the trip. Average cruise may last about six to seven days, which falls within the incubation and transmission period of many infectious diseases. Diseases can quickly spread throughout the vessel, either directly between people or through contamination of the ship's food and water supplies or its sanitation systems, potentially leading to widespread illness, especially since the average cruise ship passenger is over 45 many cruise passengers are older and may have pre-existing health conditions, making them more susceptible to infections. (Fernandes et al., 2014, p. 298. Kak, 2015; Millman et al., 2015, p. 10.)

Research on the health issues of passengers and crew on cruise ships indicates that respiratory tract infections are the leading reason both groups seek medical care. Acute respiratory illnesses (ARI), influenza, respiratory syncytial virus (RSV), and other viruses, can affect cruise ship passengers and crew throughout the year. ARI is an illness likely caused by a virus, and characterized by at least two of the following symptoms: cough, sore throat, runny nose, nasal congestion, or fever or feeling feverish. This definition excludes certain conditions: confirmed diagnoses of acute respiratory infections like COVID-19, influenza, or RSV, and other respiratory viruses without readily available point-of-care tests (such as rhinovirus and adenovirus), bacterial pneumonia (whether diagnosed clinically or by specific tests like urine *Legionella* or *Streptococcus pneumoniae* antigen tests), and non-infectious conditions as

determined by a ship's physician, such as allergies. Respiratory viruses can spread easily in commercial maritime travel, where large groups share enclosed spaces, through droplets, small particles, or contact with contaminated surfaces, similar to other close-contact environments. (Centers for Disease Control and Prevention et al., 2023; Kak, 2015.)

After respiratory illnesses, injuries from falling are the second most common reason for seeking help at a cruise ship medical center. Injuries typically result from the interaction of energy with sensitive parts of the body. Often, this involves gravity, either causing a person to fall or an object to fall onto a person. Additionally, injuries can occur from the kinetic energy of a sharp or swiftly moving object. (Norwegian Centre for Maritime and Diving Medicine, 2021, p. 139; Tardivel et al., 2023.) Injuries and accidents can occur in any location, including on cruise ships and other areas. They are a significant global cause of death and disability, and the leading cause of preventable deaths among travellers, with a mortality rate of 83.7 per 100,000 people. Aboard cruise ships, both passengers and crew members are at risk of various injuries, some severe, such as brain, hand, foot, shoulder, neck, and back injuries, which can result in fractures and burns. Despite rigorous safety protocols, slip and fall accidents are common on cruise ships, which feature amenities like pools, restaurants, and dance floors that may have slippery surfaces. Injuries may also occur during onshore excursions or while visiting towns. Additionally, crew members face specific risks: kitchen, restaurant, and bar staff might encounter injuries from knives and broken glass, while those working in engine rooms are susceptible to burns due to high temperatures. (Bekic et al., 2015.)

Gastrointestinal illness and seasickness account for the third most common reasons to seek medical care on a cruise ship. Globally, norovirus accounts for approximately one in every five cases of acute gastroenteritis (AGE), which is characterized by inflammation of the stomach and intestines leading to diarrhea and vomiting. This virus is a frequent cause of these symptoms on cruise ships and can also result in fever, abdominal cramps, nausea, muscle aches, and headaches. Gastroenteritis can stem from viral, bacterial, or parasitic sources, with bacterial types including *Escherichia coli* and *Salmonella*. On

cruise ships, a closed and semi-enclosed environment facilitates the rapid spread of gastrointestinal illnesses. People with gastroenteritis can transmit the infection by touching surfaces like handrails and elevator buttons or through direct contact with others. The disease can also spread via contaminated food or water. (Center for Disease Control and Prevention, 2018; Tardivel et al., 2023.)

The Center for Disease Control and Prevention's Vessel Sanitation Program (VSP) supervises public health inspections and monitors outbreaks of acute gastroenteritis (AGE) on cruise ships entering the United States from international ports. The VSP operates the Maritime Illness Database and Reporting System (MIDRS), which monitors AGE cases among passengers and crew on cruise ships carrying 13 or more passengers within 15 days of arrival. An outbreak is declared by the VSP when 3% or more of passengers or crew report AGE symptoms to the ship's medical staff during a voyage. VSP characterizes AGE as having more than three or more loose stools within 24 hours, which is more frequent than usual for the individual, or vomiting accompanied by at least one of the following: bloody stool, diarrhea, muscle ache, abdominal cramps, fever or headache. From 2006 to 2019, the reported cases of AGE on cruise ships have declined, with passengers exhibiting higher rates of infection compared to crew members. This disparity in incidence rates may be due to different exposure sources, as crew members have separate living, dining, and recreational areas compared to passengers, along with distinct embarkation and disembarkation zones. The decline in AGE outbreaks on cruise ships can be attributed to enhanced environmental health sanitation standards, which are enforced during ship inspections. Furthermore, industry practices such as upholding high hygiene standards, installing hand hygiene stations in public areas, and conducting health screenings for passengers and crew before boarding have also played a significant role in reducing the incidence of AGE. (Jenkins et al., 2021, pp. 1, 6.)

Motion sickness, or kinetosis, involves symptoms triggered by the movement of a person or their surroundings, leading to a stress response and symptoms such as nausea. Seasickness and travel sickness are well-known forms of

motion sickness. Factors increasing the risk include age, gender, pre-existing health conditions, and certain medications. The main symptom, nausea, derives from the Greek word 'naus,' which means ship. On large ships, up to 25% of passengers may experience motion sickness within the first 2-3 days of a voyage. In extreme conditions, up to 60% of passengers, including seasoned crew members, might be affected. The incidence is greater on smaller vessels and during adverse weather. Common symptoms include malaise, non-vertiginous dizziness, nausea, and occasionally vomiting. Treatments and preventative measures often involve anticholinergics, antihistamines, and sympathomimetics. (Koch et al., 2018, p. 687; Leung & Hon, 2019, p. 2.)

