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**JOB SATISFACTION AMONG SAUDI ARABIAN RESPIRATORY
THERAPISTS**

By

Saleh M. Alosaimi

A Thesis

Presented in Partial Fulfilment of Requirements for the

Degree of Master of Science in Health Sciences in the

Department of Respiratory Therapy

Under the supervision of Dr. Douglas S. Gardenhire

In

Byrdine F. Lewis College of Nursing and Health Professions

Georgia State University Atlanta, GA

Fall, 2021

ACCEPTANCE

This thesis, JOB SATISFACTION AMONG SAUDI ARABIAN RESPIRATORY THERAPISTS, by Saleh M. Alosaimi was prepared under the direction of the Master Thesis Advisory Committee of the Respiratory Therapy department at Georgia State University. It is accepted by the committee in partial fulfilment of requirements for the Master of Science degree with a concentration in Respiratory Therapy at Byrdine F. Lewis College of Nursing and Health Professions, Georgia State University.

The Master Thesis Advisory Committee, as representatives of the faculty, certifies that this thesis has met all standards of excellence and scholarship as determined by the faculty.



Douglas S. Gardenhire Ed.D, RRT, RRT-NPS, FAARC
Committee Chair



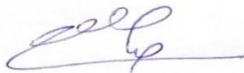
Rachel Culbreth PhD, MPH, RRT
Committee Member

Robert Brent Murray, MS, RRT
Committee Member

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Saleh M. Alosaimi

3780 Towne Crossing

Kennesaw, GA 30144

The director of this thesis is:

Douglas S. Gardenhire, Ed.D, RRT, RRT-NPS, FAARC

Governor's Teaching Fellow

Chair and Clinical Professor

Byrdine F. Lewis School of Nursing and Health Professions

Department of Respiratory Therapy

Georgia State University

P.O. Box4019

Atlanta, GA 30302-4019

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DEDICATION

First, I would like to express my thanks and gratitude to my God for everything he gave me in this life. It will be impossible to achieve this accomplishment without my God's blessings and supports. Also, I would like to thank my parents (Mohammed & Muslihah) for their care, motivation, encouragement, and support. There are no words could describe my love to my parent who played an important role in my success in my whole life. My gratitude and appreciation go to my brothers and sisters who encourage and motivate me to do my best to achieve this accomplishment. Finally, I would like to thank my friends for their support and encouragement. Thanks for supporting me all through the ups and downs.

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JOB SATISFACTION AMONG SAUDI ARABIAN RESPIRATORY THERAPISTS

By

Saleh Alosaimi

(Under the Direction of Dr. Douglas S. Gardenhire)

ABSTRACT

BACKGROUND: Job satisfaction has been a significant issue for healthcare organizations in recent years due to job satisfaction's influence on performance and the quality of patient care. Although job satisfaction has a strong association with respiratory therapists' performance, the job satisfaction of Saudi Arabian respiratory therapists (RTs) has not previously been examined. **PURPOSE:** This cross-sectional study aimed to measure the job satisfaction level among Saudi Arabian RTs. This study aimed to identify the occupational and personal characteristic factors that influence the job satisfaction. The study also investigated the educational background influence on job satisfaction. **METHODS:** The study used a cross-sectional survey that consist of two sections: sociodemographic section and the Job Satisfaction Survey (JSS), which was developed by Paul Spector in 1985. **RESULTS:** A total of 140 responders participated and completed the research survey. Research found that payment, promotion, fringe benefits, and contingents rewards were associated with dissatisfaction among RTs. In contrast, nature of work and coworkers found to be associated with improving job satisfaction in Saudi Arabian RTs. The study findings found no significant association between personal factors and overall job satisfaction. In addition, the study found that RTs who work for 8 hrs found to be more satisfied with their job compared to RTs who work for 12 hrs. The study found that RTs who studied in US were more satisfied with their nature of work compared to RTs that studied in Saudi Arabia.

CONCLUSIONS: RTs were not satisfied with their payment, promotion, fringe benefits, and contingent rewards, while they were satisfied with coworkers' relationships and nature of work. Further study is needed to understand job satisfaction among Saudi Arabian RTs and factors that could influence job satisfaction since these studies will increase healthcare organizations' and respiratory care departments' awareness about the job satisfaction of their RT employees.

List of Abbreviations

AARC: American Association for Respiratory Care

COPD: Chronic Obstructive Pulmonary Disease

ER: Emergency Rooms

ICU: Intensive Care Units

JSS: Job Satisfaction Survey

PT: Physiotherapy

RC: Respiratory Care

RCP: Respiratory Care Practitioner

RT: Respiratory therapy

RTs: Respiratory Therapists

SA: Saudi Arabia

WFC: Work-family conflict

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CHAPTER I

Introduction

Respiratory therapy (RT) is an allied health profession that assesses and treats people suffering from cardiopulmonary disorders (Alotaibi, 2015). According to the American Association for Respiratory Care (AARC), RT roles and responsibilities include identifying and diagnosing lung disease, consultation with doctors to recommend a treatment change, analyzing breath, tissue, and blood gas samples, managing ventilators and airway, responding to emergency cases, and educating patients about lung disease. Qualified RTs are essential healthcare staff in many critical units such as intensive care units (ICU), emergency rooms (ER), and operating rooms. Since respiratory therapists (RTs) work in critical units and stressful environments, they are at high risk of job stress. A study aimed to examine that association between using a directed respiratory care protocol and job satisfaction found that RTs in the ICU and ER had higher levels of occupational stress than those working in an adult in-patient hospital (Metcalf, Stoller, Habermann, & Fry, 2015). Job stress could negatively impact job satisfaction among RTs and increase RT turnover and staff shortage.

The demand for RTs is already very high and is expected to increase in the future. According to the U.S. Bureau of Labor Statistics, Respiratory therapists' employment is expected to grow 19 percent from 2019 to 2029, significantly faster than the national average (U.S. Bureau of Labor Statistics 2021). An explanation is that the growing middle-aged and older population will increase the prevalence of respiratory diseases such as pneumonia, chronic obstructive pulmonary disease (COPD), and COVID-19 (U.S. Bureau of Labor Statistics 2021). Therefore, the increase in the aging population will increase the demand for RTs. This rising need for RTs requires both the training of new RTs and the retention of

existing practitioners by turnover (Metcalf, Stoller, Habermann, & Fry, 2015). Job satisfaction and factors influencing job satisfaction among RTs should be investigated to inform the retention of RT practitioners.

In recent years, job satisfaction has become a critical problem for healthcare organizations. Job satisfaction is defined as a positive emotional feeling that employees have toward their jobs or the pleasant attitude that employees experience because of their employment (Bello, Ajayi, & Asuzu, 2018). Although many factors could affect job satisfaction, most studies focus on personal and occupational factors. Personal factors that may influence job satisfaction include age, years of experience, gender, professional achievements, personal contentment, and degree of education (Domagała et al., 2018; Liu et al., 2012). Occupational factors that may influence job satisfaction include autonomy and workload, employment expectations, colleague relationships, perceived treatment quality, payment, academic and administrative requirements, leadership, engagement with support employees, usage of electronic health information, and health care reform implementation (Domagała et al., 2018; Seo, Ko, & Price, 2004). Studying these factors will contribute to improving job satisfaction among healthcare workers prevent the consequences of job dissatisfaction.

Job satisfaction has a substantial impact on staff performance and improving the quality of care. One study that assessed the job satisfaction in nursing found that Nurses who believe they deliver high-quality treatment and have a close relationship with their patients are the most satisfied with their work (Utriainen & Kyngäs, 2009). In similar findings, another study found that physician job satisfaction is linked to a higher quality of care and patient satisfaction and less self-reported suboptimal patient care behaviors, and fewer self-reported

errors (de Oliveira Vasconcelos Filho, de Souza, Elias, & Viana, 2016). The more satisfied healthcare professionals are more likely to provide high-quality care for their patients.

Statement of the Problem

Work conditions in the RT field are very stressful and could be associated with increased job stress and decreasing job satisfaction among RTs. Job satisfaction has a strong effect on healthcare staff performance and quality of patient care. Therefore, improving job satisfaction among healthcare staff will improve their performance and increase the quality of patient care. In addition, the impact of job satisfaction on the turnover rate and employees' intentions to leave the job is significant, and low job satisfaction could lead to more turnover and increase the staff shortage in the RT field. Therefore, the job satisfaction level and different elements that affect RTs' job satisfaction should be well studied. Studying job satisfaction could provide important informant that will contribute to understanding and identifying the concept of job satisfaction and associated factors that influence job satisfaction. This information could help in improving the job satisfaction among RTs and prevent job dissatisfaction consequences.

Purpose of the Study

This cross-sectional study aimed to assess the job satisfaction level among RTs in Saudi Arabia (SA). This study aimed to identify the job and personal factors that influence job satisfaction. The study investigated the educational background influence on job satisfaction.

Research Question

The following research questions will lead to the data collection required to achieve the present study's requirements.

1. To what extent are Saudi Arabian Respiratory Therapists satisfied with their jobs?

2. What occupational and personal factors are associated with job satisfaction among Saudi Arabian respiratory therapists?
3. Is there an association between education level and job satisfaction?

