Job Satisfaction and Stress Level of the Occupational Health Nurse

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Job Satisfaction and Stress Level of the Occupational Health Nurse

by

Angela Ballard

A thesis submitted to the faculty of
Gardner-Webb University Hunt School of Nursing
in partial fulfillment of the requirements for the
Master of Science in Nursing Degree

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Angela Ballard

Approved by:  
Gayle L Casterline, PhD, RN, AHN-BC

Date  

Date
Abstract

Occupational health nursing is a specialized field of nursing, employing only about 1% of total U.S. nurses (Moore & Moore, 2014). For this reason, it is often difficult to recruit prospective occupational health nurses (OHN). The need for OHN has grown in the auto industry in 2014 and 2015 due to increased production rates. It is important to determine whether or not current OHN, specifically in the auto manufacturing field, are satisfied and plan to stay in their current positions. Identifying reasons for job stress and job satisfaction helps leadership to correct deficiencies and develop and maintain a positive work environment that leads to the retention of the OHN. Thirty-eight occupational health nurses, working in five auto manufacturing plants in the South, volunteered to describe overall job satisfaction and stress in general as measured anonymously through the Job Descriptive Index, Job in General Index, and Stress in General Index (Bowling Green State University, 2009). Nurses in this sample were generally satisfied with their jobs and identified low workplace stress levels. Nurses were most satisfied with supervision, coworkers, and their jobs in general. The lowest satisfaction scores were for pay and opportunities for promotion. Based on this study, nurse leadership should implement pay increases for the OHN and also implement tiered levels of promotion for nurses to advance professionally. Research concerning job satisfaction and stress levels of occupational health nurses needs to be expanded to include multiple occupational settings.
Acknowledgments

I thankfully acknowledge the time, effort, and support put forth by the nurse managers at the five major auto manufacturers in this study. I appreciate your promotion of this study, willingness to participate, and your unending support, as your group participated in this study. Without you, and the occupational health nurses at your sites, this study would not have been possible and I am indebted.

I am very grateful for the support given to me by my coworkers, my manager, and colleagues in the auto manufacturing and healthcare industries during this study. My questions seemed never-ending, I’m sure, and I’m grateful for your willingness to listen and assist me with this endeavor.

I am forever grateful and thankful for the support and guidance of my instructor, Gayle Casterline, PhD, RN, AHN-BC. I know you thought we would grow old together, while I was intently trying to complete this study. Alas, the study is completed, and I am very thankful for your patience, wisdom, and knowledge.

Finally, I would like to acknowledge my son, Drew Ballard. He has shown much love, patience, and support to me as I have worked on this thesis, month after month. I am very thankful for him and I hope I can be an excellent example of nursing, as he too embarks on nursing as a passion and a career.
Table of Contents

CHAPTER I: INTRODUCTION

Significance.................................................................................................................................3
Purpose........................................................................................................................................3
Conceptual Framework...............................................................................................................4
Theoretical Framework................................................................................................................5

CHAPTER II: LITERATURE REVIEW

Occupational Health Nurse Job Satisfaction.................................................................7
Job Satisfaction and Nurse Empowerment .................................................................8
Job Satisfaction and Nurses’ Work Environment...........................................................9
Nurse Retention......................................................................................................................11
Nurses’ Stress Level...............................................................................................................11
Summary.................................................................................................................................14

CHAPTER III: METHODOLOGY

Study Design............................................................................................................................15
Setting and Sample ................................................................................................................15
Measurement Methods..........................................................................................................15
Design for Data Collection ..................................................................................................17
Protection of Human Subjects ..............................................................................................18
Data Analysis..........................................................................................................................18

CHAPTER IV: RESULTS

Data Collection Procedure.....................................................................................................19

Results of the Job Descriptive Index (JDI) / Job in General (JIG) .........................20
Results of the Stress in General Index (SIG) ................................................................. 27

CHAPTER V: DISCUSSION

Summary of Findings ........................................................................................................ 30
Implications for Findings .................................................................................................. 33
Application to Theoretical/Conceptual Framework ....................................................... 34
Limitations ....................................................................................................................... 35
Implications for Nursing ................................................................................................. 35
Recommendations/Conclusion ........................................................................................ 36

REFERENCES .................................................................................................................. 37

APPENDICES

A: The Job Descriptive Index .......................................................................................... 39

B: Cover Letter ............................................................................................................... 40
List of Figures

Figure 1: OHN: Job Satisfaction vs. Job Dissatisfaction .......................................................4

Figure 2: Conceptual-Theoretical-Empirical Diagram ..............................................................6
List of Tables

Table 1: OHN Work on Present Job .................................................................20
Table 2: OHN Satisfaction with Pay.................................................................21
Table 3: OHN Satisfaction with Opportunities for Promotion ......................23
Table 4: OHN Satisfaction with Supervision ......................................................24
Table 5: OHN Satisfaction with Coworkers .......................................................25
Table 6: OHN Overall Job Satisfaction .............................................................26
Table 7: OHN Aggregate Means for JDI and JIG .............................................27
Table 8: OHN Stress in General .................................................................28
Table 9: Aggregate Mean for SIG .............................................................29
CHAPTER I

Introduction

Occupational health nursing is a very specialized form of nursing that has become a vital role within the workplace. An occupational health nurse (OHN) diagnoses and treats those who become sick or injured on the job, and manages employee health issues. (Moore & Moore, 2014) Occupational health nurses evaluate the workplace for any potential dangers that may cause health problems for workers. They evaluate work and non-work-related health situations and injuries, and they may be involved with any type of short-term disability claims that come in. Occupational health nurses provide information about worker’s compensation claims quite extensively, and they are often involved in the evaluation of Family Medical Leave Act benefits. (Moore & Moore, 2014)

The diverse role of an OHN includes patient care and extensive administrative responsibilities as well. They may counsel workers on issues such as substance abuse and may educate employers and employees on health and wellness in the workplace. Depending on the company that they work for or the nature of the environment, occupational health nurses may be involved in a wide array of activities, including case management and OSHA assessments, (Moore & Moore, 2014) such as an occupational health nurse in the automotive manufacturing field.