#### 2.4 Cruise ship nurse

Defining nursing, given its wide scope and complexity, allows nurses to clearly communicate to patients, families, and others the range of care and services they can provide. They emphasize the nursing role across all ages, communities, and healthcare needs. It helps to describe the key aspects of nursing, such as the range of nursing activities, the approach to care delivery, the necessary knowledge, skills, and education, and the professional status of nursing. (Santy-Tomlinson et al., 2018, p. 147.)

According to the International Council of Nurses (ICN) (2002), a federation of more than 130 national nurses' associations (NNAs), including the Finnish Nurses Association, nursing involves both independent and cooperative care for people of all ages, in any setting. It includes health promotion, illness prevention, and caring for the sick, disabled, and those at the end of life. Nurses also play crucial roles in advocating for safe environments, conducting research, influencing health policy, managing patient and healthcare systems, and providing education. The ICN defines a "nurse" as an individual who has completed a nursing program in general nursing education and is officially licensed by the relevant regulatory body to practice nursing within their country. This nursing education is a formally accredited course of study that offers a wide-ranging and solid grounding in behavioural, life, and nursing sciences. It

prepares individuals for general nursing practice, leadership positions, and further specialized or advanced nursing education.

Initially, nursing education primarily aimed at equipping nurses with the knowledge and skills necessary for hospital-based practice. However, in today's rapidly evolving world, nursing curricula are constantly being updated to reflect advancements in science and technology, as well as cultural, political, and socioeconomic shifts in society. This modern approach prepares nurses for a broader range of settings and roles, catering to the increasing diversity of their roles. (Kearney-Nunnery, 2020.) The growth of nursing as a profession due to educational opportunities and job development has led to different career opportunities (Potter et al., 2021, p. 80). This progression and diversification of the nursing field have paved the way for unique careers such as cruise ship nursing.

Cruise ship nurses are healthcare professionals stationed on ships to deliver both emergency and general medical care to passengers and vacationers when necessary. They also play a crucial role in the occupational health team, focusing on the health and safety of crew members living on board. (Fitzpatrick et al., 2017, p. 81.) Personnel with nursing or paramedic credentials are typically overseen by a ship's doctor, if one is present. However, they may also operate as independent practitioners. To effectively fulfil their roles, these staff members need a combination of general training received onshore, relevant experience in terrestrial healthcare settings, and formal training programs, such as Advanced Life Support (ALS), supplemented by practical experience gained on the job. Additionally, other healthcare workers may be tasked with specific duties under the doctor's direction, such as managing medication orders and scheduling shifts. (Norwegian Centre for Maritime and Diving Medicine, 2021.)

### 2.4.1 Required knowledge and experience

The clinical staff requirement for working in a cruise ship includes possession of current full registration and a valid license to practice (ACEP, 2023, p. 2). In Finland, the Ministry of Education and Culture oversees education and the legislation, Act on Health Care Professionals 1549/2009 governs the practice of healthcare personnel. To qualify as a nurse, you must first successfully complete a bachelor's degree program in nursing at a Finnish University of Applied Sciences. (Finnish Nurses Association, n.d.) The degree complies with the European Union's Directive 2005/36/EC, as amended by Directive 2013/55/EU. The directive specifies that general nurses must undergo a minimum of three years of training, which can also be quantified in equivalent ECTS credits. This training must comprise at least 4,600 hours of both theoretical and clinical education. (Directive 2013/55/EU, p. 151.)

Moreover, the training program for nurses responsible for general care is designed to ensure that they acquire necessary skills and knowledge several key areas. This includes an in-depth knowledge of nursing sciences, including understanding the anatomy and functions of both well and unwell individuals, and how health interacts with environmental factors. Nurses also gain awareness of the ethical aspects and core principles of the nursing profession. The program provides valuable clinical experience, obtained under expert supervision and in well-resourced settings. It also equips nurses with the skills to engage in the training of other health personnel and collaborate effectively within healthcare teams. Furthermore, nurses gain experience in working alongside various healthcare professionals. (Directive 2013/55/EU, pp. 151–152.)

After obtaining your degree, you must apply for a license to practice as a nurse through Valvira, the National Supervisory Authority for Welfare and Health. Nursing is a regulated profession, and only individuals officially licensed by Valvira are authorized to carry out the responsibilities of licensed healthcare professionals. This process will involve verifying that your education and qualifications meet Finnish standards. Valvira may also require additional studies if there are discrepancies between your training and the current Finnish

standards. Valvira, functioning under the Ministry of Social Affairs and Health, oversees the social and healthcare sectors, including early childhood education, alcohol, and environmental health. It issues practice licenses to healthcare professionals, whether they earned their degrees in Finland or abroad, through a formal application process. The public can view the rights to practice in the JulkiSuosikki and JulkiTerhikki databases for social and health professionals, respectively, once a decision is made or registration is completed. Licenses granted for a limited period, or registrations for an adaptation period, are visible in these databases only for their duration. (National Supervisory Authority for Welfare and Health, n.d.)

Additionally, the medical staff are required to have at least three years of work experience following their graduation or registration to work in a cruise ship. The guidelines specified the post-graduate experience required for physicians, which is work experience in general and emergency medicine. For nurses, it is beneficial to have recent work experience in cardiac care, trauma, and internal medicine. Furthermore, postgraduate training in a relevant medical specialty, which can vary based on the specific duties of the role in a cruise ship can be advantageous. (ACEP, 2023, p. 2; Fitzpatrick et al., 2017, p. 81.)

Certification in advanced life support, such as ACLS (Advanced Cardiac Life Support) or ALS (Advanced Life Support) or hold an equivalent certification are required for medical staff working in cruise ships. Advanced Life Support (ALS) involves cardiopulmonary resuscitation in adults by identifying the causes of cardiac arrest, recognizing patients at risk of deterioration, and managing both cardiac arrest and the critical 'peri-arrest' period during the first hour after initial resuscitation. (ACEP, 2023; European Resuscitation Council, n.d.; Norwegian Centre for Maritime and Diving Medicine, 2021.)