Significance of the Study

The study provided information that contributes to the understanding and provides an overview of job satisfaction levels among Saudi Arabian RTs. The study investigated the association between personal, occupational factors and job satisfaction. Knowing the association between personal, occupational factors and job satisfaction could provide several solutions to the healthcare organizations and the respiratory care (RC) department managers to improve job satisfaction levels among their staff, prevent staff turnover and minimize the staff shortage in the RT field. Although many studies investigate job satisfaction in healthcare professionals, this type of study in the RT field in SA is scarce, and job satisfaction levels and associated factors among Saudi Arabian RTs are still unknown.

Delimitations

The participants' data in this study collected data from various regions in the SA of RTs. This study's conclusions can only be applied to this group of therapists. It eliminated on-job training RTs, RT interns, and students from the survey to avoid inaccuracies. The therapists' data was used to answer the study's questions. The study used an online survey that was sent to online groups for participation. Therefore, it is difficult to assure that all participants in this study were RTs. However, the invitation letter clearly stated that this survey was designed for RT participants, and only RT staff could participate in the survey.

Definition of Terms

AARC: American Association for Respiratory Care

COPD: Chronic Obstructive Pulmonary Disease

ER: Emergency Rooms

ICU: Intensive Care Units

SA: Saudi Arabia

RC: Respiratory Care

RT: Respiratory therapy

RTs: Respiratory Therapists

CHAPTER II

LITERATURE REVIEW

The literature review uses the previous studies data to discuss the job satisfaction among healthcare professionals in different specialties from different countries around the world to give an overview of job satisfaction among healthcare workers. The literature review aims to describe the topic from several angles, exhibit differing views on the issue, and uncover evidence gaps that highlight the necessity for the current study. The literature review also aims to identify the related factors that could lead to job satisfaction or dissatisfaction. Electronic databases were used to search for literature related to job satisfaction and healthcare professionals. The electronic databases used to obtain the relevant literature were Google Scholar, PubMed, Science Direct, Wiley Online Library, The Journal of Nursing Administration (JONA), and Georgia State University Library. To maximize the amount of relevant literature, key phrases and similar phrases were utilized in the subject search. The literature review is organized and divided into the following sections:

Job satisfaction among respiratory therapists

Job satisfaction among RTs is crucial since it has a significant association with RTs' performance, absenteeism, and intent to leave the job or field (Shelledy, Mikles, May, & Youtsey, 1992). Although job satisfaction is associated with RT performance and turnover, the factors that influence RTs' job satisfaction and turnover have received little attention in the research (Metcalf, Stoller, Habermann, & Fry, 2015). However, a study aimed to determine the rate of RTs turnover and the cost of training new staff members found that RTs turnover rates ranged from 3% to 18% per year. The researchers also found that the ratio of hospital beds to RT staff was highly correlated with the rate of annual turnover (Stoller, Orens, &

Kester, 2001). In addition, the 2014 AARC Respiratory Therapist Human Resource Study found that 64 percent of hospitals had similar turnover rates as the previous year, with 18 percent reporting increases and 18 percent reporting declines in turnover (Shaw, Benavente, 2014). RTs' turnover and job satisfaction should be further studied to inform the retention of RT practitioners .

The use of respiratory care protocol could significantly improve job satisfaction among RTs. The study aimed to assess the use of respiratory care protocol and associated level of RT job satisfaction, turnover, and job stress found a significant association between the use of respiratory care protocol and job satisfaction among RTs (Metcalf, Stoller, Habermann, & Fry, 2015). Researchers found that the use of respiratory care protocols was associated with increased RT job satisfaction, lower rates of turnover intentions, and lower levels of job stress (Metcalf, Stoller, Habermann, & Fry, 2015). Also, they found that RTs who had more experience were more satisfied with their job than others (Metcalf, Stoller, Habermann, & Fry, 2015). In the same study, working in critical units such as ICU or ER was associated with increased job stress among RTs. The researchers found that RTs working in ICU or ER had higher job stress levels than those working in an adult inpatient unit (Metcalf, Stoller, Habermann, & Fry, 2015). In addition, the study results found that RTs who worked in teaching hospitals had lower rates of turnover intentions (Metcalf, Stoller, Habermann, & Fry, 2015) .

The organization's leadership style has a substantial impact on job satisfaction among RTs, and the type of leadership style could have a significant effect on RTs' job satisfaction. A study that assessed respiratory therapists' attitudes toward managerial decision-making style found a significant association between job satisfaction among

RTs and leadership style (Blake, Kester, & Stoller, 2004). According to the study, the decision-making styles are divided into three different types: autocratic, consultative, and delegative (Blake, Kester, & Stoller, 2004). The autocratic style is defined as managers making judgments without consulting others or asking for suggestions. The consultative style is when the managers ask for opinions and ideas and then decide alone after considering suggestions and concerns. Delegative style can be defined as the manager assigned decision-making authority and accountability to an individual or group. The researchers found that RTs had a high overall job satisfaction (Blake, Kester, & Stoller, 2004). The study results also revealed that RTs preferred their managers to use consultative and delegative decision-making styles compared to autocratic styles (Blake, Kester, & Stoller, 2004). Therefore, higher job satisfaction among RTs was correlated to delegative and consultative decision-making styles (Blake, Kester, & Stoller, 2004). The study found that job satisfaction among RTs was higher in small respiratory care departments than in large respiratory care departments (Blake, Kester, & Stoller, 2004). However, the study's findings demonstrated no significant association between RTs' job satisfaction and personal factors such as sex, education, and years of experience (Blake, Kester, & Stoller, 2004).

Burnout and job stress have a significant association with job satisfaction and strongly influence job satisfaction among RTs. A study investigating the relationship among burnout, job satisfaction (JS), absenteeism, and respiratory care practitioners (RCP) intention to leave their work or field found a significant association between job satisfaction and burnout among RCPs. The researchers found that the increase in job satisfaction caused a substantial decrease in burnout levels among RCPs (Shelledy,

Mikles, May, & Youtsey, 1992). The study found several predictors of RCPs' burnout such as job satisfaction, satisfaction with co-workers and co-workers supports, job independence, recognition by nursing. However, the strongest predictor of burnout among RCPs was job stress (Shelledy, Mikles, May, & Youtsey, 1992). The study also found many predictors of job satisfaction among RCPs, such as recognition by physicians and nursing, age, burnout, level, absenteeism, and intent to leave the field. In addition, the strongest predictor of satisfaction with co-workers was co-workers' support (Shelledy, Mikles, May, & Youtsey, 1992). The study showed a significant association between burnout level among RCPs and absenteeism and intent to leave the job. The increase in burnout caused a rise in absenteeism and increased intention to leave the job (Shelledy, Mikles, May, & Youtsey, 1992).

Job satisfaction among nurses

Nurse job satisfaction has been a significant issue for healthcare organizations over recent years due to potential staff shortages, their influence on patient care, and their costs (Al Maqbali, 2015). Job satisfaction is a significant component in nurse retention and the provision of high-quality care. However, fast developments in healthcare services have increased nurses' responsibility, which has raised the need for organizations to examine methods to maintain and improve nurses' job satisfaction (Al Maqbali, 2015). Researchers have attempted to examine the various factors of job satisfaction and investigate the influence these components have on workers' productivity (Liu et al., 2012). Evaluating the job satisfaction of nurses is a complicated issue that is influenced by several factors (Liu et al., 2012), and it could vary depending on the type of nursing work, the location of employment, the specialty area, and the nursing role (Utriainen & Kyngäs, 2009). Although the researchers used different methods and

strategies to assess job satisfaction and the related factors, most studies focus on two areas which are personal and occupational factors.

Personal factors could have a significant influence on the job satisfaction of nurses. Personal factors include age, years of practice, gender, professional achievements, and marital status (Domagała et al., 2018). Nurses' job satisfaction and intention to stay employed were significantly influenced by the increase in age and long experience (Liu et al., 2012). Moreover, Nurses over the age of 37 were more satisfied than younger nurses (Bjørk, Samdal, Hansen, Tørstad, & Hamilton, 2007). In similar findings, senior nurses who worked in specialized clinical units and had more years of expertise were more likely to be more satisfied and remain in their careers (Liu et al., 2012). Also, one study found that Junior nurses with less than ten years of experience were significantly dissatisfied compared to their senior colleagues (Kaddourah, Khalidi, Abu-Shaheen, & Al-Tannir, 2013). However, the same study found no significant relationship between the nurses' age and their job satisfaction. In addition, another study found that personal factors, including age and years of experience, were not associated with job satisfaction (Adams & Bond, 2000).

The level of education could have an important impact on job satisfaction among nurses. A study found that nurses with master's degrees or those continuing education were more satisfied than those without additional education (Bjørk et al., 2007). In contrast, Kaddourah et al. (2013) found that nurses with a diploma were more satisfied in their job than nurses with a bachelor's degree. In similar findings, Nurses with an associate degree were satisfied in their careers compared to nurses with a diploma or a bachelor's degree (Liu et al., 2012).

Another personal factors that could affect job satisfaction is marital status. Two studies suggested that nurses who were married and had children were more satisfied than single nurses (Liu et al., 2012; H. Lu, Zhao, & While, 2019).

The occupational factors are as important as the personal factors in determining job satisfaction among nurses. A study claimed that occupational factors are more relevant than personal nurse traits in influencing job satisfaction (Utriainen & Kyngäs, 2009). The occupational factors could include autonomy, interpersonal relationship, work environment, supervisory support, pay, job security, and opportunity for personal growth (Domagała et al., 2018).

