



LUND UNIVERSITY  
School of Economics and Management

# **Factors of Job Satisfaction in the Healthcare Industry**

A quantitative analysis among nurses working in the Emergency Department in  
public hospitals in Sweden

Master Thesis

by

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## Abstract

Purpose	The study aims to analyze and explore the factors that affect job satisfaction among nurses working in Emergency Departments.
Methodology	An online questionnaire was implemented to examine the factors that most influence overall job satisfaction among nurses in the Emergency Department. The survey contained items on job characteristics, as well as basic socio-demographics.
Findings	Based on the results from the quantitative study, nurses working in the Emergency Department have a low overall job satisfaction score, with an average of 2.65 in a scale of 5-point Likert scale. The most influential factors of job satisfaction with significant correlation with the overall job satisfaction is work itself (0.801, $p < 0.01$ ) and the relationship with management (0.795, $p < 0.01$ ). Socio-demographic factors such as age, gender, level of education and number of children are not significantly influential on the total score of employee satisfaction.
Originality/Value	Explore the determinants of job satisfaction nurses in the Emergency Department, highlight its importance in the current situation in Sweden and make recommendations about which are the main determinants of job dissatisfaction that need to be tackle from a managerial perspective.
Conclusion	The low job satisfaction should be tackle from the managerial level by: implementing individual evaluation of the job satisfaction among nurses, increase the positive feedback from supervisors, involving experienced workers in the ED to influence in organizational decisions, introducing individual meetings with employees to identify their particular needs, improve the number of human resources by attracting internally contracted employees with compensations for weekends and evening/nights instead of hiring external nurses to cover those shifts.

**Keywords:** job satisfaction, healthcare industry, nurses, Sweden, employee satisfaction

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## **1. INTRODUCTION**

*This chapter exhibits the background of the research problem and analyses the present situation in the Swedish Healthcare system, in order to provide a better understanding on the aim of the study and its contributions on the interesting field. In addition, an outline of the research method is presented together with the research questions and preliminary hypothesis. Finally, some delimitations around the study are exposed.*

### **1.1 Background and research issues**

Nurses play a significant role in direct public health services as according to the World Health Organization (WHO), they account for 50% of the healthcare workforce in many countries around the world thus, serves a critical link in the delivery and strengthening of the health care system (World Health Organization, 2016). Due to this reason, the lack of nurses is a pressing crisis and according to the International Council of Nurses (ICN), the shortage is mainly driven by the increase of demand that exceed the supply of nurses. Factors such as increase in aging population, growth in population, the rise in chronic and noncommunicable diseases are some of the main contributors to the increase in demand over the years (International Council of Nurses, 2006). Further, WHO also projected that by 2050, the proportion of the world's population that will be above 60 years old would almost double from 12% to 22% which shows that the demand for nurses would only increase in the future.

A study done by Toh et al (2012) found that there is a positive relationship between the nursing shortage, job dissatisfaction, stress and burnout. This highlights the importance of adequate staffing of nurses, as the shortage would have detrimental effect to the well-being of the nurses which ultimately would affect their performance (Toh et al. 2012). Furthermore, based on a study conducted by Irvine and Evans (1995), there is a strong negative correlation between job satisfaction and turnover and the nurses' intention to leave is a strong predictor of turnover. The subject of predictors of nurses' turnover has been an area of interest of many researchers, thus extensive research has been done on this topic. Some of the significant factors are working conditions, age, tenure, job satisfaction, organizational commitment, leadership style and advancement opportunity (Tai et al. 1998; Yin and Yang, 2002).



This is an alarming issue as based on a study conducted by Aiken et al. (2012), where they studied nurses' working conditions in 12 European countries, including Sweden, found that nurses are generally dissatisfied with their working conditions and that the turnover intention among them are high enough that nurses' shortage would remain a problem in the future. Further, the study also found that to cope with the shortage, hospitals all over the 12 countries are rationing care, thus increasing concern of the undermining of quality of care and patient safety. In respect to our study, understanding what contributes to job satisfaction in nurses in the emergency care is especially instrumental in recruitment and retention of skillful nurses that serves in the frontline of direct health services. Emergency Department (ED) nurses are especially interesting as due to the nature of their job, they are especially susceptible to secondary traumatic stress, as found by a study conducted by Morrison and Joy (2016). Further, a study found that nurses in ED are also the most vulnerable to attacks and assaults from patients and family members (Edward et al. 2014). These factors further contribute to the high level of burnout, consequently affect the workplace condition and environment (Gómez-Urquiza et al. 2017). Though this topic of research is extensive, the current study will mainly focus on the ED, specifically in Sweden, which will be further analyzed in the next section.

## **1.2 The Swedish healthcare industry as research focus**

According to Curtis and O'Connell (2011, p.32), the development of healthcare workers has been affected by the "Demand for health services, supply and demand of healthcare professionals, the education system of a country, wage system, a profession's social status and the existence of an organized plan regarding human resources". In order to provide a background of the healthcare system, with a special view on the organization of the Emergency Departments (ED), the factors mentioned above, plus the job characteristics of the nurses and specialised nurses, are presented below.

The Swedish healthcare system is managed by the national government, 21 county councils (Landsting) and their 290 municipalities (Kommun). The county councils are classified into six health care regions: North, Uppsala-Örebro, Stockholm, West, South-east and South as seen in Figure 1. (A. Anell, A. H. Glengård, and S. Merkur, 2012). The healthcare workforce is divided in seven areas including: close to home care (primary care clinics, maternity care clinics, psychiatric clinics, etc.), emergency care, elective care, in-patient care,

out-patient care, specialist care, and dental care. The number of public hospitals in Sweden with acute care is 70 (Glengård, 2012), including regional/ university hospitals and county council hospitals. The emergency services are provided with a full workforce 24 hour a day, 7 days a week, 365 days a year (Glengård, 2018).

The demand for the emergency healthcare services has been increasing during the last years. As shown in the health spending indicator provided by the The Organisation for Economic Co-operation and Development (OECD), Sweden has one of the highest consumption of health care goods and services with an average of 5488 dollars per capita in 2016 (OECD, 2018). Despite this fact, Sweden has one of the lowest hospital acute care beds relative to their population size, 2.4 beds per 1000 inhabitants according to the (OECD, 2018). Even though the offer of services is lower than the demand, the ED crowding does not represent a major issue.

According to Eurostat (2017), the total number of nurses in 2015 was 107 988, where 70 percent are employed (Socialstyrelsen, 2018). The number of nurses per 1000 inhabitants is 11.1, one of the highest in the OECD countries and above the EU average 7.9 but not as high as other European countries such as Switzerland, Finland, Norway or Germany with data from 2014 (OECD, 2018). The industry is dominated by women with an 88 percent of employed personnel and the average age among professional nurses is 53, having increased during the last years (Socialstyrelsen, 2018). Furthermore, data extracted from Statistics Sweden (2018) shows that 70 percent of the working specialised nurses are 45 years old or above. This fact shows the retiring threat that will further increase the shortage of nurses in the next 20 years if there is no previous solution.

Education is another important issue to address in order to assure the offer of new health workforce. Nurses receives their bachelor's degree after three years of university studies, which are totally financed by the Swedish state, receiving a license to work after study. In order to become a specialized nurse extra studies (1 to 1.5 years) in university level are required. All these demographic factors such as age, gender, education level and work experience will ultimately affect the job satisfaction as found by Ramoo, Abdullah and Piaw (2013).

According to Statistic Sweden (2018), the unemployment rate for nurses is low, below 0.5% and that the income level of health workers in Sweden has been increasing during the last five years. The average wage among nurses working for the county council is 34 300 kr, whereas the average for Intensive Care nurses is 37 800 kr (Sweden Statistics, 2018). Further, around 80% of active nurses are unionized in Sweden (Vardförbundet, 2018). The nurses are also entitled to a minimum of four to five weeks paid vacation per year to make up for their average working shift of 38.25 hours per week (Lindqvist, 2014).

### **1.3 Study contributions**

In recent years, the interest among nurse job satisfaction in Sweden has increased due to the lack of nurses in the country. Despite the high amount of studies conducted to determine the job satisfaction causes among nurses (Lundh, 1999; Holmberg, 2017; Gardulf et al. 2008); the research focusing on nurses in the ED is lacking. Further, nurses in ED are exposed to less favorable work condition and environment compared to their counterparts in different departments thus, these nurses have higher degree of burnout and stress level compared to other nurses (Adriaenssens et al., 2011; Browning et al. 2007). Consequently, this study would help in understanding the factors that lead to job satisfaction in nurses in ED specifically in Sweden and would be instrumental in the recruitment and retention of nurses. Apart from the empirical contributions to the field of employee satisfaction in the healthcare industry, this study will additionally contribute to the job satisfaction theory dilemma by introducing a consolidated instrument that focus on the external factors that can be intervene by managerial positions.

### **1.4 Aim of study**

The study aims to explore, analyze and identify the factors that affects job satisfaction among nurses working in the Emergency Departments in public hospitals in Sweden. In order to achieve a clear understanding, some determinants will be established through the literature review and by an exploratory quantitative analysis based on the information provided through a mixed questionnaire with demographic correlations among the factors. At the same time, the information resulting from this study will provide a clear vision of how to motivate and improve the job satisfaction among nurses by the managerial positions in the health care systems.

## 1.5 Research process and research questions

Together with a theoretical background, a quantitative method is carried out, through the implementation of an online survey/questionnaire in the attempt to examine the factors that influence the most in the nurses overall and facets of job satisfaction. The data collected for this study will cover the relationship between the work environment and personal demographic factors. This will form the employees' expectations in the workplace which will ultimately shape their job satisfaction. The questionnaire was aimed to reach a sample of 200 registered nurses in Sweden from public hospitals. Further, from the data collected, correlations between socio-demographics and the job satisfaction factors is computed. Descriptive statistic was also used to further analyze the results in order to answer the following research questions:

Q1- What is the current level of job satisfaction among nurses in the Emergency Department in Sweden?

Q2- Which are the main factors determining job satisfaction among nurses in the Emergency Department in Sweden?

Q3- To which extent the demographic groups (based on age, gender, level of education and number of children) are influencing a higher level of overall job satisfaction?

## 1.6 Delimitation

Moving forward in our study, the thesis will focus only on the ED's nurses overall job satisfaction and the factors that affect them. This study is carried out in Sweden, thus it comes with its generalizability limitations. The research is not aiming to be applicable to other countries or business context due to cultural differences on job satisfaction factors. Further, the study will only cover registered and specialist nurses, disregarding the assistant nurses that are working in the ED due to their different job scope and licenses, and consequently, their responsibilities. The research method is limited to quantitative analysis due to the availability of a large sample hence, more reliable field data can be obtained. Furthermore, this method was chosen in the attempt to create a statistical framework in answering the research questions. Even though there are high number of theories about job satisfaction, the

present research is only focused on three theories: Herzberg Two factor Theory, Hackman and Oldham Job Characteristics and Lawler-Porter Expectancy Theory. Since one of the purposes of the present study is to provide an understanding of the job satisfaction factors to help improve the situation from a managerial perspective, the focal point will be on external factors.

### **1.7 Outline of the thesis**

This master's thesis is structured in seven chapters. Chapter 1 will provide an introduction to the topic at hand. Chapter 2 will provide a theoretical framework through literature review as well as the definition and previous studies which will be referenced throughout the paper hence, forming a basis for this current study. Chapter 3 will present the methodology implemented in order to answer the research questions. Further, chapter 4 will outline the general results drawn from the instruments used and Chapter 5 will further analyse the data extracted and test the research hypothesis. Chapter 6 will discuss the final results, relate them to the current research and investigation around the topic. Finally, Chapter 7 will conclude the research by presenting each limitations and contributions.

## **2. THEORETICAL FRAMEWORK**

*In pursuance of a better understanding of the factors, determinants and indicators of job satisfaction among nurses working in the Emergency Department, a background of the job satisfaction studies is provided. In the first part of the chapter, the concept is defined and a review of several models and theories presented. Secondly, the main determinants of job satisfaction in a general perspective are identified to later narrow them down to those that affect specifically the healthcare industry. In order to present these factors, empirical evidence from late studies and recent research are displayed with special attention in studies conducted in Sweden. Finally, in order to show the links between the theoretical background and the empirical studies, main surveys and questionnaires are exposed, with special attention to those used to analyze job satisfaction among nurses.*

### **2.1 Job satisfaction**

The job satisfaction concept has been explored since the beginning of the century, being Hoppeck definition in 1935 one of the first attempt to describe it. During the years, several definitions has been manifested and has been evolving among different studies. An investigation conducted by Rafferty and Griffin (2009) has shown that the number of research about job satisfactions is more than 5500 yet, researchers do not agree in a globally accepted definition being a topic still debated (Aziri, 2011). The high degree of interest of this topic is reflected in areas such as psychological science (Cranny et al., 1992; Fisher, 2000; Landy, 1989; Locke, 1969, 1983), in organizational behavior and especially in business research where it is an essential factor for management in order to design work assignments (Spector, 1997). The application of these studies shares the dynamic nature of the subject that can change with the time and the individuals, as it is highly interactive and subjective in different situations and job positions.

#### **2.1.1 Definitions**

The literature around job satisfaction term definition is extensive and yet not totally categorized. Although job satisfaction definitions substantially differ, Liu et al. (2016, p. 84) identifies similar attributes related to job satisfaction among nurses literature, presenting three categories based on the “happiness or gratifying emotional responses towards working

conditions”, “fulfillment of desired needs within work settings” and “job value or equity”. This categorization can be related to the one offered by Locke (1969) dividing the components of job satisfaction by affective (value system), individual cognitive (perception about the facet of the job) and evaluative (relationship between the perception and the value system) reactions towards the job. Following this structure, most of the definitions provided by the researchers in the topic can be classified following the latter.

Traditionally, job satisfaction has been defined as the “affective orientations of individuals toward work roles that they are presently occupying” (Vroom, 1964). Several authors have built their definitions upon this affective reaction towards job based on internal and external factors. To this extend, Hoppock (1935, p.47) was one of the firsts to describe the concept as the “number of psychological, physiological, and environmental circumstances which leads a person to express satisfaction with their job”. Similarly, one of the most common definition is stated by Locke (1976, p.1300) representing it as a “pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences”. Some other definitions highlight these emotional feelings as the core of job satisfaction (Greenberg and Baron, 2008; George and Jones, 2008; Arnett, Laverie and McLane's, 2002; Robbins, 2005, p. 80; Hellriegel and Slocum, 1976), the happiness implied (Agho, Mueller and Price, 1993, p. 1007) or introduce it as an emotional reaction (Siegal and Lane, 1982; Lofquist and Davis, 1991; Robbins and Judge, 2007; George and Jones, 2008).