Medical staff must also have adequate language skills to the official language of the ship. SOLAS Regulation V/14, it is mandated that every ship establish a working language to guarantee effective crew performance in safety-related matters, and this information must be recorded in the ship's logbook. The ship's master or captain is responsible for selecting the appropriate working

language and commands the vessel while overseeing the deck, engine, and steward departments. All crew members are required to understand this language and, when necessary, use it to give and receive orders and instructions. If the working language is different from the official language of the flag state, all essential documents and plans displayed on the ship must have translations into the working language. Moreover, English must be the working language for all safety-related communications on the bridge or the “ship’s navigation control center.” This includes bridge-to-bridge and bridge-to-shore communications, as well as interactions between the pilot and bridge watchkeeping personnel, unless everyone involved in the communication speaks a common language other than English. (Alibec & Sirbu, 2018; ACEP, 2023, p. 3; SOLAS.)

New employees on cruise ships often find the environment overwhelming at first. The sheer size of the ship, the unique lifestyle, and the different working protocols at sea are unfamiliar and require adjustment. Many choose cruise ship jobs for the travel opportunities, but there are additional benefits such as various job types, competitive pay, chances for advancement, and employment terms. However, it’s important to recognize that these roles involve long hours and extended contracts, making them quite demanding. (Gibson & Parkman, 2019, p. 172.) Ship design often prioritizes spaces for passenger use, like living and entertainment areas, while allocating less space to crew quarters and work areas. This means crew members must manage their duties in tight, physically demanding environments. They work with a diverse team, isolated from friends and family, and their living spaces are small and not easily personalized. The movement of the ship, such as pitching and rolling, along with slippery decks and steep stairs, adds to these challenges. Furthermore, the nature of cruise work requires staff to be on call 24/7, complicating their work-life balance. (Bolt & Lashley, 2015, p. 199.)

International regulations concerning the physical requirements of seafarers are largely influenced by the International Labour Organization (ILO) and the International Maritime Organization (IMO) under the United Nation. The ILO’s MLC mandates that seafarers must undergo periodic medical examinations to ensure fitness and must hold a valid certificate verifying their physical fitness.

Meanwhile, the IMO's STCW Convention sets minimum criteria for seafarers' competence, age, and medical fitness, which must be met or exceeded by national standards established by individual countries. MLC are set to ensure a safe and secure workplace for seafarers, alongside adhering to safety standards and providing fair employment terms according to international standards. They additionally ensure proper working and living conditions on ships, as well as extensive health protection, medical care, welfare provisions, and various other social protections. (MLC; STCW Convention.)

Finland's maritime work, health, and safety are governed by the same international regulations as other countries, such as those set by the MLC and the International Maritime Organization. Additionally, international agreements and EU laws focused on ship safety and seafarer health are implemented nationally. (Miilunpalo & Linfors, 2019.) National legislations in Finland outlines the requirements for seafarers working aboard ships. Seafarer must meet specific medical fitness standards to serve at sea, as mandated by the requirements of their onboard duties. This includes obtaining medical certificates that confirm their medical fitness. For those new to the industry, a pre-sea examination, which is the initial medical fitness examination, is required. Seafarers who will work on international voyages must undergo periodic medical examinations conducted by recognized medical practitioners. Those on domestic voyages are also examined periodically by recognized practitioners or, in special cases, other licensed doctors. Medical certificates, which are issued in Finnish, Swedish, and upon request, in English for those on international voyages, must include the seafarer's name, contact details, and an assessment of their physical and mental fitness. They must confirm that the seafarer has no injuries, impairments, or conditions that significantly hinder their ability to work. The certificates should also verify that the seafarer's eyesight, hearing, and color vision meet the specified standards and that they do not have any illnesses that could worsen at sea, endanger others, or compromise maritime safety. For seafarers under 18, the certificate must also confirm that working on board is not harmful to their health or development. Generally, medical certificates are valid for two years, but for those under 18, they are valid for one year. The assessment of a seafarer's color vision is valid for six years. (Act on

Medical Fitness Examinations of Seafarers 1171/2010, secs. 4–10; Decree of the Ministry of Social Affairs and Health on the Standards of Eyesight and Hearing Required of Seafarers 224/2013.)

In the cities of Helsinki, Hamina, Pietarsaari, Kotka, Kemi, Oulu, Pori, Rauma, Savonlinna, Turku, and Vaasa, local authorities ensure that seafarers have access to healthcare services, including dental care. This access is guaranteed regardless of the seafarers' place of residence. Additionally, these cities provide access to occupational healthcare services that employers are required to offer under the Occupational Health Care Act and other relevant legislation, irrespective of the shipping company's registered office location. (Health Care Act 1326/2010, sec. 19.)

Other related health care and legislations for seafarers includes the Seafarers' Employment Contracts Act 756/2011 (sec. 1). The Act applies to employment contracts where an employee agrees to work under an employer's supervision for pay on a Finnish ship or another designated location. Another is the Occupational Safety and Healthcare Act 738/2002 (sec. 1), which aims to enhance the working environment and conditions to sustain employees' capacity to work, prevent occupational accidents and illnesses, and mitigate other risks to their physical and mental well-being. Additionally, the Occupational Healthcare Act 1383/2001 (sec. 1) outlines the employer's duty to organize occupational healthcare and specifies the content and delivery of the provided services. Lastly, the Government Decree on medical examinations in work that presents a special risk of illness 1485/200 (sec. 1) relates to work that carry a special risk of illness, the employer must arrange and pay for medical examinations for employees or others.

#### 2.4.2 Responsibilities and duties

The role of a cruise ship nurse encompasses a variety of healthcare responsibilities, including general care, emergency responses, and occupational health for crew members. These nurses are crucial for managing health services on

board, providing both routine and urgent medical care to passengers and crew alike. Importantly, they are integral to the occupational health teams dedicated to the wellbeing of crew members living on the ship, ensuring a safe and healthy working environment. This comprehensive approach to healthcare at sea ensures that all aboard have access to essential medical services. (Fitzpatrick et al., 2017, p. 81; Musa & Lucero-Prisno III, 2022, p. 227.)