Professional autonomy is one of the most important factors that could affect job satisfaction in nursing. Autonomy could be defined as the degree to which job-related initiative, freedom, and independence are permitted or required in daily work activities (Finn, 2001). One meta-analysis investigating the strength of the associations between job satisfaction and autonomy, job stress, and nurse-physician collaboration found a positive relationship between increasing autonomy and improving job satisfaction among nurses (Zangaro & Soeken, 2007). This result indicates that more independence and freedom in work activities will increase job satisfaction. In addition, another study found that job satisfaction was associated with more professional autonomy, greater control over the practice environment, and the use of nursing systems that promote accountability and uniformity of care (Adams & Bond, 2000).

An interpersonal relationship is another component that could influence job satisfaction. One study found that nurses' social and professional relationships with nursing and other professional colleagues were crucial to their job satisfaction (Adams & Bond, 2000). It has been demonstrated that practical nurse-physician collaboration can improve working

relationships and patient outcomes (Dechairo-Marino, Jordan-Marsh, Traiger, & Saulo, 2001). Also, the relationships between nurses and the other nursing staff members are an essential factor in increasing job satisfaction (Dunn, Wilson, & Esterman, 2005). The improvement of the quality of nurses' working relationships could enhance job satisfaction and patient care.

The work environment has a significant effect on job satisfaction since the stressful environment could negatively impact the nurses' job satisfaction. The stress of working in a hospital has long been identified as a significant factor affecting job satisfaction and retention (Unruh, 2005). Job stress is caused by various factors, including new technology, labor shortages, and unpredictable workloads (Zangaro & Soeken, 2007). One study found that employees may experience varying stress levels because of technological changes (Robbins, 2003). Also, the staff shortage and increased workload have a significant impact on job satisfaction among nurses. The workload is considered as a crucial factor is influencing job stress and affecting nurse job satisfaction (Seo et al., 2004). One study examining job satisfaction among nurses found that half of the nurses said the nurse-to-patient ratio was too high (Kaddourah et al., 2013). In similar findings, Patient-to-nurse ratios of 4 or less were linked to a lower risk of job dissatisfaction (M. Lu, Ruan, Xing, & Hu, 2015). Job satisfaction and improved quality and safety of care were connected to a good working environment and enough staffing levels. Also, the specialty and different working area could also influence job satisfaction among nurses. Researchers demonstrated that nurses working in surgery units were satisfied than those working in medical wards. In addition, Nurses in critical care units were significantly satisfied than those on medical/surgical wards regarding a good orientation program and competent coworkers (Kaddourah et al., 2013).

The payment and promotion chances could play an essential role in improving nursing job satisfaction. Job growth and increase in salary have been considered to have a positive impact on nurses' job satisfaction. One study found that nurses are more satisfied at work to develop their knowledge and give them a sense of personal progress (Seo et al., 2004). In addition, another study found an association between a lack of extrinsic rewards and job dissatisfaction. Researchers found that 50.2% of the participants were dissatisfied, and most participants were not satisfied with extrinsic rewards (Liu et al., 2012). Also, a study that aimed to describe job satisfaction among hospital nurses in Norway found that pay was important predictors of job satisfaction (Bjørk, Samdal, Hansen, Tørstad, & Hamilton, 2007). Most unsatisfied nurses are not satisfied with their salaries (Kaddourah et al., 2013). The healthcare organization and managers of the nursing department could job satisfaction among nurses and prevent nurses' intention to leave the job by improving nurses' salaries and promotion chances to increase.

Job satisfaction among physicians

Physicians' employment demands and workload in in-patient care have expanded significantly in recent years (Laubach & Fischbeck, 2007). An explanation for this high demand could be that a significant number of physicians are considering changing jobs, pursuing non-clinical work, more complex therapeutic procedures, and more administrative and quality-control procedures or early retirement (Laubach & Fischbeck, 2007; Pathman et al., 2002). Physicians' job satisfaction is associated with various medical outcomes, including healthcare quality, patient satisfaction and treatment adherence, and interpersonal aspects of patient care (Domagała et al., 2018; Pathman et al., 2002). Considering the significance of job satisfaction to physicians' well-being and the quality of care they provide, it is crucial to investigate factors that contribute to or decrease job satisfaction (de Oliveira Vasconcelos

Filho et al., 2016). Many studies have shown that physicians' job satisfaction can be affected by many personal and occupational factors.

Job satisfaction among physicians has been associated with many personal factors such as age, years of practice, gender, marital status, and personal satisfaction (Domagała et al., 2018). Age and gender could have a significant impact on physicians' job satisfaction. Some studies suggested that male physicians were more satisfied than female colleagues (Bauer & Groneberg, 2013; Michinov, Olivier-Chiron, Rusch, & Chiron, 2008). On the contrary, one study found that the job satisfaction among females is higher than males because women have lower expectations at their job (Bello et al., 2018). Also, physicians' age is another factor that could influence job satisfaction. Two studies showed a positive relationship between the increase in age and job satisfaction (Janus et al., 2008; Rosta, Nylenna, & Aasland, 2009). Older and more experienced physicians tend to be more satisfied than their younger colleagues (Domagała et al., 2018). Similarly, senior physicians with more extended work experience reported significantly higher satisfaction scores (Bovier & Perneger, 2003). Older physicians found to be satisfied with their job because of have more chances for promotion and high income (Bello et al., 2018). On the other hand, several studies found no significant relationship between job satisfaction and age and gender (French, Ikenwilo, & Scott, 2007; Mache, Vitzthum, Klapp, & Groneberg, 2012; Ommen et al., 2009).

Marital status is one of the personal factors that have an important effect on job satisfaction. The physicians who were married and had children seem to be more satisfied with their careers. One study found that two-thirds of married respondents and had at least one child been more satisfied than single respondents (Domagała et al., 2018). Although marital status has been shown to impact job satisfaction, two studies that evaluate the influence of marital status

on job satisfaction found no significant association (French et al., 2007; Gaszynska, Stankiewicz-Rudnicki, Szatko, Wieczorek, & Gaszynski, 2014).

Work-family conflict (WFC) plays an essential role in job satisfaction among physicians. Overall, job satisfaction was strongly associated with physicians' capacity to achieve a good balance between work and family life (Bello et al., 2018). Female physicians are more likely to be dissatisfied with their job due to WFC. One study demonstrated that female doctors reported significantly higher WFC than male, and only a minority of women scored high job satisfaction (Ádám, Györffy, & László, 2009). Physicians who experience the WFC are at high risk of having low job satisfaction, predominantly female doctors.

A good work environment and other job characteristic factors could significantly improve the physicians' performance and job satisfaction. The job aspects that could affect job satisfaction include autonomy and work control, workload, job demands, colleague relationships, perceived quality of care, financial and non-financial incentives (Jean Elizabeth Wallace & Lemaire, 2007; Jean E Wallace, Lemaire, & Ghali, 2009). Physician satisfaction is associated to physicians' health and well-being and the morale of healthcare professionals and personnel, the overall quality of care, and physician turnover (Bovier & Perneger, 2003). Therefore, understanding job characteristics associated with physician work satisfaction is essential for physicians and medical associations (Ramirez, Graham, Richards, Gregory, & Cull, 1996).

Physicians' income and financial benefits have been stated as important occupational factors in determining job satisfaction. physicians' salary has been found as the organizational element having the highest association to job satisfaction (Al-Zoubi, 2012; Young, Milner, Edmunds, Pentsil, & Broman, 2014). Physicians' turnover and intention to leave the job were

high among those less pleased with their pay (Pathman et al., 2002). Another study examining the job satisfaction among primary care physicians found that 45% of participants were not satisfied with their remuneration (Behmann et al., 2012). In similar findings, a study claimed that a responder who was delighted with their income was six times more likely to be satisfied with their work than a respondent who was dissatisfied with their pay (Bello et al., 2018). Healthcare organizations should consider providing more monetary enticements to physicians to prevent dissatisfaction and turnover rate.

Although high income has a strong relationship with job satisfaction, Nonfinancial variables appear to impact physicians' motivation significantly that could positively affect their job satisfaction. Nonfinancial factors that could improve physicians' motivation include the availability of resources, chances for career progression, supervision, management concerns, and internal communication (de Oliveira Vasconcelos Filho et al., 2016). Two studies assessing nonfinancial variables' effect on job satisfaction demonstrated a statistically significant association between receiving non-monetary incentives and feeling appreciated in the previous year and improving physician satisfaction (Peña-Sánchez et al., 2014; Visser, Smets, Oort, & De Haes, 2003). The physicians who receive sufficient appreciation and feel valuable are more likely to be more motivated and have a high job satisfaction level.

Specialty is another component that contributes to or reduces job satisfaction among physicians. Specialty physicians have received advanced training in a specific medical field which allows them to manage complex health issues that primary care physicians may not be able to. Several studies revealed an association between specialty and job satisfaction (Aalto et al., 2014; Heponiemi, Kuusio, Sinervo, & Elovainio, 2011; Laubach & Fischbeck, 2007). Although it is very complicated to determine which specialty is associated with improving job

satisfaction, one study found that Staff in laboratory medicine, radiology, and pediatrics were more satisfied with their work than other specialties (French et al., 2007). Also, another study demonstrated that psychiatrists were considerably less happy with their jobs than others (Aalto et al., 2014). Overall, non-specialists showed lower job satisfaction and organizational commitment than specialists and physicians completing specialized training (Heponiemi et al., 2011).