On the other side, another wave of studies has centered their definitions, not only around individual emotions and feelings from the job, but also on the achievements of their needs of fulfillment (Kaliski, 2007). Aziri (2008) considers job satisfaction as “a feeling that appears as a result of the perception that the job enables the material and psychological needs”. The well-known needs definition presented by the Theory of Needs of Maslow (1943) also highlights the importance of the self-actualisation. Some other factors of this theory will be presented and use in the next section of the chapter. Some researchers has approached this concept from the perspective of goal achievements stating that job satisfaction “generally means the fulfillment acquired by experiencing various job activities and rewards” (Shafiwu and Salakpi, 2013). The term is used to analyze outcomes already experienced by an employee. Thus, satisfaction is a consequence of rewards and punishments associated with past performance.

The past approaches of job satisfaction, as a need of fulfillment, has been explored with a special focus on the cognitive factors behind the positive attitude towards job. Furthermore, the Equity Theory (Adams, 1965) analyses the social connection between the behavioural response that cause job satisfaction. In this matter, Smith et al. (1969, p.6) uses the affective definition of job satisfaction by focusing on the causes that lies behind them being the “difference between what is expected from the job and what is actually experienced and comparing this difference to alternative jobs”. This evaluation of the expectations being met in the job are corroborated by Cranny, Smith and Stone (1992) and Price (2001).

Even though some studies presents job satisfaction as an individual and internal variable (Brief, 1998; Mullins, 2005), most of them recognize the importance of external factors in the overall job satisfaction and identified the concept as a response to these factors (Hoppock, 1935). At the same time, some researchers considered the two opposite attitudes towards job, described as "the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs" (Spector, 1997, p.2). Armstrong (2006) proposed the differentiation of satisfaction defined as a “positive and favorable attitude, where dissatisfaction is the indication of a negative and unfavorable attitude at work”. In addition, George and Jones (2008) points out the possibility of measuring this attitude by degree of job satisfaction. This argument is the base of the noteworthy study of Herzberg et al. (1959) defining job satisfaction and dissatisfaction in terms of motivator and hygiene factors. This theory will be explained in the next section of the chapter. The use of motivation is also cited by Statt (2004) who specifies intrinsic motivation and rewards as a fundamental part of job satisfaction.

Furthermore, job satisfactions is considered by Hackman and Oldham (1979) first, as dispositions learned through experience; second, as attitudes based on the individual perception of the workplace, colleagues and supervisors; and third, the level of fitting between the individuals characteristics and the job requirements.

### **2.1.2 Job satisfactions models and theories**

The literature related to the theories and models around job satisfaction can follow the same principles exposed previously in the definitions proposed: affective, cognitive and evaluative. In this regard, most of the theories builds upon one, two or the three of the job satisfaction components.



A systematic review conducted by I. Dugguh and Dennis (2014) emphasises the difficulty to categorise the totality of theories and models that exist. Furthermore, Luthans (2005) discusses the lack of integration between the totality of the theories. One possible approach is the one given by Shajahan and Shajahan (2004) where the theories can be classified by its nature between content and process theories. Content theories attempt to identify the needs that a job can fulfill, and which are the reasons behind these needs with a special focus on the affective and cognitive elements of job satisfaction. Following this categorization, some relevant content theories are represented by Maslow's Theory of Motivation (1943), Herzberg Two-Factor Theory (1959), Theory of Needs or Achievement Theory (David McClelland 1961) and ERG (Existence, Relatedness and Growth) Theory by Alderfer (1969).

On the other side, process theories approach the way these needs are fulfilled pointing the focus in the cognitive element and expectancy of job satisfaction. Process theories can be reflected by the Equity Theory (Adams, 1963), Vroom's Expectancy Theory (1964), Porter Expectancy Model (1968), Goal setting Theory (Locke, 1969) and Job Characteristics Theory by Hackman and Oldham (1975). Furthermore, these theories can be similarly identified in three groups presented by Adams and Bond (2000), classifying them as discrepancy theories that examines the extent of needs satisfied in the job, equity theories pointing out the contrast between evaluation of job rewards; and expectancy theories with a focal point on employee motivations.

The psychological school of needs is exemplified by Maslow and Herzberg being a popular theory to explain job satisfaction among nurses as in the study carried out by Holmberg (2016). The main premise of the Two-Factor Theory, also called Motivation and Hygiene Factors Theory (Herzberg, 1959), is the differentiation between motivators (intrinsic factors) that enhance job satisfaction and the hygiene factors (extrinsic) that origins dissatisfaction. The hierarchy of needs proposed by Maslow (1954) identifies five elementary needs that creates motivation among the individual: physiological, safety, belongingness, esteem and self-actualization. While job satisfaction is not the most fundamental need (physiological) according to the hierarchy, the presence of it is more related to higher needs such as sense of safety (job security, retirement benefits), belongingness (social interaction with colleagues, superiors and feel part of the organization) and esteem (feeling their job as valuable), which will ultimately lead to self-actualization (contentment and personal growth).

The traditional view of job satisfaction theories is characterized by the exposure of feelings and emotional responses towards one's job and can be explained by the work of Spector (1997) with the Range of Affect Theory (Discrepancy theory). This theory suggests that satisfaction is determined by the discrepancy between the value of contributions of an individual and the value of what the job provides back, determining the degree of satisfaction by the level of expectations met. Another way of describing job satisfaction, by only analysing individual factors, is the dispositional theory (Staw and Ross, 1985) that measures personal characteristics to explain individual attitudes and behaviour. Building on this theory, the five factors model of dispositional personality: Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience focuses on characteristics of thinking, behaving, and feeling.

Taking into account the managerial perspective of the current study, three theories are selected to assist the development of the research. The application of these theories form the base of the methodology, the analysis and the discussion. In this way, the use of these theories is explored in more detail.

First, the Two Factors Theory provides a base for the study from the content point of view, by understanding the nature of the needs in the workplace. Second, the Job Characteristics Theory considers the process of how the needs are met and how the task itself is an instrument to achieve job satisfaction. Third, in order to address managerial issues and improve the job satisfaction among employees, the Lawler-Porter Expectancy Model (1968) is selected. This theory is also helpful to further stress the importance of the internal and external rewards based on the current effort, performance and satisfaction. Regarding the organizational purpose of the present study, its methodology is based both in the process and content theories. In order to understand the whole phenomenon, a special consideration of the external factors is further stressed to give the possibility for the administration to develop a better work environment and improve work conditions.

## **2.2 Determinants of job satisfaction in general**

Numerous studies have grouped the factors that leads to job satisfaction of workers to be influenced by both internal and external (Lu et al. 2007; Ciarniene and Vienazindiene 2009).

These factors are further explored through four different dimensions: personal; job characteristic; environmental and organizational factors.

The first aspect is the personal dimension, where a study by Fisher (2000) found that workers' positive and negative moods are unique contributors to overall job satisfaction which will consequently affect job attitude. Further, other emotional responses such as job involvement (Chu et al., 2003), psychological distress (Siu, 2002), organizational or professional commitment (Lu et al. 2007) and job motivation (Bégat et al. 2005) has also been subjects of studies. On the other hand, Jex (2002) argues that internal disposition is the foundation of job satisfaction and this factor plays a role regardless the organizational environment or the nature of the job itself. This is supported by a study by Arvey et al (1989), who further explored the individual factor, specifically the role of genetics in job satisfaction and found that 30% variance in respect to job satisfaction of identical twins who are raised apart, was driven by genetic factor. Porter and Lawler (1968) made an extension of Vroom's Expectancy Theory (1964) where they explored the role of motivation, performance and satisfaction. Porter and Lawler found the link between effort-performance and the perception of outcome where a worker's satisfaction is directly influenced by the reward, be it intrinsically or extrinsically. Thus, intrinsic motivators such as positive feeling, sense of achievement and altruism that a worker obtain from their job would affect their job satisfaction. Other than that, a research by Ganzach (1998) found that, across jobs, there is a positive correlation between intelligence and job satisfaction. However, this is moderated by an external factor, that is the complexity of the job itself.

On the other hand, the external factors are also explored, for example, based on Hackman and Oldham model of Job Characteristic, it is stated that the task itself is instrumental in workers' job satisfaction. Based on the theory, employees need to feel that their work has significance and meaning, sense of autonomy of the outcome of their effort as well as knowing the result of the work they deliver (Hackman and Oldham, 1976). Environmental factors such as working environment (Aiken et al., 2008), structural, psychological and social empowerment (Casey et al. 2010) also plays a role in employee job satisfaction as these factors are instrumental in motivating employees. The environmental factor is aligned with Adams' Equity Theory (1965) where fair treatments between employees in respect to their input and perceived outcome is crucial in maintaining their motivation and consequently, their job satisfaction. Organizational factors that includes working condition, leadership style,

compensation, relationship with the co-workers and career-advancement opportunity (Smith et al. 1969) also has a direct impact to employee satisfaction. Price and Reichert (2017) studied the link between continuing professional development and career satisfaction in nurses, in which early-career nurses regarded training crucial in facilitating career transition whereas late-career nurses help in lifelong learning and maintaining competency. However, both new and late-career nurses agree that continuous education helps them in career advancement and ladder. Further, compensation and career advancement opportunity are not only contributory in satisfying employees' hygienic needs (Herzberg, 1964), but it has also the capability in fulfilling higher level needs as it has the capability to increase one's social status. On the other hand, working condition such as safety, working hours and vacation mostly fall under the hygiene factor (Herzberg 1964) that without it, it would cause employees' dissatisfaction. Further, a research by Andrews et al. (2012) found that transformational leadership promotes employees' excellence and is a critical factor in employee retention. Circling back to Porter and Lawler's expectancy model (1968) as previously mentioned, extrinsic reward that is moderated by organizational factors such as annual bonus, salary increment, and career advancement opportunity also play a crucial role in employees' satisfaction.

### **2.2.1 Determinants of job satisfaction and dissatisfaction in the healthcare industry**

Now focusing on the healthcare industry, personal factors such as demographic, cultural background and personal goals have also been contributing factors towards job satisfaction in nurses (McNeese-Smith, 1999). Demographic variable such as marital status and existence of children affect the way the nurses view their job due to their existing commitment at home. Further, based on data from the World Health Organization (WHO) (2010) there are currently around 7.3 million nurses and midwives in the European region and this figure is inadequate to accommodate the growing population. Hence, the feeling of being overwhelmed by the patient-care load would continue to be the source of job dissatisfaction in nurses if this issue is not addressed. A quantitative study conducted by Bjork et al. (2007) found that nurses attributed their job satisfaction in the order of social interaction, pay and work autonomy to be the most crucial factors. These attributes are aligned with the aforementioned Hackman and Oldham's Job Characteristic model (1976) and hygiene factor (Herzberg, 1964) as these factors are instrumental in employee's job satisfaction. The job structure of nursing allows

them to be autonomous and provide the opportunity for independent thinking as they are the central element of patient care as the physicians move around (McNeese-Smith, 1999). Thus, due to its significance and meaning, this task design also affects the overall job satisfaction. Hence, some studies have been done to explore the reason behind the calling to nursing, particularly in respect to intrinsic motivation (to some extent a religious component), fulfilment of purpose in life as well as altruism (McNeese-Smith, 1999; Carter, 2014; Emerson, 2017). On the other hand, feeling that they have been unjustly treated in the aspect of patient assignments, promotion of nurses they deemed unqualified and wage differences between different division, were one of the main sources of organizational factors of job dissatisfaction (McNeese-Smith, 1999).

Based on a study conducted by McNeese-Smith (1999), some of the contributing factors for job dissatisfactions are feeling overloaded, interference with patient care such as bad patient outcome and receiving verbal abuse, co-workers who do not provide diligent care as well as situations that they feel they have been treated unjustly. While these factors are mainly contributed by external factors, internal factors also play a role in determining job satisfaction in nurses as it is not mutually exclusive, but mutually supportive.

### **2.3 Measure of job satisfaction**

Due to its importance, various instruments have been developed over the years to quantify and conceptualize job satisfaction. These instruments were developed to capture the entirety of various aspects of job satisfaction be it personal, organizational, environmental and job characteristic and, according to Saane et al. (2003) there is no superior standard that would indicate which aspect has a higher relevance than the others.

Some of these instruments are designed to measure general job satisfaction regardless the industry, whereas some are tailored to specifically address the factors in a specific industry. For example, the Job in General Scale (JIG) is a scale that is used in various industry is constructed through the combination of Job Descriptive Index (JDI) facets such as work itself, pay, promotion, supervision, and co-workers (Fields, 2002; Ironson et al., 1989). Through the JDI, the respondent was given three choices to respond to the questions, whether they agree, disagree or not sure.

Further, another instrument is the Job Satisfaction Scale (JSS), developed by Schriesheim and Tsui (1980) which is originally intended for the public, non-profit organization (Fields, 2002). The JSS was developed through nine facets: pay, promotion, supervision, benefits, contingent rewards, operating procedure, coworkers, nature of work and communication (Spector, 1985). Another instrument that is widely used is the Minnesota Satisfaction Questionnaire (MSQ) developed by Weiss et al. (1967) where 20 items/variables are used (Hirschfeld, 2000). The MSQ evaluates the fit between both side of the spectrum that is the internal (individual skills) and also the external (work environment) factors (Weiss et al., 1967).

### **2.3.1 Measure of job satisfaction in the healthcare industry**

The McCloskey/Mueller Satisfaction Scale (MMSS) is specifically designed for nurses where a 5- point Likert scale was used to answer a set of questionnaires that ranges from ‘very satisfied’ (1) to ‘very dissatisfied’ (5) (McCloskey and Mueller, 1990). Factors that are weighted by the MMSS are the extrinsic reward from the job; scheduling satisfaction; family/work balance; co-workers; interaction; professional opportunities; praise/recognition; and control/responsibility (Saane et al., 2003). Similarly, the Nurse Satisfaction Scale (NSS) was developed to measure nurses’ job satisfaction with seven factors: administration, co-workers, career, patient care, relation with supervisor, nursing education and communication (Saane et al., 2003). Like the MMSS, the NSS also uses a Likert scale to measure responses but it varies from ‘Strongly Agree’ (1) to ‘Strongly Disagree’ (7). Another tool that is widely used in measuring job satisfaction of nurses is the Index of Work Satisfaction (IWS) developed by Stamps (1997) (Bjørk et al. 2007; Cortese et al. 2010; Cowin et al. 2008 and Curtis, 2007). The questionnaire is divided into two parts and uses six variables to quantify nurses satisfaction: pay, autonomy, task requirements, organizational policies, professional status and interaction (Curtis and Glacken, 2014). For the first part, each of the six variables are first compared to each other and the respondent would select which one is the most important to them, whereas on the second part, a Likert scale was used to measure the respondent’s job satisfaction (Curtis and Glacken, 2014). Another widely used instrument is The Revised Nursing Work Index (NWI-R) (Aiken and Patrician, 2000) which is an extension of the NWI that is originally developed by Kramer and Hafner (1989). There are three dimensions to this 4-points Likert-scale which are the nurse-physician relation, nurse management (unit level) and the hospital management and support (Van Bogaert et al. 2013).