Cruise ship nurses provide patient care for both routine and emergency situations to passengers and crew, addressing a extensive range of medical issues from first aid and seasickness to critical conditions such as cardiac arrest and severe injuries. Immediate emergency first aid is critical, as the first few minutes are vital for the patient's survival. The first aid procedures are consistent regardless of whether the situation involves an accident or an illness. Nurses maintain ongoing communication with the physician, keeping them informed and updated at all times. Nurses assess and triage patients, providing treatment and advice for specific medical conditions, and aid the physician in identifying emergencies that require immediate intervention. Additionally, nurses assist the physician with medical procedures and treatments in the medical facility, perform various laboratory tests and other procedures and provide discharge instructions for each patient. They dispense and administer medications accurately and safely, reviewing appropriate warnings and precautions with the patient and according to the physician's orders. All medications and medical supplies administered to or removed from the patient must be recorded in the medical log. Nurses also participate in comprehensive training on board to enhance and develop technical skills, including X-ray acquisition and laboratory testing. (Carnival Corporation, n.d.; Fitzpatrick et al., 2017, p. 81; Holland America Group, n.d.; Miilunpalo & Linfors, 2019; Princess Cruise Lines, n.d.; Pro Sea Staff, n.d.)

Cruise ship nurses must maintain their presence in the medical facility during duty hours, except for meals, official errands, or emergency calls. When outside the medical facility, various communications devices are used such as walkie-talkie, and taped phone messages to remain accessible and responsive. They manage and schedule regular medical examinations for crew

members, notify department heads of the appointment times, and ensure all records of crew member physical examinations are kept up to date. They provide medical care to crew members who are injured or ill while serving on the ship and request shore-side referral appointments via the medical department as needed. Nurses also participate in the delivery of preventative health programs and contribute to drills, audits, inspections, and the training of other crew members. (Carnival Corporation, n.d.; Fitzpatrick et al., 2017, p. 81; Holland America Group, n.d.; Princess Cruise Lines, n.d.; Pro Sea Staff, n.d.)

Nurses must remain on call 24 hours a day, respond to all emergency codes even when off duty, and serve on a daily medical 'on call' roster to assist the on-duty doctor. They serve as first responders, triaging emergency calls, assessing and treating patients on-scene, and transferring them to the medical facility for definitive care. They collaborate with a team of health professionals to stabilize patients for transfer to the nearest land-based medical facility and accompany them during the transfer when necessary. Additionally, nurses participate in regular nursing team and departmental meetings to ensure cohesive and coordinated care. Throughout all their duties, cruise ship nurses maintain strict confidentiality regarding patient information and medical records at all times. Handing over information about health status and treatment to third parties requires the patient's written consent or the right to access the information stipulated by law. Cruise nurses also handle a variety of technical and administrative responsibilities to maintain the efficient and safe operation of the onboard medical center. They prepare and maintain documentation, including patient medical logs, crew medical records, referral logs, narcotic counts, medical facility bills, and medical supplies usage reports. Ensuring all related paperwork is completed accurately, promptly, and legibly in the ship's filing system or electronic medical records is crucial. Additionally, they provide first aid supplies for first aid boxes, maintain all first response and secondary medical space bags, and annually check medications in lifeboat canisters, ensuring they are ready for use when needed. Regular checks on medical and emergency equipment are conducted to ensure readiness for any situation. Adhering to company policies for inspecting diagnostic, life support, and other medical equipment is essential to verify that they are in proper working order.

(Carnival Corporation, n.d.; Fitzpatrick et al., 2017, p. 81; Holland America Group, n.d.; Miilunpalo & Linfors, 2019; Princess Cruise Lines, n.d.; Pro Sea Staff, n.d.)

Cruise nurses also obtain and test water samples for organism using the method designated by public health authorities, maintaining a log of test results and reporting any findings to the physician or ship captain. They cooperate and follow ship's policy regarding infection control and public health matters, and implement the prevention plans in the event of an outbreak of any communicable diseases. Their routine schedule covers crew training, potable water testing, food-handling checks, first aid kit maintenance, medical inventory, expired medication monitoring, office supply requisitions, illness log management, and equipment calibration. They oversee the operation, cleanliness, and good order of the medical facility, ensuring it is maintained. The treatment tables and soiled surfaces are washed and wiped with a cloth moistened with disinfectant. A solution containing chlorhexidine or alcohol can also be used. Cruise nurses manage the removal of all expired medications from shelves, disposing of them according to environmental policies. They ensure proper accountability and disposal of hazardous wastes and used sharps, including needles and syringes. They should be placed in a hard, sealable container marked as infectious. Pre-made yellow waste containers are ideal for this purpose. Additionally, they maintain proper inventory levels of pharmaceutical and medical supplies by regularly assessing stock and promptly notifying the appropriate authority of any missing items or discrepancies. Throughout all these tasks, cruise nurses comply with ship's medical regulations, public health policies and procedures, ship's regulations, and other relevant governmental regulations. (Carnival Corporation, n.d.; Fitzpatrick et al., 2017, p. 81; Holland America Group, n.d.; Miilunpalo & Linfors, 2019; Princess Cruise Lines, n.d.; Pro Sea Staff, n.d.)

### 2.4.3 Cruise ship nursing: Insights from the field

A cruise ship nurse working on a Finnish ship provided valuable perspectives on the job description of a cruise ship nurse. The nurse explained that in Finland, there is no specific education to become a ship nurse. Instead, any nurse or specialized nurse with at least five years of first aid experience can take on this role. An STCW certificate or first aid training is essential for working independently. Additionally, an induction or orientation period is required before working solo, with its length varying by ship. (Cruise ship nurse X, 2024.)