A positive work environment and good relationships with colleagues and other healthcare professionals have been found to enhance job satisfaction among physicians. Workload could negatively affect the work environment and reduce job satisfaction. Workload satisfaction was associated with increased odds of job satisfaction among physicians (Heponiemi et al., 2011). Higher satisfaction scores for 'patient care,' 'income-prestige,' and 'professional relations' were strongly related to the expected number of patients seen each week (Bovier & Perneger, 2003). In the same study, researchers found that dissatisfaction with work-related 'burden' was associated to overall work time. Moreover, several studies reveal a substantial negative relationship between job-related psychological stress, work volume, and physician satisfaction (Visser et al., 2003). The relationship and interactions with colleague and other healthcare workers is an essential element on predicting job satisfaction. There is a great deal of evidence that there is a connection between physician satisfaction and colleague support (Domagała et al., 2018). Job satisfaction may be improved by establishing effective communication channels and providing feedback (Bello et al., 2018). In a similar finding, the most pleasant aspect of the job was having solid relationships with coworkers (de Oliveira Vasconcelos Filho et al., 2016). A doctor who was satisfied with any of the following areas: supervision, operating

procedures, coworkers, nature of work, communication, job autonomy, and work hours were more likely to have a high job satisfaction level (Bello et al., 2018).

Job satisfaction among healthcare professionals in Saudi Arabia

Saudi Arabia (SA) is growing very fast in all disciplines, particularly in the healthcare field (Aldossary, While, & Barriball, 2008). Saudi Arabia's healthcare system has seen a dramatic change in structure, scale, breadth, coverage, technology, and the inescapable impact of increased globalization trends (Batayneh, Ali, & Nashwan, 2019). As in many other countries, job satisfaction among all healthcare professionals in SA is critical in improving healthcare workers' performance and the quality of medical services. Although assessing job satisfaction among healthcare providers is critical to develop and improve the healthcare system, there are a few studies that evaluate and investigate job satisfaction of medical professionals in SA.

In nursing, according to Al-Dossary and colleagues (2012) there were only five studies on job satisfaction have been conducted in SA from 1990 to 2010. Also, the studies that aimed to determine physicians' job satisfaction were a few and mainly focused on primary care physicians (Aldrees, Al-Eissa, Badri, Aljuhayman, & Zamakhshary, 2015). There is also a lack of medical research on job satisfaction among allied health professionals, including physiotherapists (PTs) (Alkassabi et al., 2018). One study that measured the job satisfaction and job stress among pharmacists in Riyadh claimed that no studies had presented a clear picture of pharmacists' work satisfaction and job stress in SA (Suleiman, 2015). This finding is similar to the literature review finding in this study since no previous study has been found on job satisfaction among respiratory therapists in SA.

Job satisfaction among Saudi Arabian healthcare professionals varies from one specialty to another since each specialty has a different role and requirements. However, job satisfaction

seems to be high in some medical specialties in SA. One study that assessed job satisfaction among physicians found that only 30 % of participants were dissatisfied with their careers (Aldrees et al., 2015). Also, another study that assessed job satisfaction among pharmacists showed that over half of independent community pharmacists said they were satisfied with their job (Suleiman, 2015). In SA, medical research in the nursing profession has conflicting results regarding the overall job satisfaction of nurses. Two studies suggested that Saudi nurses were only moderately satisfied with their jobs (Al-Ahmadi, 2002; Alotaibi, Paliadelis, & Valenzuela, 2016). Another nursing study examining nurses' job satisfaction in a university teaching hospital found that most nurses were neither satisfied nor dissatisfied with their profession (Al-Dossary et al., 2012). However, job satisfaction studies in the physiotherapy (PT) field showed that most PTs in SA were unsatisfied with their work. One study revealed that only 37% of PTs who participated in the survey were satisfied with their career (AlEisa, Tse, Alkassabi, Buragadda, & Melam, 2015). Another study found that PTs were ambivalent regarding their job satisfaction. However, the study showed that participants were dissatisfied with many aspects of their profession (Alkassabi et al., 2018).

Many personal and occupational factors could affect job satisfaction among nurses in SA. A study showed that the improvement of nursing staff performance is strongly associated with the increase in organizational commitment and job satisfaction in the nursing profession (Al-Ahmadi, 2009). Work conditions and salary were shown to be the essential job factors of job satisfaction among nurses in SA (Al-Ahmadi, 2002). The work environment was mentioned as a source of dissatisfaction, particularly extreme workloads, and long hours (Alotaibi et al., 2016). Another study found a strong positive relationship between job satisfaction and pay, supervision, contingent rewards, co-workers, nature of work, and communication (Al-Dossary

et al., 2012). Moreover, one study revealed that almost 50% of nurses were dissatisfied with their pay (Kaddourah et al., 2013). Regarding personal factors, two studies demonstrated no significant association between age, gender, and job satisfaction (Al-Ahmadi, 2002; Al-Dossary et al., 2012). However, both studies found a positive association between job satisfaction, years of experience, and level of education. In similar findings, a study found that the lack of educational opportunities will lead to job dissatisfaction among nurses (Alotaibi et al., 2016).

Regarding physiotherapy profession in SA, the occupational and personal factors could significantly influence job satisfaction. One study revealed that some participants were not satisfied with remuneration, promotion, monetary and nonmonetary fringe benefits, working environment, and communication (Alkassabi et al., 2018). However, the same study found that most participants were satisfied with supervision, co-workers, and the nature of work. In addition, another study showed that professional growth and teamwork had the highest levels of job satisfaction (AlEisa et al., 2015). The age and gender are the essential personal components that can impact PTs' job satisfaction. Two studies found that females were more satisfied with current job compared to male (AlEisa et al., 2015; Alkassabi et al., 2018). The middle-aged physiotherapists were more pleased with their careers than younger and older PTs (AlEisa et al., 2015).

The studies that examine the job satisfaction among physicians in SA were rare. Therefore, job satisfaction among physicians in SA is still unknown. However, physicians were more likely to be unsatisfied with income, workload, improper working hours, and a lack of incentives (Aldrees et al., 2015; Kalantan, Al-Taweel, & Abdul Ghani, 1999). Additionally, lack of essential medical facilities and administrative support found to be a source of job

dissatisfaction among primary health care physicians in SA (Kalantan, Al-Taweel, & Abdul Ghani, 1999). Regarding personal factors, a study found no statistically significant association between personal factors and job satisfaction level among physicians in SA, except for gender. Research found that females physicians were more satisfied with their career than male physicians (Aldrees et al., 2015).

The understanding of job satisfaction and related factor among pharmacists is still unclear due to the lack of medical research. However, a study that aimed to assess job stress and job satisfaction among pharmacists found that the number of prescriptions dispensed seems to increase pharmacists' job satisfaction (Suleiman, 2015). An explanation could be that pharmacists who dispensed many prescriptions feel that they could use their professional skills (Suleiman, 2015). In the same study, the researcher did not find a significant relationship between age, marital status, and years of experience.

Summary

Job satisfaction is a global concern because of the potential impact on the quality and safety of patient care, and low job satisfaction being a contributing factor associated with healthcare providers leaving their current jobs and profession. Studying the factors that enhance or reduce job satisfaction among healthcare professionals is crucial. Those studies will provide important information to healthcare organizations that can be used to establish new strategies to improve their employees' job satisfaction and prevent staff turnover. The medical research about job satisfaction among medical professionals in SA is few, and the factors associated with job satisfaction are still unclear. Therefore, further study in the top should be conducted to improve public health awareness about job satisfaction.

CHAPTER III

Methodology

This chapter will discuss the methods and the instrumentation used in this study in order to answer the following research questions:

1. To what extent are Saudi Arabian Respiratory Therapists satisfied with their jobs?
2. What occupational and personal factors are associated with job satisfaction among Saudi Arabian respiratory therapists?
3. Is there an association between education background and job satisfaction?

Instrumentation

The study survey consists of two parts: the sociodemographic section and the Job Satisfaction Survey. The sociodemographic section contains nine questions: age, gender, marital status, years of experience, educational background, working hours, type of hospital, and type of unit or department. The second part is the Job Satisfaction Survey (JSS) which Paul Spector developed in 1985 (Spector, 1985). JSS is a 36-item, nine-facet scale used to examine employee attitudes toward their jobs and components of their careers. Four items are used to examine each facet, and a total score is calculated from all items. The nine facets are Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards (performance-based rewards), Operating Procedures (required rules and procedures), Coworkers, Nature of Work, and Communication. The English version of the questionnaire was used because English is the primary language in our medical field, and all participants are expected to be fluent in it .

Research Design

A cross-sectional survey was used in this study. The study survey was conducted by randomly distributing an electronic survey via social media via Twitter RT accounts, Snapchat

RT accounts, WhatsApp RT groups, and Telegram RT groups. The survey collected data from RTs to measure their job satisfaction level and investigate the personal and occupational factors that could influence job satisfaction among Saudi Arabian respiratory therapists. The respiratory therapists were able to complete the questionnaire once. Therefore, they could not repeat the questionnaire or change their responses after they submit the questionnaire.