All of these instruments share a common denominator when measuring job satisfaction by including the external and internal underlying factors that are affecting the nurses.

#### **2.4 Job characteristics of the Emergency Department in Sweden**

In pursuance of a better understanding of the reasons behind job satisfaction, the situation and characteristics of the job itself must be overviewed. One of the most important differences between the Emergency Department and other hospital departments is the type of patient that is treated. According to The National Board of Health (2013), “the ED should be reserved for urgent care”. However, Norberg et al. (2015) pointed out the difficulty to find a general agreement to differentiate urgent from non-urgent care, thus, originating the triage activity to decide the order of treatment. The importance, accuracy and effectivity of the triage decisions have been broadly studied (Thassanee et al., 2018). This type of activity in the daily work in Emergency Department can be a source of stress and wrong decisions can lead to bad patient care. Another current problem related is the scarcity of nurses in ED, and according to OECD (2017), specialist nurses are lacking and new graduates with specialty training and advanced degree has fallen since 2005, hampering the efficiency of the hospitals. Despite the lack of nurses, visits to the ED in Sweden has increased sharply over the years, where in 2014, there is approximately 2.5 million visits (Inspektionen för vård och omsorg, 2015).

#### **2.5 Determinants and effects of job satisfaction in the Emergency Department**

Understanding job satisfaction of nurses in the ED is crucial due to its position as the initial respondent for any acute cases in the hospital, thus the performance of personnel in this department will ultimately affect the performance of other departments in the hospital (Zohoor and Zadeh, 2003). According to Shin and Lee (2016), there is a positive correlation between the increase in job satisfaction and the quality of care of patients. As the cases that nurses in ED had to face on daily basis are often severe and acute, quality of care is crucial in performing their duties. The quality of service on this department will consequently influence the patient’s perception and satisfaction of service in other departments in the hospital as it is one of the most important service indicators of health delivery (Jennings et al. 2015). On the other hand, there is a negative correlation between job satisfaction and employee turnover (Karin et al., 2002). Hence, in a crucial, first line department of patient care, such as the ED,

job satisfaction is important to retain the nurses as well as attracting new recruits thus, outlining the implications that the management can have if this issues are not addressed.

A study carried by Wahlin I. et al. (2010) concludes that in order to increase the experience of empowerment by nurses working in the intensive care units, it is important to establish a good working atmosphere and teamwork together with feelings of doing good improved knowledge and skills.

## **2.6 Literature review summary**

As previously mentioned, even though the definition for job satisfaction is broad, this study will be based on Hoppock's (1935) definition of job satisfaction as the "number of psychological, physiological, and environmental circumstances which leads a person to express satisfaction with their job" due to its overarching principle as it covers external and internal factors.

The theories that are selected to guide the present research are the Herzberg's Two Factors Theory (1959), Porter and Lawler's Expectancy Theory (1968) and Hackman and Oldham's Job Characteristics Theory (1975). This is in order to understand which the factors are implied and how can be develop a suitable and relevant measure to expose the inner factors in job satisfaction among nurses in the Emergency Department.

After exploring previous studies, four main dimensions to job satisfaction were found. These dimensions, which are personal, job characteristics, work environment and organizational factors, have been commonly explored. These factors are the cornerstone of the three theories that will be used as a framework for this thesis (Figure 2. Theoretical Framework).





**Figure 2 : Theoretical Framework**

### **2.6.1 Hypothesis formulation**

After analyzing the main determinants that affects job satisfaction among nurses, the current study aims to test the following hypothesis:

Hypothesis 1: The current level of job satisfaction among nurses in the ED is low (under 3 on a scale of 5).

Hypothesis 1.1: The perceived level of job satisfaction among the nurses is higher than the aggregated value of overall job satisfaction (based on the eight factors of job satisfaction outlined).

Hypothesis 2: Extrinsic rewards are the most influencing factors in job satisfaction among nurses in the ED.

Hypothesis 3: Demographic factors are a strong predictor of overall level of job satisfaction.

Hypothesis 3.1 Female nurses have a higher job satisfaction (above 3 on a scale of 5).

Hypothesis 3.2 Older nurses (aged between 51 to 65) have a lower job satisfaction (under 3 on a scale of 5).

Hypothesis 3.3 Nurses with high level of education (MSc and/or PhD) have a higher job satisfaction (above 3 on a scale of 5).

Hypothesis 3.4 Nurses without children have a higher job satisfaction (above 3 on a scale of 5).

### **3 METHODOLOGY**

*In order to provide an examination of the research process, this chapter outlines the procedure and methodology of the present study. First, the chosen method used to analyze the research questions and hypothesis is presented accompanied of the reasons behind its selection and the scope of the whole process, together with the practical use of the theoretical framework. Second, the study design is introduced exposing the different parts of the questionnaire and an explanation of the population and selected sample. To continue, the process of data collection and ethical issues is included. Finally, an overview of the gathered data is analysed, the reliability of the results is tested, and a critical consideration is drawn.*

#### **3.1 Research strategy and use of the theory**

In understanding factors that affect job satisfaction in nurses, the research is driven by three theories framework which are Herzberg's Two-Factor Theory (1964), Hackman and Oldham's Job Characteristic Theory (1975) and Porter and Lawler's Expectancy Model (1968). These theories provide an overarching view of what drives job satisfaction and dissatisfaction in workers that are fundamentally driven by internal and external factors. These factors can be further grouped into four facets, which are: job characteristic, personal, environmental and organizational factors. Special consideration is given to the job characteristics, environmental and organizational factors as this study is mainly focusing on the managerial perspective and implications of these factors to it. With these theories and facets in mind, the questionnaire was constructed, through the combination of various available questionnaires which are commonly used in measuring job satisfaction such as Job in General Scale (JIG), Job Satisfaction Scale (JSS), McCloskey/Mueller Satisfaction Scale (MMSS), Nurse Satisfaction Scale (NSS) and Revised Nursing Work Index (NWI-R). Further, once the data was gathered from the respondents, the theory was used as a framework in analyzing it, in the pursuit of answering the research questions through validating or invalidating the study's initial hypothesis.

## **3.2 Research method: Quantitative**

### **3.2.1 Motive of choice of method**

The reason behind using exclusively a quantitative method is the provision of highly accurate and numerical data. This quantitative approach enables the possibility to analyze the correlation between the socio-demographic data, job satisfaction factors and overall job satisfaction. The quantitative method selected is an inferential survey applied through a questionnaire in order to “establish relationships between variables” (Easterby-Smith et al., 2015) and identify the dependent and independent variables. In order to examine the interaction between the variables, the independent variable is established as the demographic data (age, gender, education level and number of children) and the dependent variable is the job satisfaction exposed in each factor.

The present survey is a self-constructed method, based on theories and largely used questionnaires, that facilitates the investigation of the present research questions and proves the hypothesis. The main advantages of using an online questionnaire are the high flexibility for the participants to answer, the accessibility to a large sample, the ease of collecting data and the ensured anonymity and independence of a possible researcher bias. On the other side, some disadvantages might affect the research such as the low response rate (Easterby-Smith et al., 2015).

### **3.3 Study design and sampling**

A descriptive survey was conducted between April and May 2018. The population comprises of all nurses working in the ED in Sweden, taking into account that there are 71 Public hospitals (Socialstyrelsen, 2015) with Emergency Department. The specific number of nurses working in these facilities change due to the variability of available nurses, working shifts and the external services provided by private nurses. Further, the size and organizational schedule differs from one ED to another, thus, the total number of population is unknown. The inclusion criteria to select the sample was the following: currently employed nurses or specialty nurse who work part or full time in the ED. The sample employed was taken from 54 hospitals out of 71 that provide facilities for Acute Care in the Emergency Department. First, emergency department managers of hospitals in Malmö, Lund, Linköping and

Gothenburg were contacted via email and phone in order to distribute the survey to the nurses working in their teams. In addition, the link to the survey was published on a social media channel with more than 42,000 members that work in the healthcare industry as nurses. The post specifies how to fulfil the criteria to answer the questionnaire, being only allowed registered nurses who are working in the Emergency Department.

Data were collected by self-completion from a structured and anonymous questionnaire. The administration of the questionnaire was performed via internet/mail after explicit permission was given by Verksamhetschef (Chief Nurse) to distribute study information and the online link of the survey by closed emailing list. The average time to complete the survey was around 5 minutes. The short length of the questionnaire is considered a positive factor that would influence the response rate among the participants, taking into account the busy nature of the studied population.

### **3.3.1 Survey Construction**

Through the literature review, it is found that generally, factors of job satisfaction fall under four dimensions, which are personal; job characteristics; environmental and organizational perspectives. Through these dimensions, the available job satisfaction instruments such as the Job in General Scale (JIG), Job Satisfaction Scale (JSS), McCloskey/Mueller Satisfaction Scale (MMSS), Nurse Satisfaction Scale (NSS) and Revised Nursing Work Index (NWI-R) were analysed and relevant elements that are aligned with our research objective were studied and included in a questionnaire that was ultimately sent out to the respondents. Through the four dimensions of job satisfaction factors explored in the literature review, the ultimate questionnaire was grouped into eight sections which are: extrinsic rewards; career development opportunities; working itself; resources; schedule; autonomy; relationship with management and social communication (as seen in Figure 3. Job satisfaction factors). The most mentioned items within the questionnaires were selected, obtaining the eight mentioned sections by grouping the type of questions available in the questionnaire according to relevant topic.



**Figure 3: Job satisfaction factors**

Further, the questionnaire was designed by utilizing 5-points Likert Scale, where items was recorded from 1 (not satisfied at all) to 5 (very satisfied). The first part of the survey is composed by socio-demographic data of the respondents. This information is gathered through items such as age, gender, level of education and number of years working in the ED, among others. These data will be analysed to answer the third question of the research as well as providing better information of the respondents. It is important to consider the sensitivity of certain personal items such as wages, marital status or number of dependents/children would affect the willingness of the respondents to honestly answer these questions.

### **3.3.2 Data collection**

With the permission of nursing directors of the hospitals, each participant was given a set of questionnaires with an invitation letter of the study containing some information about the study such as the purpose, procedure and the significance. Participants were asked for agreement and consent of anonymity. The survey was conducted using Survey Monkey, due to the ease of usage, gratuity of the tool and the high range of possibilities to tailor any kind of study. After two reminders, 247 questionnaires were returned and of which, 210 were

completed, yielding to an average of completion rate of 85%. The other 37 responses that are incomplete, were not taken into account during the analysis of data.

The survey was first written and designed in English, before it was translated into Swedish to better accommodate the respondents, of which their main language is Swedish. A pilot test of the questionnaire was conducted involving 3 respondents under the targeted population in order to ensure that the study and questionnaire was easily understood and clear. Further, through this pilot study, the questionnaire was later adjusted to fit the context and job characteristics of the target respondents, and this is done based on the feedback of the respondents of the pilot study.

### **3.3.3 Ethical Consideration**

An information sheet, sent together with the questionnaire, clarified that the participation was anonymous and voluntary, in order to avoid bias and dishonest answers caused by a possible managerial intervention. The academical usage of the data extracted and its form of publication was also communicated in the same sheet. The individual answers will not be directly shown to the respective managers, in order to protect confidentiality of the respondents. This is assured by the online survey medium, Survey Monkey, used which restricts the visibility of data to the researchers.

## **3.4 Analysis of survey data**

To analyze the data collected, statistical tests have been conducted in the attempt to answer the research question, thus consequently testing the hypothesis. The first test would be the normality test, which is conducted to ensure that the data collected is reliable for the study. There are various tests that can be carried out to test the normality of data of a univariate study and this can be divided into the graphical method and the numerical method (Park, 2002). For this study, a numerical method has been chosen to test the normality of data, of which the Shapiro-Wilk (1965) test were used, where the calculated p-value is compared to 0.05 that would indicate if it falls under or above the 95% confidence level that the data is normally distributed.

After ensuring the data are normally distributed, a descriptive analysis was carried out to study the variables, especially the demographic data. This analysis, together with graphic analysis, summary of data such as the average age of respondent, ratio of male to female, and experience in healthcare can easily be seen. The data's mode, median and mean shows the central tendency of the variable thus help in drawing a modest conclusion of the data without being misleading.

On the other hand, to further analyze the data, correlation tests have been conducted to the variables and Spearman's Rho or correlation coefficient has been calculated to measure the strength of association between variables. This test will result in an R-value, where  $r = 1$  shows complete positive correlation, whereas  $r = -1$  shows complete negative correlation. This is highly instrumental in the attempt of testing the hypothesis, especially H3.

### **3.5 Critical reflection of used methodology**

This section will outline the strengths and weaknesses of the method employed. The use of a quantitative method was driven by the purpose of the present study to find answers to the proposed research questions. This purpose has been successfully fulfilled by the used methodology but has its own limitations. The analysis of this phenomena would have been more thorough by implementing a mixed methodology, by adding a qualitative study. This would have contributed to the incorporation of a more precise definition the characteristics and factors that best describes the job satisfaction of nurses in the Emergency Departments in Swedish hospitals. Apart from this matter, the quantitative method utilized proves to be accurate and the factors that conforms the job satisfaction are internally valid.

Another factor that has affected the nature and results of this study is the limitation on the time frame to develop the investigation. Therefore, a cross-sectional research was selected where the data was collected in a certain point on time (May, 2011). In order to add a stability on the results of this study, further research would be required, applying the same method on different occasions.

#### **3.5.1 Reliability**



In order to check the reliability of each of the eight categories of the present questionnaire (extrinsic, development, resources, work itself, schedule, autonomy, social communication and relationship with management), a Cronbach's Alpha test was pursued (Table 1. Reliability Test for job satisfaction). The internal consistency found between the adjusted eight categories of the job satisfaction scale has a high internal reliability, obtaining a Cronbach's alpha coefficient of 0.87 (Table 2. Reliability Test for job satisfaction factors). Nunnally and Bernstein (1994) state that for newly constructed scales the minimum Cronbach's Alpha value to be considered acceptable is 0.70. Therefore, the current value is considered as a strong indicator of reliability.