Key skills for a cruise ship nurse include the ability to work independently and make decisions. Their primary tasks involve caring for staff and managing their occupational health, as well as attending to passengers with acute medical cases. The nurse collaborates with the occupational health and safety group to minimize workplace accidents and coordinates with visiting occupational health nurses. Part of their daily duties includes staffing the medical facility, handling emergency cases for both crew and passengers, consulting with doctors as needed, and making decisions about patient evacuation or medication administration. The first aid team may include additional personnel, such as security staff, if extra help is required. The medical equipment on board is comparable to that of an ambulance. (Cruise ship nurse X, 2024.)

Administrative responsibilities include registering sick leaves and expenses, ordering medicines and necessary equipment, and arranging meetings with workers. The nurse's typical shift runs from 9:00 am to 1:00 pm and from 4:30 pm to 11:00 pm, totalling about 10.5 hours per day. Working periods last between 8 to 10 days, followed by time off. Health promotion activities involve encouraging the crew to use gym facilities and eat healthier. The nurse remains available for the crew, using their intuition to address any issues that arise. (Cruise ship nurse X, 2024.)

Essential skills for the role include high stress tolerance and the ability to stay calm. The medical facility is well-equipped, featuring instruments such as suturing tools. The nurse usually works alone but under the supervision of a

physician, who leads the first aid group. Common illnesses treated include flu and stomach ailments, while typical injuries are contusions and wounds. In cases of infectious disease, the affected crew member is isolated in their cabin, with food and drink delivered to them, and must disembark in Helsinki if necessary. (Cruise ship nurse X, 2024.)

The nurse expressed satisfaction with the working environment, noting the well-equipped medical facility. However, challenges arise when working outside the facility, particularly during evacuations and rescue operations, which involve multiple departments. The nurse's accommodation is a small cabin near the medical facility for practical reasons, especially during night shifts. (Cruise ship nurse X, 2024.)

The main challenges include working independently, making decisions without a colleague to consult, and being on call 24/7, which impacts free time and sleep. Despite these challenges, working alone can also be rewarding, as it allows for personal work planning. A significant benefit is the extended free time after the work period. However, work-life balance is difficult due to the constant on-call status and interrupted sleep. The nurse emphasizes the importance of maintaining well-being through proper rest, nutrition, and self-care. Although there is no career advancement due to being the sole medical professional on board depending on the ship, its cruise duration and its destination, professional development is possible through employer-organized courses tailored to the ship nurse's needs, which is a rewarding aspect of the job. (Cruise ship nurse X, 2024.)

## 2.5 Electronic file

Job description is made either on paper or electronically. Nowadays the most popular way to make it is by electronic form and there are several types of software or applications now to help make, form and update job description. However, paper still is used in some offices or for job descriptions. (Pató, 2017, p. 1117.) An electronic file, such as a PDF, is suitable for both online and offline

reading on computers and laptops. It can be shared as an email attachment and is easily updated or edited. Therefore, the author chose this format for its versatility and convenience.

The electronic document should be structured in an easy-to-understand format. Use subheadings to break up long descriptions, but avoid lengthy paragraphs and extensive prose, as these can discourage individuals from reading the entire posting. To improve readability, incorporate bullet points and emphasize key messages by using bold text. Choose accessible and legible font styles and sizes, such as Arial, Tahoma, Verdana, or Open Sans, which offer a minimalist appearance. Additionally, avoid italics and underlining, as they can cause letters to blend together visually for some readers. (Woods et al., 2021, pp. 123, 124.)

### 3 PURPOSE AND OBJECTIVES

The main purpose of the project was to develop a PDF document outlining the job description of a cruise ship nurse. The document was provided to the subscriber, Maritime Logistics Research Center, for their use upon completion. The primary objective of the project was to broaden the subscriber's knowledge of the cruise ship nurse's job description. This involved gaining a comprehensive insight into the unique responsibilities that cruise ship nurses face, as well as the skills and qualifications required for this specialized role. Additionally, the project aimed to deepen the author's comprehension in the field of cruise ship nursing. The author learned more about this unique nursing field in maritime environment, understood the specific responsibilities and qualifications required for the role and familiarized themselves with its regulations and practices. The final objective was to offer valuable insights and information to individuals interested in this specialized area, particularly those considering a career outside the traditional hospital setting.

## 4 PROJECT IMPLEMENTATION

### 4.1 Description of the target group

Maritime Logistics Research Center is one of two research centers operating at Satakunta University of Applied Sciences (SAMK), Rauma campus. The Center carries out a variety of both national and international research, which includes product and service development based on blue and green growth concept. The Center also connects experts on maritime logistics and supply from Satakunta, Finland. The main purpose of the Centers operation is to provide continuous improvement regarding maritime logistics operation, infrastructure, logistics safety utilizing digitalization, and security of supply. Moreover, they also aim to develop Finnish maritime cluster. Their prime goal is to solve maritime digitalization and green growth challenge in collaboration with several partners in the field. (Maritime Logistics Research Center, n.d.)

### 4.2 Project methodology

The thesis author implemented the Agile method in the thesis project. It is known by dividing tasks into small and incremental portions. These tasks are assigned, managed, and completed within short amount of time known as iterations or sprint. Typically, sprint last for up to two weeks, though the duration can be shorter. The duration is usually defined by the author. (Heldman, 2018, p. 283.) Additionally, Wells & Kloppenborg (2019, p. 7) noted that sprints may also last up to four weeks and towards the end of each sprint valuable outcome will be produced.

The Agile method allows for continuous and straightforward amendment throughout the project's various phases. The project had an initial general plan that served as a roadmap for the next stages. However, there was frequent revisiting previous stages to make some adjustment. This flexibility allowed the project to keep moving forward while making changes as necessary by completion of one task while the next task is being planned and executed. Agile

approach evaluates and adjust processes to suit new or revised requirements. (Heldman, 2018, p. 283.) The ease of working on different phases at the same time, when necessary, surpassed the rigid structure methodology of the traditional approach, where one phase must be completed to proceed to another. The Agile approach suited the project well, as it accommodated the challenges and shifting priorities encountered by the author. Despite these obstacles, the project continued forward and progressed to its completion.