Study Sample

The study consisted of a convenience sample of Saudi RTs who work in public or private hospitals. Inclusion criteria included current occupation as an RT and working currently in Saudi Arabia. Exclusion criteria included participants who were not willing to participate, non-Saudi RTs, and respiratory therapy students. The survey was accompanied by an invitation cover letter that explained the study's main goal and assured participants of confidentiality.

Protection of Human Subject

Georgia State University Institutional Review Board (IRB) reviewed and approved the research proposal. Confidentiality is crucial in data collection; hence the researcher informed the participants that the data which they provided were secured. The rights of the participants were reserved and protected. Respondents to this survey remained anonymous.

Ethical Consideration

Participants had the right to withdraw from the study at any time. The security and confidentiality of the obtained data were ensured by producing a password excel file from the Google survey results. Only the principal investigator and the student investigator had access to the file. There was no collection of personally identifiable information. All surveys were deleted after the data had been analyzed.

Informed Consent and Invitation Letter

All participants in this study received an invitation letter in addition to the survey. the invitation letter was displayed on the first page of the survey.

Informed consent was provided to participants before the questionnaire began. Participants were asked to consent before moving on to the questionnaire; if they refused, the survey would end before any further steps could be performed.

Data Collection

The survey was created using Google Forms and delivered via social media networks (Twitter, Snapchat, Telegram, and WhatsApp). after the IRB had approved the project, the Saudi RTs were sent an online link of survey via their social media accounts. The consent to participate in the study was sought on the first page of the survey. Participants had the right to withdraw from the study at any time.

Data Analysis

The raw data was analyzed using Statistical Package for the Social Sciences (SPSS) version 27.0, SPSS Inc., Chicago, IL to perform all descriptive statistics. Chi-Square and Fisher's exact tests were used to examine the association between sociodemographic and job satisfaction. The effect and influence of personal and occupational factors were compared by using one-way Analysis of variance (ANOVA).

Chapter VI

Results

The purpose of the study was to identify the job satisfaction level among Saudi Arabian respiratory therapists. Also, this study aimed to determine the job and personal characteristic factors that influence job satisfaction. This study also investigated the influence of educational degrees and background on job satisfaction.

Research Questions

1. To what extent are Saudi Arabian Respiratory Therapists satisfied with their jobs?
2. What occupational and personal factors are associated with job satisfaction among Saudi Arabian respiratory therapists?
3. Is there an association between education background and job satisfaction?

Demographic Data

The study collected consisted of a convenience sample of Saudi Arabian respiratory therapists (RT). A total of 140 RTs participated and completed the research questionnaire. The mean age of responders was 28.51 ($SD \pm 6.38$), and the mean years of experience were 4.88 with a standard deviation of 5.82 (Table1).

Table 1: Descriptive statistics among RTs

Demographic variable	Number of participants	Mean	Standard deviation
AGE	140	28.51	6.386
Years of experience	140	4.88	5.822

Most participants were male (n=92, 65.7%), while females represent 34.3% of participants (n=48). More than half of responders were single (n=75, 53%); followed by married responders (n=52, 37.1%); and married and with children (n=13, 9.3%). Approximately 82.1% of RTs held a bachelor's degree (n=115), whereas master's degree holders were 15.7% (n=22), and only 2.1% of responders held a diploma's degree (n=3). None of the participants held a doctoral degree. The majority of RTs graduated from SA (N=114, 81.4%); followed by United States (n=24, 17.1%), UK (n=1, 0.7%), and Iraq (n=1, 0.7%). Among all respondents, 76.4% of responders typically worked the 12 hours shifts (n=107), and 23.6% typically worked 8-hour shifts (n=33). Most participants had alternative shift duty (n=92, 65.7%), whereas 30.7% of participants had day shift duty (n=43), and only 3.6% of responders had night shift (n=5). The vast majority of participants worked in critical care units (n=111, 79.3%); followed by noncritical care unit (n=47, 33.6), educational sections (n=24, 17.1%), administration (n=23, 16.4%), and outpatient clinics (n=6, 4.3%). All frequencies and percentages of demographics are shown in Table 2.

Table 2: Descriptive statistics among RTs

Demographic Variable		Number of Participants	Percent
AGE	20-25 Yrs	62	44.3
	26-30 Yrs	40	28.6
	31-35 Yrs	20	14.3
	36 Yrs and above	18	12.9
Gender	Male	92	65.7
	Female	48	34.3
Marital Status	Single	75	53.6
	Married without children	52	37.1

	Married and have children	13	9.3
Educational degree	Diploma	3	2.1
	Bachelor's	115	82.1
	Master's	22	15.7
Place of education	Saudi Arabia	114	81.4
	United State of America	24	17.1
	Uk	1	.7
	Iraq	1	.7
Years of Experience	5 Yrs and Less	104	74.3
	6 - 10 Yrs	16	11.4
	11 Yrs and more	20	14.3
Daily Working Hours	8 hours	33	23.6
	12 hours	107	76.4
Shift Duty	Day	43	30.7
	Night	5	3.6
	Alternative	92	65.7
Work Area	Critical care	111	79.3%
	Non-critical care	47	33.6%
	Administration	23	16.4%
	Education	24	17.1%
	Outpatient	6	4.3%

Findings Related to Research Question 1

The first purpose of the study was to assess job satisfaction levels among Saudi Arabian RTs. The first research question asked, "To what extent are Saudi Arabian respiratory therapists are satisfied with their jobs?". RTs answered this question via 36 items on a scale of 1 to 6 ("1- disagree very much", " 2. Disagree moderately", " 3. Disagree slightly", " 4. Agree slightly", " 5. Agree moderately", " 6. Agree very much"). Those 36 items consist of 9 facet scale, and each facet assesses one aspect of the job. Each aspect is assessed with four items, and a total score is computed from all items. Aspects of job assessed by 9 facet scale are pay,

promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication. Cronbach's alpha test was done to total job satisfaction and all nine-survey scale. The internal consistency reliabilities (coefficient alpha) are listed in Table 3. Score interpretation of the Job Satisfaction Survey (JSS) is listed in table 4.

Table 3: Cronbach's alpha level of survey scale.

Subscale	Cronbach's alpha level
Payment	0.675
Promotion	0.611
Supervision	0.759
Fringe Benefits	0.539
Contingent Rewards	0.584
Operating Conditions	0.577
Coworkers	0.660
Nature of work	0.735
Communication	0.570
Total	0.865

Table 4: Job Satisfaction Survey (JSS) scoring

Categorization	Dissatisfaction	Ambivalent	Satisfaction
Total Job Satisfaction Score	36 to 108	>108 to <144	144 to 216
Subscales Scale Score	4 to 12	>12 to <16	16 to 24
Job Satisfaction Mean	1 to 3	>3 to <4	4 to 6

According to the JSS, the mean overall JSS score for participants in this research fell into the "ambivalent" group. The mean total JSS score for all participants was 120.15 (SD±20.2). Demographic data of the mean total job satisfaction score among Saudi Arabian RT are tabulated in Table 5.

Although job satisfaction level among RTs was found to be ambivalent or neutral, the results showed that RTs were dissatisfied with some job aspects. RTs were found to be unsatisfied with their payment, promotion, fringe benefits, and contingent rewards. In contrast, the research showed that RTs were satisfied with their nature of work and coworkers' relationships. Supervision, operating conditions, and communication were found to be within the ambivalent category on the JSS score.

Table 5: Demographic data of the mean total JSS score.

Demographic Variable		Satisfaction	Total JSS Score	
		Status	Mean	Std. deviation
	Score	Ambivalent	120.15	20.2

Overall Sample	Mean	Ambivalent	3.33	0.56
AGE	20-25 Yrs	Ambivalent	121.01	20.85
	26-30 Yrs	Ambivalent	116.20	17.96
	31-35 Yrs	Ambivalent	117.85	19.73
	36 Yrs and above	Ambivalent	128.55	22.30
Gender	Male	Ambivalent	120.04	19.68
	Female	Ambivalent	120.37	21.51
Marital Status	Single	Ambivalent	119.16	20.15
	Married	Ambivalent	122.57	19.83
	Married and have children	Ambivalent	116.23	22.95
Educational degree	Diploma	Ambivalent	141.00	33.64
	Bachelor	Ambivalent	119.01	18.48
	Master	Ambivalent	123.27	25.94
Place of education	Saudi Arabia	Ambivalent	119.38	20.88
	United State of America	Ambivalent	122.29	16.87
	Uk	Satisfaction	151.00	0.00
	Iraq	Ambivalent	126.00	0.00
Years of Experience	5 Yrs and Less	Ambivalent	119.38	19.61
	6 - 10 Yrs	Ambivalent	119.12	17.07
	11 Yrs and more	Ambivalent	125.00	25.60

Daily Working Hours	8 hours	Ambivalent	126.87	19.94
	12 hours	Ambivalent	118.08	19.98
Shift Duty	Day	Ambivalent	124.81	15.67
	Night	Ambivalent	116.00	16.40
	Alternative	Ambivalent	118.20	22.04
Work Area	Critical care	Ambivalent	118.82	20.83
	Non-critical care	Ambivalent	121.51	21.70
	Administration	Ambivalent	125.95	17.97
	Education	Ambivalent	130.29	23.024
	Outpatient	Ambivalent	117.83	28.44

*JSS: Job Satisfaction Survey.