### **3.5.2 Validity**

Survey designs are enlightened by internal realist ontology (Easterby-Smith, 2015). Therefore, the accuracy of the instrument is a critical factor. In this concern, some evaluations of the data collected are addressed considering the following aspects as proposed by Yin (2014): construct validity; internal validity; external validity; and reliability. The construct validity of this research is supported using three theories and broadly used instruments that measures job satisfaction, showing a consistency between the empirical results and theoretical literature. This framework also supports the precision to describe the subject of job satisfaction in the self-made questionnaire, covering the main factors exposed by the theory. Further, content validity can be corroborated by how the items included complies the test purpose and its specification. A threat to external validity can be observed on the possibility of other factors influences that has not been covered by the survey and that could represent remarkable changes in the final results. The end results might not be external valid due to the special nature of the Swedish context, as the cultural factors plays a decisive role in the final results. Thus, this study can be replicable, but its results cannot be generalizable for other countries. Concerning internal validity, some bias can be discussed such as the circumstances in which the respondents were answering the survey. Due to the impersonal format of the survey it should be noted that some of the respondents might not be likely to share sensitive thus it could distort the validity of the data.

## 4 RESULTS

*To accomplish the aim of the present study of analysing the current level, factors and socio-demographic influences of job satisfaction, a quantitative method based on an online self-completion survey was implemented. This chapter shows the general results presenting both demographic and job satisfaction data derived from the questionnaire. Furthermore, a normality test was carried out.*

In order to emphasize the aim of the analysis of the aforementioned results, the research questions (Q1, Q2 and Q3) formulation are recalled:

Q1- What is the current level of job satisfaction among nurses in the Emergency Department in Sweden?

Q2- Which are the main factors determining job satisfaction among nurses in the Emergency Department in Sweden?

Q3- To which extent the demographic groups (based on age, gender, level of education and number of children) are influencing a higher level of overall job satisfaction?

### 4.1 General results

In order to provide an overview of the general results, the main outcomes will be presented. As mentioned in the methodology chapter, the survey was structured in two main blocks depending on its purpose. The first part of the questionnaire was based on demographic purposes in order to provide a description of the sample as well as developing correlation between factors to answer Hypothesis 3. On the other hand, the second part was oriented to provide data related to both the overall and factor specific job satisfaction of the respondents. Thereupon, a disclosure of the main results of both parts will be presented.

#### 4.1.1 Demographics section

The online survey was published from 9th May 2018 and closed on 20th May 2018. The total number of respondents was 247 with a total of 210 completed answers. The results extracted for analysis were based on the completed questionnaires and 37 uncompleted survey answers

were disregarded. The first section of the questionnaire collects the respondents' demographic data to understand the sample as well as to draw correlation on some of the demographic factors and the eight job satisfaction factors covered on the second part of the questionnaire.

Out of the 210 selected respondents, 80% were women and 20% were men (see Figure 3. Survey Demographics). This is in line with the general statistics provided by Statistic Sweden in 2016 where it is reported that the nursing profession is one of the most female-dominated industry with the gender distribution of female to male of 93% and 7% respectively. Further, respondents are generally young, as most of them are between 20 – 40 years that account for approximately 71% of the total respondents. While Statistics Sweden reported in 2017 that qualified nurses in Sweden in 2014 are mostly between 40 - 59 years old, the data collected for this study is not representative of this figure. It is also noted that due to the nature and medium used for this study that relies online survey and social media, thus it is more inclined to younger respondents. Most of the respondents of the study are cohabitating with someone, that accounts for approximately 71%, whether through a marriage (31.98%) or through Sambo relationship (39.27%). On the other hand, most of the respondents does not have any dependents in a form of a child, as 46.15% has no children. For the respondents that have children, majority have more than 1 child, where 22.67% respondents have two and 16.6% have more than 2.

In terms of training and education, the respondents are well trained and experienced, as approximately 97% of the total respondents at least holds a bachelor's degree, which is aligned with a study done by Statistics Sweden (2017). Further, 61% of the total respondents has more than 4 years' experience working in healthcare industry. Meanwhile, out of this figure, only 37% has been in the ED for more than four years, as majority of the respondents are new to the ED, 39% have been in the department for 1 to 4 years, and 24% have only been in the ED for less than a year. 73% of the total respondents are Specialist Nurses, thus highly trained in a particular specialization and the other 27% are general nurses. This further shows that nurses in the ED are highly qualified due to the intensity and criticality of their position. Another background characteristic of ED that was collected is the number of hours spent per shift and type of employment where most of the respondents are working for eight hours per shift (70%) and are permanently employed by the hospital (92%). Even though 61% of the respondents have more than 4 years' experience of working in healthcare

industry, 55% of the respondents earn between 20,000 and 30,000 SEK per month and 39% earn between 30,000 and 40,000 SEK.

Gender	Male (19.84%)	Female (80.16%)			
Age	20 – 30 (38.46%)	31 – 40 (32.79%)	41 – 50 (15.79%)	51 – 60 (9.31%)	61 – 65 (3.64%)
Relationship Status	Married (31.98%)	Single (25.51%)	Divorced (3.24%)	Sambo (39.27%)	
Number of children	0 (46.15%)	1 (14.57%)	2 (22.67%)	More than 2 (16.6%)	
Level of education	Bachelor's (97%)		Master's (2.43%)	Doctorate (0.4%)	
Employment type	Employed by the hour (2.83%)	Substitute (temporary) (2.43%)	Permanent (91.5%)	Private Staffing (3.24%)	
Experience in Healthcare	Less than 1 year (4.86%)	1 – 4 years (34.01%)	More than 4 years (61.13%)		
Experience in ED	Less than 1 year (23.89%)	1 – 4 years (38.87%)	More than 4 years (37.25%)		
Working time per shift	Less than 8 hours (5.26%)	8 hours (69.64%)	10 hours (23.48%)	12 hours (0.81%)	More than 12 hours (0.81%)
Rank	Specialist Nurse (73.28%)		General Nurse (26.72%)		
Salary	Less than 20,000 SEK (0.81%)	20,000 – 30,000 SEK (55.47%)	30,000 – 40,000 SEK (38.87%)	More than 40,000 SEK (3.64%)	Choose not to disclose (1.21%)

**Table 3: Survey demographics**

### 4.1.2 Job satisfaction section

The first question of the second part of the survey represents the overall perceived job satisfaction and aims to show the difference in job satisfaction scores before and after been presented to the several determinants that composes job satisfaction. Thus, to the question “How overall satisfied are you with your job?” more than half of the sample stated that they are satisfied or very satisfied (60%) in front of a group of very satisfied and not at all satisfied of 13% (see Table 5. Means of job satisfaction survey section).

The second part of the questionnaire was based on 37 items about the satisfaction on specific job-related factors. The study reports an overall satisfaction of 2.65 (as seen in Figure 4. Histogram of overall job satisfaction), a relative low score. This value will be further analysed in Hypothesis 1.

From a general point of view (see Table 4. Rank means per subcategory), the highest rate of satisfaction can be observed in the items under the “Social Communication” category such as the communication with coworkers (3.70), the communication with physicians (3.60), the opportunities for social contact at work (3.38) and how the conflicts between colleagues are resolved (3.31). On the other hand, the lowest rate of satisfaction can be observed in the following items: the opportunity to influence organizational decision making (1.91), followed by the dissatisfaction with the number of nurses available to provide quality patient care (1.95), low scores are observed as well for compensations for working on weekends (1.96), compensations for working on nights/evenings (1.95) and measurement of nurse satisfaction (2.00).

Determinants of job satisfaction	Mean	Average
<b>EXTRINSIC REWARDS</b>		
Salary	2.35	2.09
Compensation when working on the weekends	1.96	
Compensations working nights/evenings	1.95	

<b>DEVELOPMENT</b>		
Promotion opportunities	2.38	2.83
Level of introductory training	3.09	
Level of training in use of new equipment	3.07	
Support for continuing training	2.97	
Support to pursue higher education (change in schedule, salary during studies)	2.66	
<b>RESOURCES</b>		
Ability to perform good patient care tasks	2.47	2.75
Hospital facilities	2.64	
Medical equipment is updated regularly	3.20	
Enough nurses on staff to provide quality patient care	1.95	
Work with clinically competent nurses	3.02	
The overall medical care delivery is high quality	3.27	
Adequate support services	2.73	
<b>WORK ITSELF</b>		
Intensity of Workload	2.27	2.56
Daily Routine in general	2.96	
Enough time and opportunities to discuss patient care problems with other nurses	2.44	
Break during my shift	2.70	
Policies and compensation for overtime	2.44	
<b>SCHEDULE</b>		
Flexibility to take vacation	2.44	2.61
Flexibility in scheduling working hours	2.96	
Weekends off per month	2.46	
Life-work balance	2.59	
<b>AUTONOMY</b>		
Opportunity to influence organizational decision making	1.91	2.44
Freedom to make their own decision regarding patient care and work	2.97	
<b>SOCIAL COMMUNICATION</b>		

Communication with coworkers (nurses, assistant nurses) in your department	3.70	3.20
Communication with physicians	3.60	
Conflicts between colleagues are easily resolved	3.31	
Routines exists to solve conflicts between colleagues	2.60	
Opportunities for social contact at work	3.38	
Professional interaction between other departments	2.58	
<b>MANAGEMENT</b>		
Competence of your manager	3.13	2.70
Communication with your manager	3.18	
Opportunity to get in contact with management for questions and opinions	2.72	
Encouragement and positive feedback	2.45	
Nurse satisfaction is measured and addressed	2.00	
<b>OVERALL SATISFACTION</b>		2.65

**Table 5: Means of job satisfaction survey**

#### 4.2 Normality tests

Normality test is important as relying on data that defy the test would make the interpretation and conclusion drawn from it to be invalid (Park, 2008). Hence, the Shapiro-Wilk test is done to ensure that the random sample from the study comes from normal distribution. The test resulted in a p-value of 0.772 (see Table 6. Normality Test: Shapiro-Wilk) which is higher than 0.05 shows that it passes the normality test. Passing the normality test proves with 95% confidence that the data does fit the normal distribution (Shapiro and Wilk, 1965). This test was done on the overall average of job satisfaction and calculated through the derivation of eight facets of job satisfaction factors (through question 14 - 50).

## 5 ANALYSIS

*In this chapter, the three research questions (Q1, Q2 and Q3) are approached by a presentation and a analysis of the data derived from the quantitative method used. After selecting the appropriate test to analyse the data and apply them, the outcomes will be analysed based on the division of hypothesis to further test the hypothesis (H1, H2 and H3) validity.*

### 5.1 Overall job satisfaction

The first hypothesis to test concerns the current level of job satisfaction among nurses in the Emergency Department in Sweden. In the attempt to answer the main hypothesis, hypothesis 1.1 was initially tested. To answer the sub hypothesis “Is the perceived job satisfaction level higher than the sum of the scores of job satisfaction determinants?”, the respondents were initially asked, how satisfied are they with their current job. Like other questions in the questionnaire, has a range of results was scaled from 1 (not satisfied at all) to 5 (very satisfied). An average score of 3.519 was obtained from this question with a median of 4 and a standard deviation of 0.934 (as seen in Figure 5. Histogram of perceived job satisfaction).

Afterwards, 37 questions covering the eight factors of job satisfaction (Development, Extrinsic Reward, Resources, Work Itself, Schedule, Autonomy, Management and Social Communication) were presented to the respondents where they have a chance to evaluate their level of satisfaction. Through these questions, the respondents have an opportunity to evaluate their level of satisfaction of all the aforementioned factors and rank their satisfaction. The average of the score of their responses were later calculated to obtain the actual overall job satisfaction level of the respondents. As a result, an average score of 2.648 was obtained with a median of 2.636 and a standard deviation of 0.562.

As seen in general results, the mean of perceived job satisfaction is considerably higher (3.52) than for the grouped overall job satisfaction (2.54) (as seen in Figure 6. Chart of overall job satisfaction and Figure 7. Chart of perceived job satisfaction). This implies that nurses perceive their job satisfaction higher before examining the determinants. Through this analysis, Hypothesis 1.1 is accepted, where it passes the test positively, indicating that “The perceived (preliminary) level of job satisfaction among the nurses is higher than the sum of



scores derived from the eight factors of job satisfaction outlined". This conclusion can be better seen when comparing the histogram of the two groups (perceived and overall job satisfaction) in the Figure 4 and Figure 5. Further, it can also be concluded that the current level of job satisfaction of nurses is lower than 3 on a scale of 5, at 2.648 consequently, positively proven hypothesis 1.

## **5.2 Determinants of job satisfaction**

In order to answer the second research question concerning the most influential factors of job satisfaction, a correlation analysis using Pearson's index was carried out for all eight categories of job satisfaction factors in order to test this hypothesis. As seen in table 8, there is a significant linear relationship between all job satisfaction factors and the overall job satisfaction, because all of the coefficients are different from 0 and close to +1. A significant correlation coefficient was found between the overall job satisfaction (combination of all categories) and the eight categories. The rank of the strongest correlations between variables are as the following: work itself ( $r = 0.801$ ,  $p < 0.01$ ), management relationship ( $r = 0.795$ ,  $p < 0.01$ ), autonomy ( $r = 0.783$ ,  $p < 0.01$ ), social communication ( $r = 0.743$ ,  $p < 0.01$ ), development ( $r = 0.740$ ,  $p < 0.01$ ), schedule ( $r = 0.727$ ,  $p < 0.01$ ), resources ( $r = 0.681$ ,  $p < 0.01$ ) and extrinsic rewards ( $r = 0.543$ ,  $p < 0.01$ ). These results show a positive, strong and statistically significant correlation between the later mentioned variables (see Table 8: Correlations between job satisfaction categories and overall job satisfaction).

Apart from the correlation analysis between the overall job satisfaction and its categories, the study further evaluates the correlations between the job satisfaction subscales, in order to investigate possible relevant relationships between certain categories (see Table 9: Correlation coefficient of job satisfaction subscales). The highest correlations between categories were discovered between resources and work itself ( $r = 0.605$ ,  $p < 0.01$ ), meaning that respondents that are satisfied with the resources provided by the hospital are also satisfied with the work itself. Another remarkable correlation can be found between autonomy and management ( $r = 0.637$ ,  $p < 0.01$ ), if the respondent is satisfied with the autonomy is satisfied as well with the management. In the same way, a high correlation appears between development and management ( $r = 0.593$ ,  $p < 0.01$ ). A first reflection can be already driven from these two last correlations hence the management is directly influencing the levels of autonomy and development of the nurses.