#### 4.3 Stages of the project

The project progresses through five standard stages or phases: initiation/ design, planning, execution/ implementation, monitor/ control; and closing. Although a simple project may have just four stages, larger projects may have six or more. Despite the variation, all projects have starting and end points and include lists of tasks or activities that must be accomplished before starting the next stage. (Sipes, 2015, pp. 11, 96; Wells & Kloppenborg, 2019, p. 4.)

The first stage of a project is the initiation or design as some organizations refer to. The process starts when it has been decided that a project or research is needed. These may include activities that must be done prior to formally planning the project. (Sipes, 2015, p. 38.) At this stage, the author chose the topic, wrote the topic analysis report, and presented the report. The report included the description of the target group, choosing the key concepts, preliminary review of the literature and the timetable for the project.

The second stage of a project is the planning, which is one of the most important phases of a project. In this phase, detailed plans of the project will be developed until the research plan is complete. (Sipes, 2015, p. 58.) The second stage was when the author developed the research plan. It involved identifying key concepts of the topic, choosing the methodology for the project, writing the purpose and objectives, exploring potential resources and risks, outlining the stages of the project, and considering ethical viewpoints. The

initial plan was presented and modified based on the supervisor's feedback. Finally, SAMK agreement for the thesis was prepared and approved.

The third stage is execution or implementation. This is when the project actual work is carried out by following the design of the project plan and the agreement (SAMK, n.d.; Sipes, 2015, p. 94). The thesis author implemented the planned task and activities outlined in the project plan according to the chosen methodology. This included literature retrieval and writing various sections of the thesis report, such as the theoretical background. Additionally, the author created the PDF file detailing the job description of a cruise ship nurse. The specific steps in this process involved gathering various resources from existing documentation on cruise ship nurse job information, listing the requirements and responsibilities for the role, and cross-checking information with available international and local policies, regulations, and guidelines. Informed and updated the thesis supervisor of the project progress.

Control or monitoring is the fourth stage. This occurs simultaneously with the implementation stage. Continuous monitoring of the project progress and making necessary modifications as needed. Tasks involving the phase includes control of the changes and schedule, and risk and resources monitoring. (Sipes, 2015, pp. 65, 116.) The author submitted the thesis report and accompanying product to the thesis supervisor, a subject expert in cruise ship nursing, and the project subscriber. Upon receiving their feedback, the author made the necessary final corrections to the report and product based on their suggestions and recommendations.

The last stage, closing and evaluation is when the final product is finished or delivered. This also involves resolution of issues and completion of the final report and documentation for termination of the project. The thesis author collects information of the lessons learned in project completion, what worked effectively and what needs improvement. (Sipes, 2015, pp. 97, 155.) During the last phase, thesis author informed the thesis supervisor and subscriber of project's completion. The thesis supervisor conducted an evaluation, and the

subscriber approved the product. Finally, the completed work was submitted on Theseus.

#### 4.4 Literature retrieval

To identify the key concepts for the thesis project, the author considered synonyms and related terms relevant to the topic. Then, the author reviewed the titles, abstracts, and keywords of initial search results to refine the understanding of the topic and find more relevant terms. To ensure standard terminology, the author used web dictionaries and thesauri, including medical subject headings (MeSH), to find standardized terms and synonyms. The author also tried different keyword combinations, using both simple and advanced searches with alternative terms and Boolean operators. Simple searches were “job” AND “nurse” AND “cruise”, “job description” AND “cruise ship nurse”, “writing” AND “job description”, “job analysis” AND “methods”, “electronic file” AND “creation”. Other more advanced searches were: (“job” OR “task” OR “responsibility”) AND (“nurse” OR “nursing” OR “nurs\*”) AND (“cruise” OR “ship”), (“job description” OR “job responsibilities”) AND (“writing” OR “creation” OR “development”). This process helped the author identify the most effective search terms. Through this approach, the author identified key concepts for the thesis project: job descriptions, job analysis, cruise ship, cruise ship nurse, and electronic file. These concepts were selected based on their frequency and relevance in search results, alignment with the topic, and insights from dictionaries and thesauri.

The author explored and selected those most suitable for the thesis project needs by identification of the best search services or databases. Primarily, the author used SAMK Finna, which provided access to the library’s collections, including books and thesis. It also offered international e-materials, making it easy to find scientific articles by searching through various databases like PubMed and Cinahl. Additionally, SAMK Finna’s e-resources for health included professional and academic field-specific databases such as Science Direct, ProQuest and Emerald Insight. Google Scholar was another valuable tool for

the author, used to locate international research articles, reports, and professional publications. The author also utilized Theseus.fi to access Finnish AMK (University of Applied Sciences) Bachelor's and Master's theses. To organize and save useful sources for further use, the author used Mendeley as a reference management tool. In conducting the searches, the author used a combination of databases and specific search queries, applying filters such as time restrictions and limiting results to full text content. The author established clear criteria for what should be included and excluded in the review, ensuring a focused and relevant selection of materials. Table 1 shows the inclusion and exclusion criteria for the project. Through this approach, the author was able to gather relevant information effectively, ensuring a thorough and well-rounded coverage of the research topic.

Table 1. Inclusion and exclusion criteria

Inclusion	Exclusion
Papers published between 2014 to 2024	Papers before 2014
Access to full text content	Inaccessible and paid content
Available in English and Finnish language	Other language
Contained key search words related to topic	Did not contain key search words and unrelated to topic

Some exceptions for the criteria were the citation of ethical guidelines by Finnish National Board on Research Integrity (TENK) published in 2013, definition of nursing by International Council of Nurses published in 2002 and sources from international law and agreements related to maritime health and safety, which was adopted from more than ten years ago, but has been amended recently to reflect changes or improvement. These included the Maritime Labour Convention (MLC), International Convention for the Safety of Life at Sea (SOLAS), International Convention on Standards of Training, Certification and Watchkeeping for Seafarer (STCW). According to SAMK reference guide, sources of law such as statutes, acts, directives, agreements, and solutions differ from the APA general guidelines and the year of publication is not

included in a citation, but it has to be as accurate as possible by referring to specific section or paragraphs. (SAMK, n.d.)