Findings Related to Research Question 2

The second question asked, "What are occupational and personal factors associated with job satisfaction among Saudi Arabian respiratory therapists?" Independent Samples T-Tests were used to measure the difference between demographic data consisting of binary variables, such as gender. One-Way ANOVA tests were used to assess the difference between demographic data with more than two categories: age groups, marital status, educational degree, place of education, and years of experience. Our research showed no significant statistical difference between personal factors and overall job satisfaction among Saudi Arabian RTs (Table 6).

Table 6: The difference between personal factors and total JSS score

Personal Factors	Total JSS Score
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		Mean	Std. deviation
AGE	20-25 Yrs	121.01	20.85
	26-30 Yrs	116.20	17.96
	31-35 Yrs	117.85	19.73
	36 Yrs and above	128.55	22.30
	ANOVA test	F= 1.68, P= 0.17	
Gender	Male	120.04	19.68
	Female	120.37	21.51
	T-test	T= -0.92, P= 0.92	
Marital Status	Single	119.16	20.15
	Married	122.57	19.83
	Married and have children	116.23	22.95
	ANOVA test	F= 0.70, P= 0.49	
Years of Experience	5 Yrs and Less	119.38	19.61
	6 - 10 Yrs	119.12	17.07
	11 Yrs and more	125.00	25.60
	ANOVA test	F= 0.66, P= 0.51	

JSS: Job Satisfaction Survey.

Although there was no significant difference between personal factors and overall job satisfaction, there was a significant difference between age groups and one aspect of the job (Nature of Work, $p=0.039$). Saudi RTs who were 36 or older were more satisfied with their nature of work than other age groups. (Table 7).

Table 7: The difference in job satisfaction score among age groups on nature of work.

Age Groups	Nature of Work (\pm SD)
20-25 Yrs	16.31 (\pm 4.38)
26-30 Yrs	15.70 (\pm 4.06)
31-35 Yrs	16.20 (\pm 3.48)
36 Yrs and above	19.00 (\pm 3.41)
ANOVA test	F= 2.86, P= 0.039

There was a significant association between payment and job satisfaction among RTs. Participants were unsatisfied with their payment with mean of 10.84 (SD \pm 4.11). Promotion also found to be unsatisfied work-related factor among RTs with mean of 11.88 (SD \pm 3.57). In addition, participants were not satisfied with fringe benefits of their work with mean of 11.11 (SD \pm 3.57). RTs also found to be unsatisfied with contingent rewards in their work with mean of 11.66 (SD \pm 3.57). (Table 8)

On the other hand, RTs found to be satisfied with their nature of work with mean 16.46 (SD \pm 4.14). Current research showed that participants were satisfied with their coworkers' relationship with mean of 16.13 (SD \pm 3.31). (Table 8)

In this research, there was no significant association between job satisfaction and the remaining work-related factors such as operating condition, supervision, and communication within organization. (Table 8)

Table 8: The mean values of the Job Satisfaction Survey domains among RTs

Work factors	Dissatisfied (4 – 12)	Ambivalent (12 – 16)	Satisfaction (16 – 24)
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Pay Mean	10.84
Promotion Mean	11.88
Supervision Mean	15.15
Fringe Benefits Mean	11.11
Contingent Rewards Mean	11.66
Operating Conditions Mean	12.77
Coworker Mean	16.13
Nature of Work Mean	16.46
Communication Mean	14.16

There was a significant association between overall job satisfaction and daily working hours. Although job satisfaction of both groups (RTs work for 8 hrs, RTs work for 12 hrs) was within ambivalent category on JSS, there was significant difference ($p = 0.029$) between two groups. RTs who work for 8 hrs found to be more satisfied compared to those who work for 12 hrs. (Table 9)

Table 9: The comparison between daily working hours components and total JSS score.

Daily Working Hours	Total JSS score (\pm SD)
8 hours	126.87 (\pm 19.94)
12 hours	118.08(\pm 19.98)
Independent Sample T-test	T= 2.21, P= 0.029

*JSS: Job Satisfaction Survey.

Findings Related to Research Question 3

Third question asked, "Is there an association between education background and job satisfaction?". In this research, there was no statistically significant association ($P= 0.13$) between educational degree and total job satisfaction score. Also, place of education was found to be not significantly associated ($P= 0.42$) with the overall job satisfaction among participants. (Table 10)

Table 10: Comparison between education background factors and total JSS score

Educational Background Factors		Total JSS Score (\pm SD)
Education Degree	Diploma	141 (\pm 33.64)
	Bachelor	119.01 (\pm 18.48)
	Master	123.27 (\pm 25.94)
	ANOVA test	F= 2.06, P= 0.13
Place of Education	Saudi Arabia	119.38 (\pm 20.88)
	United State of America	122.29 (\pm 16.87)
	Uk	151 (\pm 0.00)
	Iraq	126 (\pm 0.00)
	ANOVA test	F= 0.94, P= 0.42

*JSS: Job Satisfaction Survey.

However, there was a significant difference ($P= 0.40$) between RTs who studied in US and those studied in SA in their job satisfaction regarding nature of work. (Table 11)

Table 11: Comparison between place of education and nature of work.

Place of Education	Nature of Work (\pm SD)
Saudi Arabia	16.09 (\pm 4.28)

United States	18.00 (± 3.07)
Independent Sample T-test	T= -2.07, P= 0.040

Summary:

A total of 140 responders participated and completed the research survey. The research result revealed that overall job satisfaction among Saudi Arabian RTs were ambivalent or neutral with mean of 120.15 ($SD \pm 20.2$). However, research found that payment (mean = 10.84), promotion (mean = 11.88), fringe benefits (mean = 11.11), and contingents rewards (mean = 11.66) were associated with dissatisfaction among RTs. In contrast, nature of work (mean = 16.46), and coworkers (mean = 16.13) found to be associated with improving job satisfaction in Saudi Arabian RTs. In this research, there was no significant association between personal factors and overall job satisfaction. However, there was a significant difference ($P = 0.039$) between age groups regarding nature of work satisfaction. also, there was a significant difference ($P = 0.029$) between daily working hours groups and overall job satisfaction. RTs who work for 8 hrs found to be more satisfied their job compared to RTs who work for 12 hrs. Regarding the influence of educational background on job satisfaction, there was no significant association between educational degree, place of education, and overall job satisfaction. However, there was a significant difference ($P = 0.040$) between RTs who studied in US, and those who studied in SA in nature of work satisfaction. RTs who studied in US found to be more satisfied with their nature of work compared to RTs studied in SA.

Chapter V

Discussion

The purpose of this chapter is to discuss the results from Chapter VI. The chapter includes six major parts: an overview of the study, discussion of results, implications for research, recommendations for future research, limitations, and conclusions.

Overview of the study

This study aimed to answer three questions to measure job satisfaction levels among Saudi Arabian RTs, determine the personal and work-related factors that cause job satisfaction, and investigate the influence of educational background on job satisfaction. The research questions discussed here are the following:

1. To what extent are Saudi Arabian Respiratory Therapists are satisfied with their jobs?
2. What are occupational and personal factors associated with job satisfaction among Saudi Arabian respiratory therapists?
3. Is there an association between education background and job satisfaction?

Discussion of Results

The first research question asked, "To what extent are Saudi Arabian respiratory therapists are satisfied with their jobs?" our study finding revealed that overall job satisfaction among Saudi Arabian RTs was found to be ambivalent. Therefore, our study findings didn't clarify whether therapists are satisfied or dissatisfied with their work. This finding is consistent with two studies that were conducted in Saudi Arabia (SA). Alkassabi and colleagues (2018), who studied job satisfaction among physiotherapists (PT) in SA, reported that PTs were ambivalent regarding their job satisfaction. Similarly, a study of nurses' job satisfaction in a university teaching hospital discovered that most nurses were neither satisfied nor dissatisfied with their

work (Al-Dossary et al., 2012). These two studies used the Job Satisfaction Survey (JSS), which was used in this study. An explanation of finding ambivalent results in this study could be due to the survey structure that uses a 6-points scale with two neutral values of 3 and 4.

The second question asked, "What are work and personal characteristic factors causing job satisfaction among Saudi Arabian respiratory therapists?" the research results found no statistically significant association between overall job satisfaction and personal factors. The only significant difference was between RTs who are 36 years old and other age groups regarding the nature of work. This result is similar to some studies that evaluated job satisfaction among healthcare professionals. In a similar finding, three studies conducted in SA found no significant association between job satisfaction and age and marital status (Al-Ahmadi, 2002; Suleiman, 2015). In addition, AL-Dossary and colleagues revealed no strong association between job satisfaction, age, and gender among nurses in SA.