After this analysis, the hypothesis 2 “Extrinsic reward is the most influencing factors in job satisfaction among nurses in the ED” can be rejected since the most influencing factor, with a higher correlation is work itself ( $r = 0.801$ ,  $p < 0.01$ ), whereas extrinsic rewards ( $r = 0.543$ ,  $p < 0.01$ ) is the category with the least influence. The second most influencing factors is the relationship with management with a similar high correlation to work itself ( $r = 0.795$ ,  $p < 0.01$ ).

### **5.3 Socio-demographic and job satisfaction**

The last hypothesis is designed to test the influence of socio-demographic factors to the overall job satisfaction level in nurses working in the Emergency Department in public hospitals in Sweden. For both Hypothesis 2 and Hypothesis 3 the analysis is going to be derived from both correlations and means, in order to achieve a deeper understanding of the phenomenon studied. The summary of the means per socio-demographics sub-category are summarized in table 12 (Table means by category and demographic /comparisons of groups). From these results, the means with higher deviation between answers are analyzed (see Table 11: Comparisons of means of level of nurse’s job satisfaction by job satisfaction category and socio-demographics subgroups) as well as the significant correlation (see Table 10: Correlations between socio-demographic variables and job satisfaction subscale (Pearson’s Index)).

#### **5.3.1 Age**

The first sub-hypothesis that the research aims to test is the correlation between age and job satisfaction, stating that older nurses (aged between 51 and 65) have a higher job satisfaction (above 3 on a scale of 5). The correlation coefficient between age and overall job satisfaction is low ( $-0.094$ ) and statistically insignificant as the  $p > 0.05$  ( $0.173$ ). After this analysis, hypothesis 3.1 is rejected.

A significant negative correlation can be found between age and satisfaction with resources having a correlation coefficient of  $-0.148$  at the 0.05 level (2-tailed), as well as a significant negative correlation between age and satisfaction with the communication at work of  $-0.173$ . Younger nurses are more satisfied with resources and communication than older nurses.

Nevertheless, some differences in means (table 11) are observed among the satisfaction by different ages intervals. Older nurses tend to be more dissatisfied with the extrinsic rewards (salaries and compensations) with a mean of 1.38; and with resources with an average mean of 2.54, which is lower than younger nurses. Nurses between 30 and 41 years old are the most satisfied with the development opportunities (3.05), as well as those between 18 and 41 who are the most satisfied with the communication (3.24).

### **5.3.2 Gender**

The second sub-hypothesis to test is if female nurses are more likely to have a higher job satisfaction. With a correlation of -0.093 and a  $p > 0.05$  (0.178) between gender and overall satisfaction, it can be established that there is no significance variance between both variables. By examining the numbers in Table 11 (Comparisons of means of level of nurse's job satisfaction by job satisfaction category and socio-demographics subgroups) no means have a high deviation, the mean for overall job satisfaction for male is 2.75 and for female 2.62. Thus, the hypothesis 3.2 can be rejected.

A significant correlation is revealed between gender and satisfaction with communication (-0.177), describing how men are more dissatisfied with communication than women. This conclusion is further backed up by the slight difference between means regarding the communication, where women (3.42) are more satisfied than men (3.14).

### **5.3.3 Level of education**

To answer the sub-hypothesis 3.3 "Nurses with high level of education (MSc and/or PhD) are more likely to have a high job satisfaction", correlations and means will be taking into account. In this case, no significant correlation has been found as coefficient of -0.088 with  $p > 0.05$  has been found thus, hypothesis 3.3 is rejected.

Nevertheless, some significant correlations have been found between the level of education and other job satisfaction sub-categories. The correlation coefficient between education and satisfaction with the resources is -0.185 and  $p < 0.01$  which renders significance in the 2-tailed test. These results disclose that nurses with higher education are more dissatisfied with the current resources offered by the hospital. In addition, there is a significant correlation

between education and the work itself of  $-0.167$  with a  $p < 0.05$ . Pointing out that nurses with higher education are also more dissatisfied with the work itself than those with lower education.

#### **5.3.4 Number of children**

The last sub-hypothesis to be test is if “Nurses without children or dependents are more likely to have a high job satisfaction”. After the correlation analysis, it is concluded that there is no significant correlation between number of children and overall job satisfaction ( $0.049$ ,  $p > 0.05$ ). As a result, hypothesis 3.4 can be rejected. Exploring means and correlations between this variables and job satisfactions sub-categories, no other significant correlations are revealed.

#### **5.3.5 Other sociodemographic variables**

At this point all sociodemographic related hypothesis has been tested to be rejected, nevertheless some significant correlations and particular differences between means among certain job satisfaction sub-categories has been discovered.

Despite there is no significant correlation between the relationship status and any job satisfaction subcategory, some particular scores are identified. Divorced nurses tend to be more dissatisfied than other groups in different relationship status when asked for the following factors: extrinsic reward, schedule, autonomy, communication and management. Due the small proportion of the divorce respondents in the sample (9 out of 210 total respondents) the significance of this particular fact is low.

Despite this fact that there is no significant correlation, the means analysis points out discrepancy between the level of satisfaction between private and other staff, being the former as the most satisfied with extrinsic rewards, schedule and management. On the opposite side, the most unsatisfied group of nurses are those who work as substitutes, having the lower satisfaction score in extrinsic reward, development, autonomy and management. On the other hand, permanent workers are the most satisfied with their development and the least satisfied with their schedule.

The satisfaction with the extrinsic rewards increases with the experience in the sector (from a mean of 1.87 to 2.11), as well as the satisfaction with the schedule (from a mean of 2.48 to 2.68) and with management (from a mean of 2.46 to 2.76).

A high significant correlation is revealed in Table 10 between the years of experience working in the Emergency Department and the satisfaction with the resources. The correlation coefficient of -0.182 with a  $p < 0.01$  shows that nurses with higher experience in the ED tend to be more unsatisfied with the resources provided by the hospital. From the means analysis some additional outcomes can be driven. For instance, nurses with higher experience in the ED are the most satisfied with the extrinsic rewards, development and management. The nurses with lower experience in the ED has the highest satisfaction with the work itself and the communication, whereas those who have an experience between 1 and 4 years shows more dissatisfaction towards schedule, autonomy and communication.

Concerning the number of working hours per shift, a significant correlation is observed between the satisfaction level in development (-0.143,  $p < 0.05$ ). Nurses having a longer work shift have a tendency to score lower on their satisfaction of working resources. Considering the means, a particular difference has been discovered as having longer working hours affects negatively on career development, work itself, autonomy and relationship with the management satisfaction. Respondents working 10 hours have the highest satisfaction with their salary, while respondents working less than 8 and more than 12 is connected with the lowest satisfaction. Regarding the rank of the nurses, whether they are general, or specialist nurses have no significant correlations with any job satisfaction subcategory (Table 11) or any particular differences between means (Table 12).

When examining the relationship between salary and job satisfaction subcategories, three significant correlations are found. The most significant correlation is discovered between salary and schedule, with high positive correlation (0.237,  $p < 0.01$ ). Thus, nurses with higher salary have a greater satisfaction with their schedule. Additionally, a correlation between salary and extrinsic reward is pointed out (0.169,  $p < 0.05$ ), being the nurses with higher salaries more likely to be satisfied with their extrinsic rewards. Further, salary and satisfaction with autonomy has a correlation coefficient of 0.151 with a  $p < 0.05$ , meaning that respondents with a greater salary tend to be more satisfied with their autonomy. Taking a look into the discrepancies between means, it is noticed that with higher salaries the

satisfaction is higher in subcategories such as development, schedule and management. On the other side, those that earn between 20.000 and 30.000 SEK per month are the most satisfied with resources and the work itself.

#### **5.4 Conclusions of the analysis: Answers to the hypothesis**

In order to provide a basis for the discussion of results, an overview of the hypothesis tests is provided. Hypothesis 1 has been accepted, as job satisfaction among nurses in the Emergency Department is 2.65, which is lower than 3 in the 5-points Likert scale. Hypothesis 1.1 has also been accepted since the perceived job satisfaction compared to the aggregated value of overall job satisfaction (3.51) is proved to be higher than 3 in the 5-points Likert scale. On the other hand, hypothesis 2 has been rejected, considering that the most influential factor affecting overall satisfaction is work itself and management relationship instead of extrinsic rewards, as proposed in the hypothesis. Finally, Hypothesis 3 and their sub-hypothesis has been all rejected since there is no significant correlation between the four-proposed socio-demographic variables (age, gender, level of education and number of children) and the total overall job satisfaction.

## **6 DISCUSSION**

*In order to further discuss and understand the analysis of the results, this chapter will compare the final outcomes with previous research and investigations together with the theoretical framework. First, the current level of job satisfaction will be considered, followed by a review of each job satisfaction factors and a last discussion is about the most influential demographic factors.*

### **6.1 Overall job satisfaction and perceived job satisfaction**

Based on the Hypothesis 1, it was concluded that the overall level of job satisfaction of nurses in Sweden is low, with an average of 2.65 (lower than 3 in the scale of 5). However, the study also reported that the nurses' perceived job satisfaction to be higher than the actual level (3.52) (see Table 7: Descriptive statistics: Perceived and overall job satisfaction). This is further supported by a study conducted by Holmberg, Sobis and Carlstrom (2015) where the respondents (nurses in a Psychiatric Department in Sweden) of the study were asked to score the statement "Overall, I am satisfied with my current work situation and they perceived their overall working condition as satisfactory with a score of 5.18 on the scale of 1 to 7-point Likert scale. However, this question is highly personal and internally driven as it covers what the respondents are currently feeling, which is dependent on the personal circumstances that they were experiencing. This also can be explained by a study by Emerson (2017) who found that the calling to nursing itself is mainly driven by the intrinsic motivation, and in some cases, has a religious component to it as some regard their desire to help others as a purpose of life. Thus, it can be concluded that the nurses gain satisfaction mainly from the design of their tasks itself. Hence, when answering these questions, the respondents tend to be emotional, thus, increasing their tendency to over-score their level of job satisfaction when they are presented with a question without considering other factors, i.e. external elements like job characteristics, environmental and organizational factors. On the other hand, when presented with questions that covers both internal and external factors, the respondents could evaluate their experiences thus resulting in a lower score of the overall level of job satisfaction. As stated by Locke (1976, p.1300), job satisfaction is an "appraisal of one's job or job experiences" hence, this underlines the importance of considering the internal and external factors that drives job satisfaction as it provides the overarching look of this topic.

## **6.2 Factors of job satisfaction**

Factors of job satisfaction outlined throughout this study should be noted that they are not mutually exclusive but collectively supportive. These factors are interrelated in forming a system that captures the encompassing picture of what leads to overall job satisfaction among the nurses in Swedish hospitals.

Contrary to widely held belief, extrinsic reward is not the only relevant factor that would increase a worker's motivation and consequently affect the job satisfaction. This can be seen through the Pearson's correlation coefficient between extrinsic reward and the overall job satisfaction where it is ranked the least influential, among the other seven categories. However, it is also worth noting that there is a positive correlation between the salary range and the extrinsic rewards satisfaction, resulting a higher score of job satisfaction. According to Herzberg's Two-Factors theory (1959), extrinsic rewards is only half of the equation in the attempt to understand employee motivation and job satisfaction. Extrinsic reward is regarded as a hygiene factor, of which if it is absent/inadequate in an organization, would lead to job dissatisfaction, but does not lead to workers motivation. The motivating factors which mainly stems from intrinsic factors, are responsible in enhancing employee motivation, thus leads to job satisfaction. Furthermore, the nursing profession has been regarded as intrinsically motivated job, where the tasks itself is rewarding to the employee, hence, further explains why the respondents (nurses) ranks extrinsic rewards as the least significant factor of job satisfaction.

On the other hand, in the effort to ensure that all the nurses are adequately trained in providing the best care, career development is also essential. Development programs such as technical trainings, opportunity for promotions and support for continuing education are not only important to motivate and shape a better skilled labour, but also has directly linked to nurses' career satisfaction (Price and Reichert, 2017). Further, Price and Reichert (2017) also found the difference of view and effect regarding professional development that varies between different level of experience in healthcare, where novice nurses regarded these trainings as instrumental in helping them in workplace transition, whereas late-career nurses regarded it as helping them in maintaining their competency. Nevertheless, both groups of nurses agree that continuous learning benefits them in career ladder. This can also be seen



in the data collected which shows that both respondents with less than a year of experience in healthcare and respondents with more than four years, scored similarly in the average level of satisfaction regarding career development. This shows that both groups equally recognize the importance of career development. Additionally, as career development is the management's discretion, there is a high correlation between these two factors (0.593) which shows that if the nurses approve of the level of career development, they would also have a better relationship with management.

Additionally, according to the analysis, management relationship with the nurses is the second most influential factor to affect the overall job satisfaction. This is because the working condition in the hospital is also under the discretion of the management thus, the more satisfied the nurses with the overall working condition, the better they would regard their relationship with management. This is illustrated by the high correlation coefficient between management relationship and the overall job satisfaction (0.795,  $p < 0.01$ ). While the respondents generally regard their manager as competent and communication with them as satisfactory, they consider the management's steps in measuring their satisfaction as inadequate. As transformational leadership is an important attribute for employee retention, according to Andrews et al. (2012), taking into consideration employee's opinion and involving them in the decision making would help in creating a more conducive work environment. Furthermore, relationship with management is dependent on the nurses' satisfaction with other factors that are under the management discretion such as employees' career development and autonomy. Thus, addressing these other factors would consequently affect the overall relationship with the management.

Autonomy is another factor that is under management control. Reiterating Hackman and Oldham's theory of Job Characteristics (1975), it is noted that among other factors, autonomy is a crucial factor that is instrumental in contributing to employee job satisfaction. This is because, employee needs to feel the sense of freedom and independence when performing their job that allows them to have ownership and responsibility to the success (also failure) at work. Autonomy is also a motivator factor, according to Herzberg's Two Factors theory, which further explains the high correlation between autonomy and the overall job satisfaction (0.783,  $p < 0.01$ ) which ranked third among the eight factors. As McNeese-Smith (1999) found, there is a higher ratio of nurses to physicians, thus, physicians need to move around, allowing the nurses to have opportunities to rely on their independent thinking when

providing care to the patients. Even though the job structure of nursing itself permits high degree of autonomy, ultimately, it is the management's decision in the degree of freedom and involvement in decision making to be granted to the employees. Consequently, there is a high correlation between autonomy and management relationship can be seen from the data collected.

Furthermore, among the other factors, work itself is found to have the strongest correlation to the overall job satisfaction with a coefficient of 0.801,  $p < 0.01$ . This result is in contrary to the findings by Bjork et al. (2007), who stated that social interactions, pay and work autonomy were the most crucial factors. The questions that are covered in this category are closely related to the intensity of the nurses' workload which indirectly studies the level of stress that the nurses are exposed to. Body of research has proven that being overloaded can lead to job dissatisfaction hence, level of staffing, facilities, equipment and other resources that are the enabling factors of the nurses' day to day operations shaped the work environment for the nurses. As mentioned before, the ED are prone to more stressful and demanding environment compared to other departments as discussed by Adriaenssens et al. (2011). This is supported by the data collected and a study done by Toh et al. (2012) where there is a high correlation between the work itself with resources (level of staffing).