## 5 EVALUATION

### 5.1 Project and product evaluation

The primary objective of the project was to broaden the subscriber's knowledge of cruise ship nurse's job description and to deepen the author's understanding in the field of cruise ship nursing. The objectives were to gain a comprehensive understanding of the responsibilities of a cruise ship nurse, as well as the necessary training, education, work experiences, skills, and competencies required to provide healthcare services on a cruise ship and ensure the well-being of both passengers and crew.

To achieve these objectives, the author employed the agility method to complete the project and develop the product. Upon completion, the author conducted a self-evaluation and expressed satisfied with both the project and the product. Despite facing time management challenges that prolonged the writing process, the project was ultimately completed successfully. Managing the workload independently provided the author with valuable learning experience in writing a thesis project and developing effective management skills. This process allowed the author the personal objective of expanding their understanding of the cruise ship nursing field. The author hopes to have the opportunity to work in this field and write a follow up to the thesis project in the future.

The subscriber of the thesis project provided feedback via email after reviewing the completed project and product. While a few minor improvements were suggested, the overall feedback was positive, and the final product was well-received. The comments were acknowledged and helped to finalize the thesis report. It was suggested that the implementation of the product would be an

excellent subject for future study. Additionally, a cruise ship nurse reviewed the product and provided positive feedback. She described it as “excellent”. She found no areas that needed corrections or improvements.

## 5.2 Resources and risks

Resources are needed for any projects to be completed. These resources could be anything that could help achieve its realization, such as people, supplies, material, equipment, money, and other resources that must be used to complete the project. (Wells & Kloppenborg, 2019, p. 25.) Part of the resources for the project was the thesis author, responsible for getting the project completed. The free access to wide range of academic journals thru the library’s online databases was used. Included was school library’s copying and printing of documents, interlibrary loan of books, internet access and reservation of room for writing hours. Other resources such as laptops and software for writing the report is owned personally by the thesis author. Financial resources were not utilized and if there were any, cost was covered by the thesis author. Changes in schedule and priorities due to work, school and others was accommodated as necessary and the thesis supervisor was notified.

Risks are defined as unknown events that could happen during any stage of a project. Positive risks or consequences are perceived as opportunities whilst negative consequences are called threats. Negative risks or threats can arise at any stage of this project and may delay its progress. Risk management, therefore, is crucial to prevent or minimize negative consequences and maximize positive ones. (Project Management Institute, 2021, p. 53.) While not all identified risks will materialize, it's crucial to acknowledge their potential impact and manage them accordingly. A risk management plan explains how these risks will be recognized, evaluated, and addressed throughout the project's lifecycle. The process involves: identifying risks, assessing its likelihood, managing them effectively, and continuously monitoring and controlling them. This plan helps project managers to address any risks that could disrupt the project's success. Regular reviews are essential be aware on emerging risks,

allowing for timely intervention. Given that all projects have some level of risk, documentation of potential risks is important. Conducting and updating risk assessments should be ongoing throughout the project duration. Key areas of concern, such as time, budget, and resource availability, require constant monitoring. It is essential, when risks happen, to manage their occurrence and prevent them from derailing the project. Risks classified as "high" needs to be addressed immediately to prevent any setbacks in project progress. (Sipes, 2015, pp. 78–79.) SWOT analysis of this project is carried out in Figure 1.

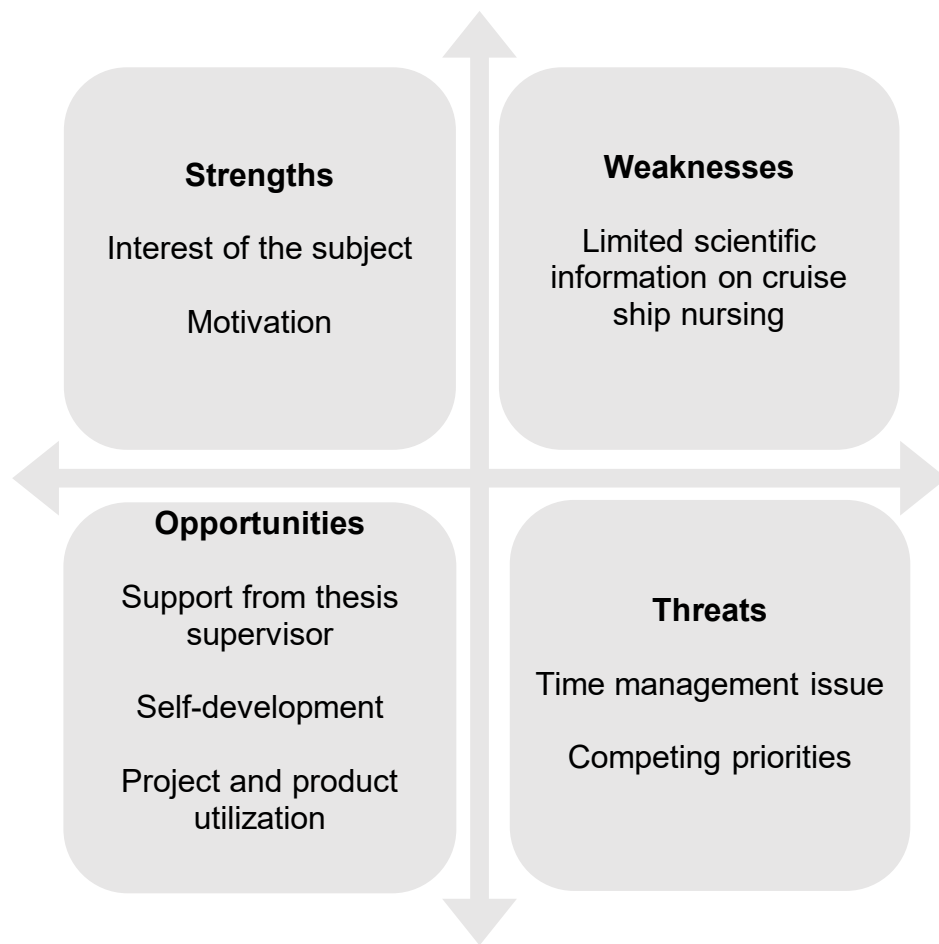


Figure 1. SWOT analysis of thesis project.