However, our finding contradicts several studies that revealed a strong association between job satisfaction and personal factors. Two studies demonstrated that older employees with long years of experience were more satisfied than their colleagues (Domagała et al., 2018; Liu et al., 2012). Also, Domagala and colleagues found that married respondents with at least one child were more satisfied than single respondents. The educational degree also was found to be strongly correlated to job satisfaction in some previous studies. Two studies in nursing suggested that nurses with lower academic degrees were more satisfied with their careers than those with high educational degrees (Al-Ahmadi, 2002; Kaddourah et al., 2013). Gender also was found to be associated with overall job satisfaction among healthcare professionals. Three studies claimed that females were more satisfied than males in their jobs (AlEisa et al., 2015; Alkassabi et al., 2018; Bello et al., 2018)

Regarding occupational factors, this research revealed a significant association between job satisfaction and many job aspects. Our result found that RTs were not satisfied with their payment. Therefore, increasing Saudi Arabian RTs' salaries will improve their job satisfaction. This finding is similar to Kaddourah's study (2013), finding that most unsatisfied nurses were not satisfied with their wages. Also, two studies conducted in SA showed that physicians were unsatisfied with their monthly income and lack of incentives (Aldrees et al., 2015; Kalantan, Al-Taweel, & Abdul Ghani, 1999). A study of primary care physicians' work satisfaction discovered that 45 percent of those surveyed were dissatisfied with their pay (Behmann et al., 2012).

Another finding in our research was that RTs were unsatisfied with their chance of promotion in their work. The promotion in job could include the chance to be supervisor, RT manager, or clinical instructor. As a result, providing more fair opportunities for advancement and personal growth within their organization will increase RTs' satisfaction. AlEisa and colleagues (2015) demonstrated that professional development was associated with high job satisfaction among Saudi Arabian PTs. In addition, another study found that having professional growth chances was a strong predictor of job satisfaction (Randolph & Johnson, 2005).

The research study results also found that RTs were unsatisfied with fringe benefits and contingent rewards in their jobs. Fringe benefits are extra benefits that RTs could receive in their job such as critical care allowance or transportation allowance. In similar findings, Liu and colleagues (2012), who studied job satisfaction and intention to leave the job among nurses in China, found most participants were not satisfied with extrinsic rewards in their career. Another study conducted among nurses in SA concluded that most responders were not

happy with fringe benefits and contingent rewards (Al-Dossary, Vail, & Macfarlane, 2012). Kalantan and colleagues (1999) found that 78.3% of primary healthcare physicians in Riyadh were unsatisfied with their financial incentives.

Our result also demonstrated a significant association between daily working hours and job satisfaction among RTs. They found that RTs who work for 8 hrs were more satisfied with their job than those who work for 12 hrs. In similar findings, Alotaibi and colleagues (2016) found that working for long hours was associated with dissatisfaction among Saudi Arabian nurses. Another study found long work time was a source of dissatisfaction among physicians in work-related 'burden' (Bovier & Perneger, 2003). This is consistent with our findings from this study.

On the other hand, our findings showed that RTs were satisfied with two aspects of jobs: nature of work and coworkers' relationship. This finding is consistent with AL-Dossary's study (2012) that found nurses in Saudi Arabian university teaching hospitals were satisfied with their colleagues and the nature of work. Similarly, Alkassabi and colleagues (2018) revealed that most participants scored on the upper end of the ambivalent range, denoted as "slightly agree or slightly satisfied" regarding coworker relationship and nature of work. Another study found that physicians satisfied with their coworkers' relationship and nature of work were more likely to have a high job satisfaction level (Bello et al., 2018).

The third question asked, "Is there any association between education background and job satisfaction?". Research findings showed no strong association between job satisfaction, educational degree, or place of education. This result contradicts multiple studies that demonstrated a significant association between academic degrees and job satisfaction (Björk et al., 2007; Kaddourah, Khalidi, Abu-Shaheen, & Al-Tannir, 2013; Liu et al., 2012). Björk et al.

(2007) revealed that nurses with a master's degree or other continuing education degrees were more satisfied than those without additional education. In similar findings, another study found Nurses with an associate degree were less satisfied with their professions than those with a diploma or a bachelor's degree (Liu et al., 2012). In contrast, Kaddourah et al. (2013) found that nurses with a diploma were more pleased in their professions than nurses with a bachelor's degree.

Although research results showed no association between overall job satisfaction and educational background, it showed a significant difference between RTs who studied in the US and those in SA regarding the nature of work. RTs who studied in the US were more satisfied with their nature of work than those who studied in SA. The difference between RTs who graduated from the US and those who graduated from SA is not clear. An explanation could be that RTs who studied in the US are eligible to take National Board for Respiratory Care that will earn them some recognition within their organization compared to RTs, who studied in SA, who are not eligible to take this qualification.

The reliability coefficient (Cronbach's alpha) for the total job satisfaction score was 0.86 in this study. The reliability coefficients (Cronbach's alpha) for nine subscales ranged from 0.53 to 0.75. Low values could be due to the low items that each subscale contains. The subscales with ten items or less commonly have low Cronbach's alpha value (Pallant. 2016). Also, Spector's (1985) finding reported that the Cronbach's alpha values for subscales ranged from 0.60 to 0.82, while Cronbach's alpha for total job satisfaction score was 0.91 in a study of 2870 participants.

Implications for Future Research

The study findings provide insight into Saudi Arabian job satisfaction levels, personal and work-related factors that could influence job satisfaction among RTs. Also, it investigates the influence of educational background on job satisfaction. The study's information can be used by healthcare organizations and respiratory care (RC) departments in SA to establish new strategies to improve job satisfaction among RTs. Also, research findings can be used to increase healthcare organization and RC department awareness regarding work-related factors that negatively impact the job satisfaction of their employees. The study's information also can be used as baseline data in further studies that will focus on job satisfaction among Saudi Arabian RTs.

Study limitations

The current study has several limitations. First, the study's findings cannot be generalized since they were a convenience sample and don't reflect the entire population. Second, an online questionnaire was used to collect data for this study, then circulated via social media sites. This could have limited the research and made the survey less likely to be completed. This type of recruitment strategy is also subject to non-response bias. Third, the survey was distributed while the COVID-19 pandemic was still surging in SA, and the influence of COVID-19 on job satisfaction was not measured. Therefore, this study couldn't identify the impact of the COVID-19 pandemic on Saudi RTs. Finally, the study used an online survey that was sent to online groups for participation. Therefore, it is difficult to assure that all participants in this study were RTs. However, the invitation letter clearly stated that this survey was designed for RT participants, and only RTs staff can participate in the survey.

Recommendations for Future Research

Further studies are highly recommended because of the lack of research that measures job satisfaction among Saudi Arabian RTs. The replication of the study with a more significant number of participants is recommended to validate and generalize this study's findings. Also, investigating other personal and work-related factors such as region, and type of hospital, are advised to clarify the causes of job satisfaction. The current study focuses on job satisfaction among RTs who work at hospitals. Therefore, further studies are recommended to include RTs who work in the academic field.

Conclusions

To the best of our knowledge, this research is the first study to examine job satisfaction among Saudi Arabian RTs, investigating the personal and work-related factors that influence job satisfaction and assessing the educational background effect on job satisfaction. Overall, our study showed that job satisfaction among Saudi Arabian RTs was ambivalent. However, RTs were not satisfied with their payment, promotion, fringe benefits, and contingent rewards, while they were satisfied with coworkers' relationships and nature of work. Personal factors and educational background were shown to be not significantly associated with overall job satisfaction. Further study is needed to understand job satisfaction among Saudi Arabian RTs and factors that could influence job satisfaction since these studies will increase healthcare organizations' and RC departments' awareness about the job satisfaction of their RT employees.

Appendix A: Permission to Use Job Satisfaction Survey

9/1/21, 12:26 AM

Mail - Sale7 AL osaimi - Outlook

RE: Job Satisfaction Survey

Paul Spector <paul@paulspector.com>

Mon 8/30/2021 1:25 PM

To: Sale7 AL osaimi <sal.moh@hotmail.com>

Dear Saleh:

You have my permission to use the original JSS in your research. You can find copies of the scale in the original English and several other languages, as well as details about the scale's development and norms, in the [Paul's No Cost Assessments section](https://paulspector.com) of my website: <https://paulspector.com>. I allow free use for noncommercial research and teaching purposes in return for sharing of results. This includes student theses and dissertations, as well as other student research projects. Copies of the scale can be reproduced in a thesis or dissertation as long as the copyright notice is included, "Copyright Paul E. Spector 1994, All rights reserved." Results can be shared by providing an e-copy of a published or unpublished research report (e.g., a dissertation). You also have permission to translate the JSS into another language under the same conditions in addition to sharing a copy of the translation with me. Be sure to include the copyright statement, as well as credit the person who did the translation with the year.

The JSS-2 is an improved commercial version for which there is a fee.

For additional assessment resources including an archive of measures developed by others, check out the assessment section of my website for organizational measures <https://paulspector.com/assessments/> and my companion site for general and mental health measures: <https://www.stevenericspector.com/mental-health-assessment-archive/>

Thank you for your interest in the JSS, and good luck with your research.

Best,

Paul Spector, PhD
Adjunct Professor, School of Information Systems and Management
Muma College of Business
Distinguished Professor Emeritus, Department of Psychology
University of South Florida
Tampa, FL 33620
Pspector@usf.edu
Website: <https://paulspector.com/>

From: Sale7 AL osaimi <sal.moh@hotmail.com>

Sent: Sunday, August 29, 2021 3:04 AM

To: Paul Spector <paul@paulspector.com>

Subject: Job Satisfaction Survey

Hello ,

I am currently studying at Georgia State University in Atlanta as a master's student in Respiratory Therapy. I am researching job satisfaction Arabian respiratory therapists. I am planning to use Job Satisfaction Survey (JSS) in my thesis research Saudi among

I am writing this email to take your consent to use JSS questionnaire in my thesis research.

could you please give a permission to use JSS in my research?