As considered in the literature review and supported by data from the World Health Organization (WHO), the current lack of nurses in Sweden together with the growing populations, represents a negative pronostics for the health situation for the future. This is in line with the results expressed by the nurses in the ED who rated their satisfaction with the hospital resources (facilities, HR and service quality) as low (2.75). The main concern is related to the degeneration of the quality of the care provided to the patients due to the lack of personnel. This outcome are aligned with Aiken et al. (2012) that spotlight similar dissatisfaction in patient safety and quality of care among other nurses from european countries. Both low satisfaction with the "ability to perform good patient care tasks" and with the "hospital facilities" can be originated from the low acute care bed per population size, of only 2.4 beds per 1000 inhabitants (OECD, 2018). This scarcity of facilities is highly correlated as stated by Shin and Lee (2016) with lower quality of patient care.

The shortage of nurses is affecting the ability to decide and change the working schedule, due to the lack of personnel to cover certain shifts such as nights or weekends. The capacity from

a nurse to achieve flexibility to get holidays, weekends off and scheduling convenient working hours for a whole team that needs to be active 24 hours per day, every day in the week (Socialstyrelsen, 2018) is challenging. Nevertheless, this subject must be addressed in order to avoid having extra costs by hiring private nurses covering this shift. In the same level of importance is the balance between personal and professional life especially for families with kids, when the reconciliation of familiar schedules and flexible work schedule is even more appreciated, and necessary, to achieve a high job satisfaction.

Other than the intensity of the schedule, communication and interactions between co-workers has the highest averages of job satisfaction. The relationship between colleagues is a relevant factor to explain the positive or negative attitudes toward one's job according to Hackman and Oldham (1979). The good atmosphere in a working context as well as a positive feeling of teamwork was likewise stated by the Wahlin I. et al. (2010) carried out among nurses working in the intensive care unit. On the other hand, there is a low satisfaction regarding the existing routines to solve conflicts between colleagues, showing that they are either insufficient or non-existent. This feeling of been unjustly treated between divisions was earlier pointed out as an organizational factors of job dissatisfaction by McNeese-Smith (1999).

### **6.3 Socio-demographic**

The socio-demographic variables have been tested to not be significantly correlated with the overall job satisfaction in this research, thus, contradicting Ramoo, Abdullah and Piaw (2013) who found that age, gender, educational level and work experience were related to job satisfaction. Nonetheless, some results concerning relationship between socio-demographics and job satisfaction factors will be discussed, as it helps in understanding the different nurses perspectives and formulating more accurate managerial recommendations.

Concerning the age, data collected suggests that older nurses (41 to 65) have lower satisfaction with resources and communication. This fact can be explained by the corresponding relation between age and experience in the industry, with a high correlation between variables of 0.522 with a  $p < 0.01$ . This long experience with the resources in the hospitals (facilities, coworkers competence, quality of the service) make them more critical and more demanding of higher standards. At the same time, young nurses are more satisfied

with the communication with their coworkers and how the conflicts are solved in the workplace, where older nurses continue to be more dissenting. The main difference between men and women is their contentment with the communication. This fact can be affected by different factors from psychological to managerial, how men interactions differs from women and how social and professional interaction excellence can be defined in diverse approaches depending on the gender.

Nurses who have a higher education level presents a greater dissatisfaction with the resources, meaning that their expectancies of how the administration should work differs from the reality. Due to their experience, they have more insight on how the administration can improve thus, they have a higher expectation on the level of facilities, equipment and quality of the patients. Consequently, they are more likely to deem the current level of care as inadequate. Since there is no significant difference observed between job satisfaction level of specialist and general nurse, there is no incentive to pursue higher education. This data will show that the shortage of specialist nurses will continue to be a source of concern as outlined in the introduction. Additionally, the fact of working longer hours represents a negative influence to certain factors in work satisfaction such as work itself, autonomy and management. Nurses working over 12 hours are generally dissatisfied especially with their salaries. Following the Expectancy Theory (Porter and Lawler's, 1968), these nurses are not satisfied with their extrinsic rewards because they feel that their salaries do not meet their expectancies according to amount of work realised.

Regarding the type of employment, there are two main categories of nurses, the permanently hired and the privately hired nurses who are compensated by hour. These private nurses are hired by the public hospitals when there is a shortage of permanent nurses and the shifts cannot be filled by them. These nurses have a different managerial team as well as different salaries, usually higher than the permanently hired nurses employed by the hospital and have a higher autonomy of organizing their schedules and work shifts, depending on the demand of the hospital and the policies of the private healthcare provider. This is in line with the results derived from the present study that ascertain the higher satisfaction among private nurses with their salaries, schedule and management relationship. On the other hand, workers with a permanent contract have more opportunities to stay in their position longer, thus their ability and possibility of further development is higher than any other worker as well as they have a higher job security.

## **7 CONCLUSIONS**

### **7.1 Answering to research questions**

The current study has investigated the level, determinants and predictors of job satisfaction among nurses in the Emergency Department in public hospitals in Sweden. By answering to the research questions, this paper aims to increase the understandings of the variables that are related to job satisfaction as well as further address the current situation from a practical point of view.

Starting with the results from the first hypothesis, the research exhibits low job satisfaction score among nurses working in the Emergency Department and points out that the factors that exhibit higher scores were those related with social communication, general quality of medical care and communication and competence of manager.

Second, the highest correlation among factors to the overall job satisfaction is found between the category work itself (workload, daily routine, time to discuss patient care, breaks and compensation for overtime) and relationship with management (competence of manager, communication with manager and positive feedback). This shows the importance of how an improvement in working conditions may reduce the stress and burnout effects and consequently, overall dissatisfaction. This is closely related with the necessary improvements of the resources to increase overall quality of the service, finally dependent on how management helps the nurses to feel good in their work positions. This underlines the important figure and ability of the management to change the situation and improve the aforementioned conditions.

Finally, socio-demographic variables such as age, gender, level of education and number of children has been proved to not have a significant influence on the overall job satisfaction, however, in formulating a recommendation for improvement, studying the socio-demographic factors will help in understanding different perspectives of nurses.

### **7.2 Theoretical and practical contributions**

From this study both theoretical and practical contributions are derived. From a theoretical point of view the present study introduces a new questionnaire derived from worldwide used instrument, categorized with eight subfactors (Extrinsic rewards, Development, Resources, Work itself, Schedule, Autonomy, Social communication and Management relationship) and within the support of three theories (Herzberg Two-factors theory, Hackman and Oldham and Porter and Lawler's expectancy theory), with a special focus on the external factors as it is the discretion of management, thus more useful in formulating recommendations.

The practical contributions of this study are of special relevance, since the present results can urge managerial positions to improve the job satisfaction among their workers and stakeholders. It also shed light on certain factors that were undermined such as the nurse satisfaction measurement, the influence of nurses in organizational decisions, the compensation for weekends and evening/nights and the correct number of nurses that can offer a good patient care quality.

Additionally, even though the number of studies about job satisfaction among nurses has been largely investigated during the last years, this research provides a deeper understanding on a topic that has not been broadly studied, covering a specific department (ED) in the hospitals of Sweden from a nurse's perspective.

### **7.3 Recommendations**

In consistence with the discussion, some recommendations for the managerial positions in the Emergency Department can be drawn. First of all, the present study has shed light into the nurses' situation discovering insights that can be difficult to detect from the managers' side. Thus, in this direction, the first suggestion would be to assess and monitor job in an internal, and regular basis the overall job satisfaction. One possible way to do it, would be by sending similar surveys to the one presented in this study to calculate the scores in each area that can affect the employee satisfaction at work. In the same line, the results show the dissatisfaction concerning the feedback given by the managers, thus a regular and positive feedback should be amended.

As the data collected from the study points out, nurses in ED in Sweden are generally dissatisfied with their salary, however, it is not as influential as other seven factors in the

overall job satisfaction. Due to Sweden's comprehensive social policy that covers healthcare, retirement benefits and job security, the nurse's basic hygiene factors are covered, thus, explaining the reason behind this phenomenon. On contrary to widespread belief, increasing salary and compensation would not have a significant and direct effect to the overall job satisfaction, if special consideration is not given on other pressing issues such as the working condition and resources available. By addressing these factors, the overall job satisfaction will significantly improve thus, creating an attractive environment to retain the nurses.

Additionally, a special attention should be established for the most experienced nurses who have shown a lower satisfaction with the resources and management. By actively getting feedback and suggestions from the most senior employees, both nurses and administration can benefit. Nurses will feel that their opinion are heard and matter to the management, hence simultaneously the managers will get valuable information that can positively change the efficiency and effectiveness of the daily work. Parallely, the relationship between these group of nurses will improve with their superiors as they feel more appreciated. Furthermore, the involvement of these experienced nurses in the organizational decision, and the possibility of giving them more responsibility, will lead to a better work environment. Consequently, with more satisfied nurses, the quality of services will also improve as proven by various studies.

An important new activity that can be performed is the introduction of individual interviews or meetings between nurses and their managers in order to assess particular concerns and identify their needs, which will further strengthen the relationship with their supervisor. We suggest that those meeting are implemented bi-annually or annually. Otherwise, if those meeting are set to regularly the recommendations would be redundant and it could be perceived as a waste of time due to the nurses' busy schedule, thus it would be counterproductive.

Apart from this, another suggestion is to ensure the access to enough resources, particularly in the form of human resources is available. One way to achieve the necessary number of nurses would be an investment in the internal resources, by increasing the permanent workers compensations, instead of depending on external resources like private nurses which represents higher costs. This improvement of the compensations for working nights and weekends, shifts that are generally taken by private nurses, will significantly improve the

permanent nurses' working condition which represent majority of the population. The better working condition will make the nursing profession more to new recruits as well as current nurses. All these recommendations would help the whole team, including the administration and the nurses, to be more aware of the importance of job satisfaction in the final quality of the care.

#### **7.4 Limitations and future research**

This thesis has shed light into the importance of job satisfaction and its factors, however, some limitations in the study should be presented. First of all, while the results from this study provides meaningful insights into the working conditions of nurses in the ED in Sweden, the results and recommendation outlined cannot be generalized to various contexts as it is highly culturally bounded. For example, the nurses' low correlation of extrinsic rewards to overall job satisfaction is a result from comprehensive social policy which is a cornerstone of Swedish governmental policy. Thus, generalizing this policy to other countries would not have the same effect especially due to the limited sample size of the study.

Some other limitations might be related to the extent of which the presented factors represent the real job satisfaction, opening a gap to further and future research to find the most precise way of showing the job satisfaction level in nurses in the ED.

The direction of the research is limited to the levels and influences of the eight factors found during the study, nevertheless, could have been interesting to reflect upon the causal relations between those factors and the overall level of job satisfaction. In the same line, the results are restricted to the aforementioned factors selected in order to investigate the phenomenon. However, if a qualitative method was pursued instead, some other factors that would better explain the issue might have been discovered.

For future research would be interesting to first, repeat the implementation if the survey among the same respondents in order to test replicability and stability of the results. Second, to carry out the same investigation among other hospital departments, as well as Emergency Departments in other countries and additionally study assistant nurses and physicians as well. This will allow a more holistic view of job satisfaction of the entire workforce in the healthcare industry. Third, some related phenomenon could be study together with the



presented survey such as the level of performance or the extent to which the nurse's turnover is related with their job satisfaction. These future investigations will be a helpful tool to address the shortage of nurses, increase the retention of current nurses as well as decrease rate and intention of turnover. Forth, the study could be further analysed by contemplating the results of the implementation of the mentioned recommendations. Fifth, new research could add the managerial perspective on how some of the factors can be directly improved by the administration. Sixth, future research would be beneficial to study the effect of the external contracted nurses in order to increase the understanding of the role and consequences of this group of workers in the Swedish healthcare system.

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## FIGURES

**Figure 1. Map of the six national health care regions in Sweden. Cities with university departments are shown.**



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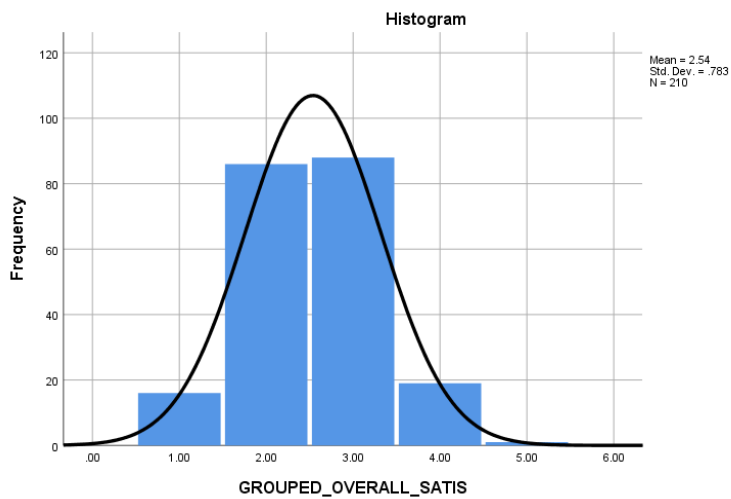
**Figure 2 : Theoretical Framework**