The project encountered negative risks, primarily coming from challenges in time management and external commitments. The allocation of sufficient time to different stages of thesis writing proved to be a difficult task, resulting in delays. Managing thesis work alongside other obligations, such as employment and clinical placements, further contributed to the issue, leaving limited resources of time and energy for advancing the project. During this project,

one of the co-authors left and the remaining author took over all responsibilities and adjusted the project's scope and timeline accordingly. The project carried forward, ensuring the achievement of the research objectives. Furthermore, the thesis project faced difficulty in accessing relevant information regarding cruise ship nursing. The limited scientific information on the subject posed a considerable challenge. However, despite the setback, the author coped to overcome these obstacles by expanding the search and including sources from international guidelines, maritime experts, cruise companies in partnership with recruitment agencies, which proved to be instrumental in sourcing essential information. The effort helped bridge the informational gaps and significantly easing the path to project completion.

### 5.3 Ethical considerations

European cruise industry has been one of the largest cruise markets with more than 20 million passengers since July 2020 after a hiatus from COVID-19 pandemic (CLIA, 2022). Due to the fast-growing market, medical staff, especially cruise ship nurses are always in high demand. The project research developed the job description of a cruise ship nurse based on available and relevant information. According to Finnish National Board on Research Integrity (TENK) (2013, p. 30), researchers must follow the responsible conduct of research for the research to be reliable and results credible. Hence, the thesis author conducted the research project following the ethical principles and guidelines for nursing research.

Principles of integrity, meticulousness, and accuracy in research produces reliable results. Ethical guidelines on how to correctly handle research data to assure well-executed scientific practice. Scientific practice needs to be applied throughout the whole project process, e.g., data collection, analysis, and result representation. Reliability and credibility are fundamental elements of the project. Thus, literature retrieval of the project was based on approved resources, including books, research articles, journals, and related resources. Additionally, data will be analysed following proper methodology; therefore, no

misrepresentation, falsification, or fabrication are made. (Finnish National Board on Research Integrity, 2013, p. 30.) More importantly, the agreement on thesis preparation has been secured from SAMK prior to the start of writing the thesis project.

The Copyright Act outlines the right to quote parts of published work by abiding to right procedure and to its limit or extent (Copyright Act, sec. 11). The author considered the copyrights issues in relation to theoretical framework from articles, books, and journals for the final product. The work of researchers was acknowledged accordingly by proper citation of their work and following correct guidelines. Finally, thesis is a public document and will be kept permanently in the institution archives (SAMK, n.d.). The author ensured that no data deemed confidential or requiring secrecy was used. Information deemed confidential by the subscriber remained private and excluded from the thesis report. (SAMK, n.d.)

In addition, the author conducted personal communication via email with a cruise ship nurse to gather insights for the thesis project. The nurse did not grant permission to use her name, so no identifying information has been included to protect her identity. This communication has been cited in the bibliography according to SAMK (n.d.) reference guidelines, ensuring that all ethical considerations regarding privacy and confidentiality were maintained.

## 6 DISCUSSION

Cruise ship nurses play a vital role in global maritime health, responsible for providing both general and emergency medical care to a diverse and often large population of passengers and crew members. Their training, work experience and education are crucial in enabling them to deliver quality healthcare services on a cruise. The range of medical issues they encounter on the ship

varies from minor illnesses to life-threatening injuries, demanding quick thinking and ability to work independently.

Cruise ship nurses encounter unique challenges onboard, including limited medical resources, being in a confined space for extended periods, and dealing with a diverse passenger population. Although they work with other medical staff, they also collaborate with non-medical crew members, requiring effective communication and teamwork skills. This collaboration is essential to ensure comprehensive patient care and smooth operations within the confined environment of a cruise ship.

The path to a career as a cruise ship nurse begins with obtaining a degree from an accredited nursing school, acquiring a valid nursing license, and gaining work experience in internal medicine, acute care, emergency care, and intensive care for at least two to three years. Pre-employment requirements include a medical certificate, and nurses must complete Advanced Life Support training and other training mandated by the International Maritime Organization. Staying updated with international and local healthcare practices, regulations and protocols is also essential.

Despite the reward of traveling to different countries, the working conditions for cruise ship nurses can be demanding. They often work long hours and are on call 24/7, even during off days. Unlike land-based work, cruise ship nurses do not have the liberty to go home after work to unwind and must adapt to living in limited accommodation space. These conditions can potentially impact their well-being and health, highlighting the need for resilience and adaptability.

Cruise ship travel is becoming increasingly popular, getting younger passengers and larger cruise ships being to accommodate more people annually. These trends suggest that medical facilities on cruise ships will improve over time, requiring that nurses adapt to more advanced medical equipment and broaden their responsibilities. Continuous training is essential to ensure that

they are well-prepared for a range of medical scenarios and emergency situations.

In conclusion, cruise ship nurses are essential in maintaining the health and safety of passengers and crew on maritime voyages. Their skills, work experience, education, and training ensure they can meet the challenges of this demanding yet rewarding career. By understanding the specific tasks and responsibilities, as well as the necessary qualifications, it becomes clear how essential these professionals are to the smooth operation of health care services on cruise ship.

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