Your cooperation is highly appreciated

Saleh Alosaimi

Appendix B: Survey

Section 1: Sociodemographic Data:

Please answer each of the following questions by selecting one answer that describes you:

1- What is your age?

_____ years

2- What is your gender?

- a) Male
- b) Female

3- What is your marital status?

- a) Single
- b) Married
- c) Married and have children

4- What is your educational level?

- a) Diploma
- b) Bachelor
- c) Master
- d) Doctoral

5- From where did you earn your respiratory therapy certification?

- a) Saudi Arabia
- b) United State of America
- c) Others

6- How many years of experience you are working as a respiratory therapist?

- a) _____ years

7- What is your role?

- a) Administration
- b) Education
- c) Critical care (ICU and ER)
- d) Non-critical care (ward and long-term)
- e) Outpatient (such as diagnostics and pulmonary rehabilitation)

8- How many hours do you work per day?

- a) 12 hours
- b) 8 hours

9- What is your shift?

- a) Day
- b) Night
- c) Alternative

Section 2: Job Satisfaction Survey developed by Paul E. Spector:

	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	
1	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5 6
2	There is really too little chance for promotion on my job.	1	2	3	4	5 6
3	My supervisor is quite competent in doing his/her job.	1	2	3	4	5 6
4	I am not satisfied with the benefits I receive.	1	2	3	4	5 6
5	When I do a good job, I receive the recognition for it that I should receive.	1	2	3	4	5 6
6	Many of our rules and procedures make doing a good job difficult.	1	2	3	4	5 6
7	I like the people I work with.	1	2	3	4	5 6
8	I sometimes feel my job is meaningless.	1	2	3	4	5 6
9	Communications seem good within this organization.	1	2	3	4	5 6

10	Raises are too few and far between.	1	2	3	4	5	6
11	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5	6
12	My supervisor is unfair to me.	1	2	3	4	5	6
13	The benefits we receive are as good as most other organizations offer.	1	2	3	4	5	6
14	I do not feel that the work I do is appreciated.	1	2	3	4	5	6
15	My efforts to do a good job are seldom blocked by red tape.	1	2	3	4	5	6
16	I find I have to work harder at my job because of the incompetence of people I work with.	1	2	3	4	5	6
17	I like doing the things I do at work.	1	2	3	4	5	6
18	The goals of this organization are not clear to me.	1	2	3	4	5	6
19	I feel unappreciated by the organization when I think about what they pay me.	1	2	3	4	5	6
20	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
21	My supervisor shows too little interest in the feelings of subordinates.	1	2	3	4	5	6
22	The benefit package we have is equitable.	1	2	3	4	5	6
23	There are few rewards for those who work here.	1	2	3	4	5	6
24	I have too much to do at work.	1	2	3	4	5	6
25	I enjoy my coworkers.	1	2	3	4	5	6
26	I often feel that I do not know what is going on with the organization.	1	2	3	4	5	6
27	I feel a sense of pride in doing my job.	1	2	3	4	5	6
28	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6
29	There are benefits we do not have which we should have.	1	2	3	4	5	6
30	I like my supervisor.	1	2	3	4	5	6
31	I have too much paperwork.	1	2	3	4	5	6
32	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5	6
33	I am satisfied with my chances for promotion.	1	2	3	4	5	6
34	There is too much bickering and fighting at work.	1	2	3	4	5	6

35	My job is enjoyable.	1	2	3	4	5	6
36	Work assignments are not fully explained.	1	2	3	4	5	6

* Copyright Paul E. Spector 1994, All rights reserved

Appendix C: IRB Approval



INSTITUTIONAL REVIEW BOARD

Mail: P.O. Box 3999 In Person: 3rd Floor
Atlanta, Georgia 30302-3999 58 Edgewood
Phone: 404/413-3500 FWA: 00000129

September 03, 2021

Principal Investigator: Douglas Gardenhire

Key Personnel: Alosaimi, Saleh M; Gardenhire, Douglas

Study Department: Georgia State University, Respiratory Therapy

Study Title: Job Satisfaction Among Saudi Arabian Respiratory Therapists

Submission Type: Exempt Protocol Category 2

IRB Number: H22123

Reference Number: 366921

Determination Date: 09/02/2021

Status Check Due By: 09/01/2024

The above-referenced study has been determined by the Institutional Review Board (IRB) to be exempt from federal regulations as defined in 45 CFR 46 and has evaluated for the following:

1. Determination that it falls within one or more of the eight exempt categories allowed by the institution; and
2. Determination that the research meets the organization's ethical standards

If there is a change to your study, you should notify the IRB through an Amendment Application before the change is implemented. The IRB will determine whether your research continues to qualify for exemption or if a new submission of an expedited or full board application is required.

A Status Check must be submitted three years from the determination date indicated above. When the study is complete, a Study Closure Form must be submitted to the IRB.

This determination applies only to research activities engaged in by the personnel listed on this document.

It is the Principal Investigator's responsibility to ensure that the IRB's requirements as detailed

in the Institutional Review Board Policies and Procedures For Faculty, Staff, and Student Researchers (available at gsu.edu/irb) are observed, and to ensure that relevant laws and regulations of any jurisdiction where the research takes place are observed in its conduct.

Any unanticipated problems resulting from this study must be reported immediately to the University Institutional Review Board. For more information, please visit our website at www.gsu.edu/irb.

Sincerely,

A handwritten signature in black ink that reads "Jamie f Zaikov".

Jamie Zaikov, IRB Member

Appendix D: Informed Consent and Invitation Letter

Informed Consent

Title: Job Satisfaction Among Saudi Arabian Respiratory Therapists

Principle Supervisor: Douglas S. Gardenhire, EdD, RRT-NPS, FAARC

Student Principal Investigator: Saleh M Alosaimi, BSc, RT.

Dear Respiratory Therapist:

You are invited to take part in a research study. It is completely up to you whether or not you decide to participate in the study. The study title is " Job Satisfaction Among Saudi Arabian Respiratory Therapists", and its purpose is to measure the job satisfaction level among Saudi Arabian respiratory therapists toward their job. Also, the study aims to investigate the personal and occupational factors that could influence or impact the job satisfaction. the study survey duration will last from 15 to 20 minutes.

In the survey, you will be asked to answer 9 sociodemographic questions such as age gender, years of experience, etc. Also, you will be asked to answer 36 questions to examine your job satisfaction in different aspects of job. You will not be exposed to any more risks than you would on a usual day if you participate in this study.

Purpose:

Purpose of the study is to measure the job satisfaction level among Saudi Arabian respiratory therapists toward their job. Also, the study aims to investigate the personal and occupational factors that could influence or impact the job satisfaction. You have been

invited to participate in this research study because you are a Saudi respiratory therapist with at least 6 months of experience.

Procedure

If you decide to take part, you will fill out a survey with 45 questions. Confidentiality is critical in data collection, and the researcher will assure participants that the information they provide is secure, eliminating any fear of victimization. The rights of the participants are always reserved and secured. This survey's participants will remain anonymous.

If you choose to participate, you will be prompted to click the link and check the box that says, "I agree." Following that, you will be required to complete a questionnaire.

- A total of 45 questions will be asked.
- The questions are a Likert scale from 1 to 6 (1= strongly disagree, 6= strongly agree) and fill in the blank questions.
- Please select/ check the best option in favor of each question.
- This survey will take about 15-20 minutes to complete.

Risks

You will not face any more risks in this study than you would in a typical day. Although no harm is anticipated as a result of this study, please notify the research team as soon as possible if you feel you have been harmed.

Benefits

This study is not designed to benefit you. We would like to research about overall job satisfaction among Saudi Arabian respiratory therapists, as well as personal and work-related factors that affect job satisfaction.

Voluntary Participation and Withdrawal

You are not obliged to participate in this research. You have the opportunity to drop out at any time if you decide to participate in the study. You have the option to skip questions or withdraw from the survey at any time. Confidentiality is critical in data collection, and the researcher will assure participants that the information they provide is secure, eliminating any fear of victimization. The rights of the participants are always reserved and secured. This survey's participants will remain anonymous.

Contact Information

Please Contact Dr. Douglas S. Gardenhire at dgardenhire@gsu.edu in case any of the following occur:

- If you have questions about the study or your part in it.
- If you have questions, concerns, or complaints about the study.

The IRB at Georgia State University reviews all research that involves human participants. You can contact the IRB if you would like to speak to someone who is not involved directly with the study. You can contact the IRB for questions, concerns, problems, information, input, or questions about your rights as a research participant. Contact the IRB at 404-413-3500 or irb@gsu.edu.

Consent

Your completion and submission of the survey implies that you agree to participate in this research. You may withdraw at any moment by not completing this survey or by clicking the disagree option.

Thank you in advance for your cooperation

Sincerely,

Douglas S. Gardenhire, EdD, RRT-NPS, FAARC

Saleh M Alosaimi, BSc,RT

Please note: If you agree to participate in this research, please continue with the survey.

You can print a copy of the form for your records.

☐ I Agree

☐ I Disagree

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