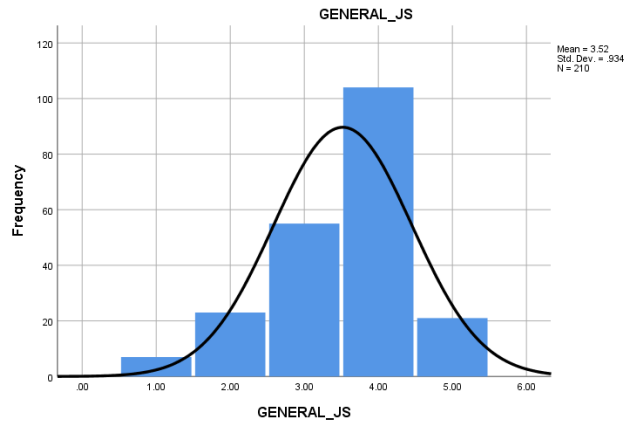
**Figure 3: Job satisfaction factors**



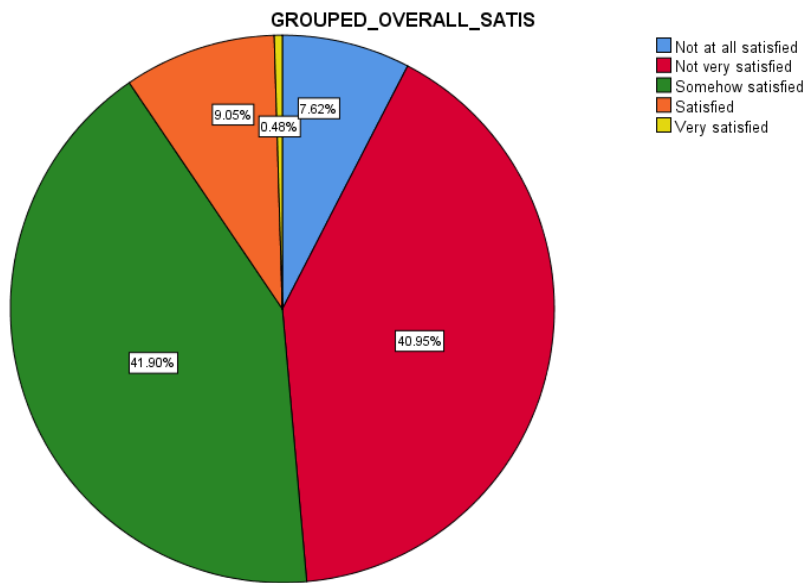
**Figure 4: Histogram of overall job satisfaction**



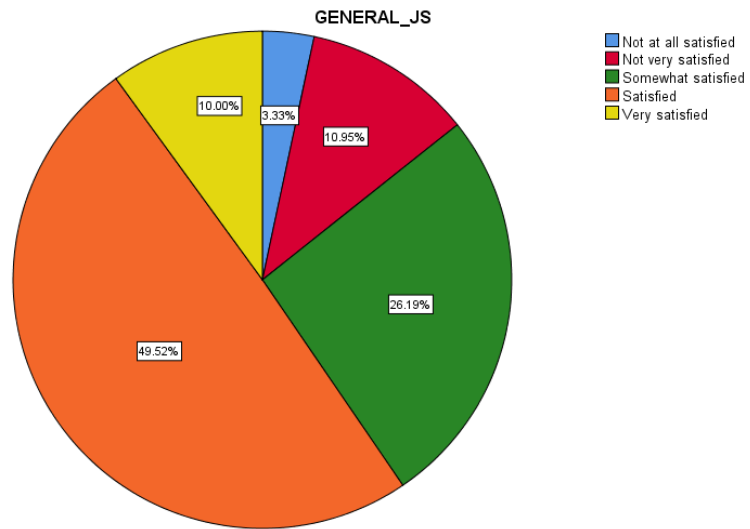
**Figure 5: Histogram of perceived job satisfaction**



**Figure 6: Chart of overall job satisfaction**



**Figure 7: Chart of perceived job satisfaction**



**Figure 8: Correlation between job satisfaction factors and overall job satisfaction**



## TABLES

**Table 1: Reliability test: Cronbach's Alpha for Job satisfaction factors**

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EXTRINSIC_REWARD	19.0978	16.959	.401	.184	.877
DEVELOPMENT	18.3502	15.474	.640	.438	.852
RESOURCES	18.4290	16.698	.593	.435	.858
WORK_ITSELF	18.6216	15.346	.727	.564	.843
SCHEDULE	18.5704	15.366	.618	.404	.855
AUTONOMY	18.7407	15.289	.700	.520	.845
MANAGEMENT	18.4873	14.409	.696	.546	.846
SOCIAL_COMMUNICATION	17.9876	16.354	.669	.476	.851

**Table 2: Reliability test: Cronbach's Alpha for Overall Job Satisfaction**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.870	.873	8

**Table 3: Survey demographics**

Gender	Male (19.84%)	Female (80.16%)			
Age	20 – 30 (38.46%)	31 – 40 (32.79%)	41 – 50 (15.79%)	51 – 60 (9.31%)	61 – 65 (3.64%)
Relationship Status	Married (31.98%)	Single (25.51%)	Divorced (3.24%)	Sambo (39.27%)	

Number of children	0 (46.15%)	1 (14.57%)	2 (22.67%)	More than 2 (16.6%)	
Level of education	Bachelor's (97%)		Master's (2.43%)	Doctorate (0.4%)	
Employment type	Employed by the hour (2.83%)	Substitute (temporary) (2.43%)	Permanent (91.5%)	Private Staffing (3.24%)	
Experience in Healthcare	Less than 1 year (4.86%)	1 – 4 years (34.01%)	More than 4 years (61.13%)		
Experience in ED	Less than 1 year (23.89%)	1 – 4 years (38.87%)	More than 4 years (37.25%)		
Working time per shift	Less than 8 hours (5.26%)	8 hours (69.64%)	10 hours (23.48%)	12 hours (0.81%)	More than 12 hours (0.81%)
Rank	Specialist Nurse (73.28%)		General Nurse (26.72%)		
Salary	Less than 20,000 SEK (0.81%)	20,000 – 30,000 SEK (55.47%)	30,000 – 40,000 SEK (38.87%)	More than 40,000 SEK (3.64%)	Choose not to disclose (1.21%)

**Table 4 : Rank means per subcategory**

Job satisfaction subcategory	Mean
Social Communication	3.20
Development	2.83
Resources	2.75
Management	2.70
Schedule	2.61
Work itself	2.56
Autonomy	2.44



Extrinsic reward	2.09
Overall job satisfaction	2.65

**Table 5 : Means of job satisfaction survey**

Determinants of job satisfaction	Mean	Average
<b>EXTRINSIC REWARDS</b>		
Salary	2.35	2.09
Compensation when working on the weekends	1.96	
Compensations working nights/evenings	1.95	
<b>DEVELOPMENT</b>		
Promotion opportunities	2.38	2.83
Level of introductory training	3.09	
Level of training in use of new equipment	3.07	
Support for continuing training	2.97	
Support to pursue higher education (change in schedule, salary during studies)	2.66	
<b>RESOURCES</b>		
Ability to perform good patient care tasks	2.47	2.75
Hospital facilities	2.64	
Medical equipment is updated regularly	3.20	
Enough nurses on staff to provide quality patient care	1.95	
Work with clinically competent nurses	3.02	
The overall medical care delivery is high quality	3.27	
Adequate support services	2.73	
<b>WORK ITSELF</b>		
Intensity of Workload	2.27	2.56
Daily Routine in general	2.96	
Enough time and opportunities to discuss patient care problems with other nurses	2.44	
Break during my shift	2.70	

Policies and compensation for overtime	2.44	
<b>SCHEDULE</b>		
Flexibility to take vacation	2.44	2.61
Flexibility in scheduling working hours	2.96	
Weekends off per month	2.46	
Life-work balance	2.59	
<b>AUTONOMY</b>		
Opportunity to influence organizational decision making	1.91	2.44
Freedom to make their own decision regarding patient care and work	2.97	
<b>SOCIAL COMMUNICATION</b>		
Communication with coworkers (nurses, assistant nurses) in your department	3.70	3.20
Communication with physicians	3.60	
Conflicts between colleagues are easily resolved	3.31	
Routines exists to solve conflicts between colleagues	2.60	
Opportunities for social contact at work	3.38	
Professional interaction between other departments	2.58	
<b>MANAGEMENT</b>		
Competence of your manager	3.13	2.70
Communication with your manager	3.18	
Opportunity to get in contact with management for questions and opinions	2.72	
Encouragement and positive feedback	2.45	
Nurse satisfaction is measured and addressed	2.00	
<b>OVERALL SATISFACTION</b>		2.65

**Table 6: Normality test: Shapiro Wilks**

	Tests of Normality					
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
OVERALL_SATIS	.041	210	.200 <sup>*</sup>	.995	210	.772

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

**Table 7: Descriptive statistics : Perceived and overall job satisfaction**

		Overall Job Satisfaction	Perceived Job Satisfaction
N	Valid	210	210
	Missing	0	0
Mean		2.6479	3.5190
Median		2.6359	4.0000
Std. Deviation		.56151	.93426
Variance		.315	.873

**Table 8: Correlations between job satisfaction categories and overall job satisfaction**

Factors	Pearson Correlation	Significance (2-tailed)
Extrinsic Rewards 8	0.543**	0.000
Development 5	0.740**	0.000
Resources 7	0.681**	0.000
Work itself 1	<b>0.801**</b>	0.000
Schedule 6	0.727**	0.000
Autonomy 3	0.783**	0.000
Social Communication 4	0.743**	0.000
Management 2	<b>0.795**</b>	0.000

\*\* Correlation is significant at 0.01 level (2-tailed test)

**Table 9: Correlation coefficient of job satisfaction subscales**

	Extrinsic Rewards	Development	Resources	Work itself	Schedule	Autonomy	Communication	Management	Overall Job Satisfaction
Extrinsic Rewards	1	0.335**	0.224**	0.326**	0.365**	0.308**	0.291**	0.281**	0.543**
Development		1	0.395**	0.522**	0.428**	0.488**	0.499**	<b>0.593**</b>	0.740**
Resources			1	<b>0.605**</b>	0.420**	0.469**	0.538**	0.445**	0.681**

Work itself				1	0.565**	0.576**	0.540**	0.555**	0.801**
Schedule					1	0.504**	0.436**	0.461**	0.727**
Autonomy						1	0.556**	<b>0.637**</b>	0.783**
Communication							1	0.565**	0.743**
Management								1	0.795**
Overall Job Satisfaction									1

\*\*P < 0.001. Correlation is significant at the 0.01 level (2-tailed).

**Table 10: Correlations between socio-demographic variables and job satisfaction subscale (Pearson's Index)**

n=210	Extrinsic Rewards	Development	Resources	Work itself	Schedule	Autonomy	Communication	Management	Overall Job Satisfaction
Gender	-0.048	-0.045	-0.023	0.020	-0.066	-0.098	<b>-0.177*</b>	-0.110	-0.093
Age	-0.120	-0.033	<b>-0.148*</b>	-0.068	-0.112	0.029	<b>-0.173*</b>	0.025	-0.094
Marital status	-0.80	-0.057	-0.006	0.045	-0.054	0.008	0.037	0.008	-0.020
Number of children	0.022	0.076	-0.038	0.013	0.036	0.073	-0.013	0.083	0.049
Education	-0.021	-0.034	- <b>0.185**</b>	- <b>0.167*</b>	0.003	-0.024	-0.106	-0.028	-0.088
Employment Type	0.084	0.067	0.045	0.002	0.123	0.002	-0.024	0.018	0.057
Experience Healthcare	0.066	0.072	-0.064	0.027	0.100	0.101	-0.047	0.097	0.070
Experience Emergency Department	-0.044	0.102	- <b>0.182**</b>	-0.109	0.008	0.031	-0.063	0.033	-0.028

Working hours	0.096	<b>-0.143*</b>	-0.075	-0.118	-0.043	-0.119	-0.028	-0.135	-0.100
Rank	0.030	-0.004	-0.048	-0.076	0.075	0.003	-0.031	-0.032	-0.011
Salary range	<b>0.169*</b>	0.094	-0.060	0.022	<b>0.237*</b>	<b>0.151*</b>	-0.038	0.122	0.133

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

**Table 11: Comparisons of means of level of nurse's job satisfaction by job satisfaction category and socio-demographics subgroups**

	n	Job satisfaction							
		Extrinsic Reward	Development	Resources	Work itself	Schedule	Autonomy	Communication	Management
<b>Gender</b>									
Male	41	2.16 (0.76)	2.91(0.78)	2.78 (0.70)	2.531(0.69)	2.73 (0.92)	2.60 (0.80)	<b>3.42 (0.58)</b>	2.90 (0.95)
Female	169	2.07 (0.79)	2.81 (0.81)	2.75 (0.61)	2.57 (0.76)	2.59 (0.82)	2.40 (0.77)	<b>3.14 (0.63)</b>	2.70 (0.92)
<b>Age</b>									
20-30	81	<b>2.06 (0.83)</b>	2.76 (0.77)	2.88 (0.69)	2.57 (0.80)	2.72 (0.82)	2.36 (0.77)	<b>3.24 (0.63)</b>	2.62 (0.94)
31-40	69	<b>2.25 (0.80)</b>	<b>3.05 (0.80)</b>	2.68 (0.58)	2.61 (0.711)	2.65 (0.88)	2.56 (0.79)	<b>3.34 (0.59)</b>	2.78 (0.94)
41-50	34	<b>2.08 (0.67)</b>	2.64 (0.87)	2.76 (0.57)	2.56 (0.73)	2.41 (0.751)	2.37 (0.77)	2.98 (0.66)	2.70 (0.92)
51-60	19	<b>1.85 (0.64)</b>	2.70 (0.82)	<b>2.54 (0.66)</b>	2.45 (0.80)	2.34 (0.98)	2.53 (0.90)	2.93 (0.64)	2.80 (0.96)
61-65	7	<b>1.38 (0.62)</b>	2.80 (0.69)	<b>2.60 (0.40)</b>	<b>2.22 (0.33)</b>	2.79 (0.73)	2.35 (0.47)	2.97 (0.54)	2.45 (0.71)
<b>Relationship Status</b>									
Married	70	2.15 (0.74)	2.90 (0.92)	2.76 (0.57)	2.54 (0.77)	2.68 (0.93)	<b>2.55 (0.86)</b>	3.16 (0.63)	<b>2.78 (1.01)</b>
Single	53	2.11 (0.85)	2.81 (0.77)	2.75 (0.71)	2.51 (0.71)	2.62 (0.82)	<b>2.22 (0.62)</b>	3.22 (0.56)	<b>2.5 (0.83)</b>
Divorced	6	<b>1.94 (0.61)</b>	2.96 (0.52)	2.78 (0.32)	2.63 (0.38)	2.42 (0.73)	<b>2.00 (0.44)</b>	<b>2.77 (0.60)</b>	<b>2.63 (0.49)</b>
Sambo	81	2.01 (0.80)	2.78 (0.73)	2.75 (0.66)	2.60 (0.78)	2.57 (0.79)	<b>2.51 (0.79)</b>	3.23 (0.66)	<b>2.74 (0.93)</b>

Number of children									
0	100	2.10	2.77	2.79	2.52	2.60	2.34	3.17	2.60
1	28	2.01	2.76	2.59	2.56	2.47	2.50	3.21	2.57
2	48	1.97	2.98	2.83	2.73	2.73	2.72	3.32	3.00
More than 2	34	2.25	2.85	2.66	2.42	2.61	2.29	3.04	2.62

**Table 12: Comparison of means of job satisfaction categories and socio-demographics variables**

	n	Job satisfaction							
		Extrinsic Reward	Development	Resources	Work itself	Schedule	Autonomy	Communication	Management
<b>Level of education</b>									
Bachelor's	205	2.08	2.84	2.82	2.63	2.60	2.46	3.23	2.72
Master's	4	1.58	2.95	2.07	2.10	2.50	2.37	2.83	2.65
Doctorate	1	2.00	1.80	2.43	2.00	2.00	2.50	2.67	3.40
<b>Employment type</b>									
By hour	4	2.33	2.50	2.42	2.50	2.88	2.65	3.41	2.90
Substitute/temporary	5	2.00	2.44	<b>3.14</b>	2.76	2.75	<b>2.10</b>	3.33	2.60
Permanent	195	2.04	<b>2.85</b>	2.74	2.55	2.55	2.44	3.18	2.68
Private staffing	6	<b>3.16</b>	<b>2.71</b>	<b>3.00</b>	2.66	<b>4.38</b>	2.41	3.41	<b>3.10</b>
<b>Experience in the healthcare</b>									
Less than a year	11	<b>1.87</b>	2.90	2.87	2.4	2.48	2.45	3.11	2.43
1-4 years	69	<b>2.05</b>	2.70	2.79	2.57	2.50	2.29	3.27	2.61
More than 4 years	130	<b>2.11</b>	2.89	2.72	2.56	<b>2.68</b>	2.51	3.16	<b>2.76</b>
<b>Experience in the ED</b>									
Less than a year	49	2.14	2.80	2.97	<b>2.79</b>	2.79	2.53	3.23	2.68
1-4 years	77	2.08	2.69	2.71	2.44	<b>2.38</b>	<b>2.27</b>	<b>2.23</b>	2.64
More than 4 years	84	<b>2.95</b>	<b>2.97</b>	<b>2.66</b>	2.53	2.73	2.54	3.14	<b>2.75</b>
<b>Working time per shift</b>									
Less than 8 hours	12	1.72	<b>3.08</b>	2.76	<b>2.71</b>	2.79	<b>2.66</b>	3.11	<b>2.80</b>
8 hours	142	2.04	2.87	2.77	<b>2.57</b>	2.59	<b>2.46</b>	3.22	<b>2.76</b>

10 hours	53	2.34	2.70	2.74	<b>2.53</b>	2.70	<b>2.35</b>	3.15	<b>2.54</b>
12 hours	1	1.00	2.22	2.85	<b>2.20</b>	1.00	<b>1.50</b>	3.00	<b>1.00</b>
More than 12 hours	2	1.00	2.30	1.85	1.40	2.00	2.00	3.08	2.20
<b>Rank</b>									
Specialist Nurse	154	2.07	2.83	2.77	2.59	2.57	2.44	3.20	2.71
General Nurse	56	2.12	2.82	2.75	2.56	2.72	2.44	3.16	2.64
<b>Salary</b>									
Less than 20,000 SEK	1	3.00	2.20	1.57	1.80	3.00	2.50	3.33	2.80
20,000 - 30,000 SEK	115	<b>1.97</b>	2.80	2.83	2.57	2.48	2.36	<b>3.24</b>	<b>2.62</b>
30,000 - 40,000 SEK	85	2.15	2.82	2.66	2.54	2.69	2.50	<b>3.11</b>	<b>2.74</b>
More than 40,000 SEK	8	2.70	<b>3.17</b>	2.57	2.30	<b>3.38</b>	2.56	3.29	<b>3.00</b>
Not want to answer	1	2.67	4.20	4.28	4.80	5.00	5.00	4.16	4.6

## APPENDIX

### APPENDIX 1: General factors of job satisfaction

Instrument	Factors
Job in General Scale	<ul style="list-style-type: none"> <li>- Work itself</li> <li>- pay</li> <li>- promotion</li> <li>- supervisor relationship</li> <li>- co-workers relationship</li> </ul>
Job Satisfaction Scale (JSS)	<ul style="list-style-type: none"> <li>- Pay</li> <li>- Promotion</li> <li>- Supervisor</li> <li>- Co-worker</li> <li>- Benefit</li> <li>- contingent rewards</li> <li>- Operation procedure</li> <li>- nature of work</li> <li>- communication</li> </ul>
McCloskey-Mueller	<ul style="list-style-type: none"> <li>- Extrinsic reward</li> <li>- scheduling satisfaction</li> <li>- family/work balance</li> <li>- co-worker</li> <li>- career advancement</li> <li>- quality of patient care</li> <li>- nursing education</li> <li>- relationship with supervisor</li> <li>- communication</li> </ul>
Index of Work Satisfaction (IWS)	<ul style="list-style-type: none"> <li>- Task requirement</li> <li>- autonomy</li> </ul>



	<ul style="list-style-type: none"> <li>- salary</li> <li>- organizational policies</li> <li>- professional status</li> <li>- interaction</li> </ul>
MIOWS	<ul style="list-style-type: none"> <li>- Task requirement</li> <li>- work interaction</li> <li>- decision making</li> <li>- autonomy</li> <li>- professional development</li> <li>- professional status</li> <li>- supportive management</li> <li>- work condition</li> <li>- salary</li> </ul>
Nurse Satisfaction Scale	<ul style="list-style-type: none"> <li>- Administration</li> <li>- Co-worker</li> <li>- career</li> <li>- patient care</li> <li>- relationship with supervisor</li> <li>- nursing education</li> <li>- communication</li> </ul>

## **APPENDIX 2: Self-completion online questionnaire (English)**

Dear nurse,

Thank you for participating in this survey as part of a master's thesis in International Strategic Management at Lund University, Sweden.

The purpose of this study is to examine determinants of job satisfaction. The completion of the form will approximately take 5-10 minutes.

**IMPORTANT:** Please answer all questions.

Your answers will be treated anonymously and confidentially. If you have any questions, please do not hesitate to contact us [ca0350ga-s@student.lu.se.com](mailto:ca0350ga-s@student.lu.se.com) or [la8345ab-s@student.lu.se.com](mailto:la8345ab-s@student.lu.se.com)

Thank you for your valuable contribution!

Latiffa Alia and Carolina

### **SOCIO-DEMOGRAPHIC**

1. Gender (Male/Women/Other/Do not want to answer )
2. Age range (20-30/31-40/41-50/51-60/61-65)
3. Marital Status (Married,Sambo, Single/Divorced)
4. Number of children (0, 1, 2, more than 2)
5. Level of education (Highest nursing diploma, Bachelor, Masters, Doctorate)
6. Employment type (contract, permanent)
7. Years of experience working in healthcare (less than 1 year, between 1 to 4 years, more than 4 years)
8. Years of experience in the ED (less than 1 year, between 1 to 4 years, more than 4) years)
9. Flexibility change shift duty (low, medium, high)
10. Working hours (less than 8, 8, 10, 12, more than 12)
11. Rank (nurse or specialty nurse)
12. Salary (below 20000, 20000-30000, 30000-40000, more than 40000)
13. Name of your hospital

## **OVERALL JOB SATISFACTION**

How satisfied are you with your current job?

Please evaluate your level of satisfaction as a nurse in regard to the following aspects.

PLEASE CHOOSE:

“Not applicable”, if the aspect is not applicable to you

“Unsatisfied”, if the aspect does not match your expectations at all.

“Not very satisfied”, if the aspect does not match your expectations.

“Somewhat satisfied”, if the aspect does partly match your expectations.

“Satisfied”, if the aspect matches your expectations.

“Very satisfied”, if the aspect exceeds your expectations.

How satisfied are you with the following aspects?

### **1) EXTRINSIC REWARD**

- Salary
- Compensation when working on the weekends
- Compensations working nights/evenings

### **2) DEVELOPMENT OPPORTUNITIES AND PROMOTION (FOR YOU)**

- Promotion opportunities
- Level of introductory training
- Level of training in use of new equipment
- Support for continuing training
- Support to pursue higher education (change in schedule, salary during studies)

### **3) WORKING CONDITIONS**

#### **a) RESOURCES**

Equipment and facilities

- Ability to perform good patient care tasks
- Hospital facilities
- Medical equipment is updated regularly

Human Resources

- Enough nurses on staff to provide quality patient care

- Work with clinically competent nurses

#### Quality of Service

- The overall medical care delivery is high quality
- Adequate support services
- Reliable and efficient patient-information system

#### b) WORK ITSELF

- Intensity of Workload
- Daily Routine in general
- Enough time and opportunities to discuss patient care problems with other nurses
- Break during my shift
- Policies and compensation for overtime

#### c) SCHEDULE

- Flexibility to take vacation
- Flexibility in scheduling working hours
- Weekends off per month
- Life-work balance

#### d) AUTONOMY

- Opportunity to influence organizational decision making
- Freedom to make their own decision regarding patient care and work
- Opportunity to serve on hospital and nursing committees

### **4) SOCIAL RELATIONSHIP AND COMMUNICATION**

- Communication with coworkers (nurses, assistant nurses) in your department
- Communication with physicians
- Conflicts between colleagues are easily resolved
- Routines exists to solve conflicts between colleagues
- Opportunities for social contact at work
- Professional interaction between other departments
- Nurses who give patient care help determine appropriate staffing levels

## **5) RELATIONSHIP WITH MANAGEMENT**

- Competence of your manager
- Communication with your manager
- Opportunity to get in contact with management for questions and opinions
- Supervision by your manager
- Encouragement and positive feedback
- Nurse satisfaction is measured and addressed

### **APPENDIX 3: Self-completion online questionnaire (Swedish)**

Kära sjuksköterska,

Tack för att du valt att delta i denna enkät som är en del i en uppsats på masterprogrammet International Strategic Management på Lunds Universitet i Sverige.

Syftet med studien är att utreda faktorer för arbetstillfredsställelse (job satisfaction). Hela enkäten kommer ta ca 5-10 minuter att slutföra.

**VIKTIGT:** Var snäll och svara på alla frågor.

Dina svar kommer att hanteras konfidentiellt och anonymt. Om du har några frågor så tveka inte att kontakta oss på [ca0350ga-s@student.lu.se.com](mailto:ca0350ga-s@student.lu.se.com) eller [la8345ab-s@student.lu.se.com](mailto:la8345ab-s@student.lu.se.com).

Tack så mycket för din värdefulla hjälp!

Latiffa Alia och Carolina.

#### **Socio-demografi**

1. Kön (man/kvinna/annan/vill inte svara)
2. Ålder (20-30 / 31-40 / 41-50 / 51-60 / 61-65+)
3. Civilstånd (gift, singel, skild, sambo)
4. Antal barn (0, 1, 2, mer än 2)
5. Utbildningsnivå (Näm den högsta - Kandidatexamen, Magister, Master, Doktorand)
6. Typ av anställning (tjänstställd, vikariat, fast tjänst,)
7. Antal år inom hälso- och sjukvård. (Mindre än 1 år, 1-4 år, mer än 4 år)
8. Antal år på akutmottagning (Mindre än 1 år, 1-4 år, mer än 4 år)
9. Flexibilitet med att byta redan schemalagda pass (låg, medel, hög)
10. Arbetstid per pass (mindre än 8, 8, 10, 12, mer än 12)
11. Allmänsjuksköterska eller specialistsjuksköterska
12. Lön (mindre än 20000, 20000-30000, 30000-40000, mer än 40000)
13. Namn på sjukhuset.

#### **Övergripande arbetstillfredsställelse**

Hur nöjd är du med ditt nuvarande arbete?

Var snäll och uppskatta din nivå av tillfredsställelse för följande aspekter:

VÄLJ MELLAN:

“Inte relevant”, om aspekten inte är relevant för dig.

“Inte alls tillfredsställd”, om aspekten inte alls matchar dina förväntningar.

“Inte särskilt tillfredsställd”, om aspekten inte matchar dina förväntningar.

“Någorlunda tillfredsställd”, om aspekten delvis matchar dina förväntningar.

“Tillfredsställd”, om aspekten matchar dina förväntningar.

“Mycket tillfredsställd”, om aspekten överträffar dina förväntningar.

Hur tillfredsställd är du för följande aspekter?

### **1. EXTRINSIC REWARDS**

- a. Lön
- b. Ersättning för arbete på helger
- c. Ersättning för arbete på kvällar och nätter.

### **2. UTVECKLINGSMÖJLIGHETER OCH MÖJLIGHET TILL BEFORDRAN (FÖR DIG)**

- a. Möjlighet till befordran
- b. Nivån på introduktion
- c. Nivå på utbildning och träning för ny materiel och nya medicintekniska apparater
- d. Stöd för fortsatt träning
- e. Stöd för fortsatt högre utbildning (förändringar i schema, lön under utbildning)

### **3. ARBETSFÖRHÅLLANDE**

#### **a. RESURSER**

Utrustning och lokaler

- i. Möjlighet att utföra bra omvårdnad till patienterna
- ii. Lokaler på sjukhuset
- iii. Medicinsk utrustning uppdateras regelbundet

HR

- iv. Tillräckligt med sjuksköterskor för att ge omvårdnad med hög kvalitet
- v. Arbetet sker med kliniskt kompetenta sjuksköterskor

#### Kvalitet på service

- vi. Den övergripande medicinska vården ges med hög kvalitet
- vii. Adekvat support finns ??
- viii. Säkert och effektivt system för patientinformation

#### b. ARBETET

- i. Intensitet på arbetsbelastning
- ii. Dagliga rutiner
- iii. Tillräckligt med tid och möjlighet att diskutera problem med patientvård tillsammans med kollegor
- iv. Raster
- v. Bestämmelser och ersättning för övertid

#### c. SCHEMA

- i. Flexibilitet för att ta ut semester
- ii. Flexibilitet att bestämma eget schema
- iii. Antal lediga helger per månad
- iv. Balans mellan arbete och fritid

#### d. AUTONOMI

- i. Möjlighet till att påverka organisatoriska beslut
- ii. Frihet att ta egna beslut kring arbete och patientvård

### **4. SOCIALA RELATIONER OCH KOMMUNIKATION**

- a. Kommunikation med kollegor (sjuksköterskor och undersköterskor) på din avdelning
- b. Kommunikation med läkare
- c. Konflikter mellan kollegor går att lösa enkelt
- d. Rutiner finns för att lösa konflikter mellan kollegor
- e. Möjlighet för sociala kontakter på arbetet
- f. Professionell interaktion från andra avdelningar
- g. Sjuksköterskor som arbetar med patientvård bestämmer personalnivå för varje pass

### **5. RELATION MED LEDNING**



- a. Din chefs kompetens
- b. Kommunikation med din chef
- c. Möjlighet att ta kontakt med ledningen för frågor/åsikter
- d. Tillsyn av din chef
- e. Uppmuntran och positiv återkoppling från ledning
- f. Sjuksköterskors tillfredsställelse mäts och adresseras