With the role of the OHN being very specialized, job satisfaction and job retention are very crucial issues. Job satisfaction and retention of nurses has long been an issue for healthcare organizations everywhere. With occupational health nurses making up only 1% of the nation’s nursing population and being a very specialized field of
nursing, nurse recruitment is an issue, as well nurse retention. (Moore & Moore, 2014). Job satisfaction is key to retaining occupational health nurses as well as nurses everywhere.

Job satisfaction is defined as “Contentment (or lack of it) arising out of interplay of positive and negative feelings toward his or her work” (Business Dictionary, 2015). Nurses in hospital settings or other medical environments differ from the occupational health nurse in that the occupational health nurse may work in an atypical medical environment such as an industrial site, office, or factory. The occupational health nurse may frequently travel from place to place. The nurse may also work in a solitary work environment such as a single nurse unit at a manufacturing corporation, and may have sole responsibility for overseeing the healthcare of the industry workers. Work environment, as well as diverse job responsibilities, play a role in job satisfaction for the occupational health nurse.

At a major auto manufacturer in the southeast United States four occupational health nurses, out of a total of 18 nurses, left their employment over a period of nine months in 2014. This is 22% of the total nurses employed. The nurses who resigned gave reasons such as:

- Missing hospital-specific nursing and the lack of performance of hospital-specific nursing skills while employed as an occupational health nurse.
- Unhappiness with performing Worker’s Compensation case management tasks
- Unhappiness with working 12 hour shifts and/or night shift in a single-nurse unit
- Unhappiness with salary
At this same auto manufacturer, the auto production increased by 12% in 2014, while the turnover of occupational health nurses was 22% over nine months in 2014. The need for occupational health nurses skyrocketed in 2014 at this particular manufacturer, putting the safety and well-being of the production workers at risk, and forcing the occupational health nurse employees to work long hours.

Since the occupational health nursing field is a very specialized field and only makes up about 1% of the total of the nursing population (Moore & Moore, 2014), it is difficult to recruit prospective occupational health nurses. Since the need for occupational health nurses has increased in 2014 and 2015 due to elevated auto production rates, it is important to determine whether or not current occupational health nurses, specifically in the auto manufacturing field, are satisfied with their current positions and plan to stay in occupational health nursing.

**Significance**

Job satisfaction and nurse retention are ongoing problems for the nursing profession as a whole (Sakowski, 2012). With 61% of nurses working the hospital environment; 36% in nursing care facilities, physician offices, home health agencies, and government; and only 1% attributed to occupational health nurses in industry, job satisfaction issues for the occupational health nurse are unique and crucial to explore (Moore & Moore, 2014).

**Purpose**

The purpose of this study was to determine the overall job satisfaction and stress in general level of the occupational health nurse. By determining the overall job satisfaction and stress in general level, it may be possible to predict if nurses plan to leave
the occupational health nursing field. It may also help to determine what factors need to be addressed to prevent nurse turnover and increase nurse retention.

Conceptual Framework

Job satisfaction for occupational health nurses may be dependent on factors within the workplace such as empowerment to make decisions, availability of job advancement opportunities, availability of educational opportunities and training, work schedule, positive and cohesive work environment, interpersonal relationships, physical work conditions, rate of pay, and ability to take time off work. One factor may be more important to a nurse than another, but they all must work in collaboration to create job satisfaction. All of these factors will be examined and their level of importance in achieving job satisfaction will be determined. It will also be determined if other factors play a role in job satisfaction, as suggested by the nurses themselves. Figure 1 identifies possible characteristics of job satisfaction and possible characteristics of job dissatisfaction of the occupational health nurse.

Figure 1: OHN: Job Satisfaction vs. Job Dissatisfaction
Theoretical Framework

For the theoretical framework, Betty Neuman’s Systems Model will be used to guide the study of the OHN satisfaction. In the Systems Model, homeostasis is shown to be influenced by interpersonal, intrapersonal, and extrapersonal stressors. Alterations between normal and flexible lines of defense may result in the stress response having a detrimental effect on the body. Primary prevention occurs before the patient reacts to a stressor. It includes health promotion and maintaining wellness. Secondary prevention occurs once the body reacts to a stressor and is provided in terms of the existing system. It focuses on preventing damage to the central core by strengthening the internal lines of resistance and removing the stressor. Tertiary prevention occurs after the patient has been treated through secondary prevention strategies. It offers support to the patient and tries to add energy to the patient or reduce energy needed to facilitate reconstitution (Neuman & Fawcett, 2011).

Neuman explains environment as the totality of the internal and external forces which surround a person, and with which they interact at any given time. These forces include the intrapersonal, interpersonal, and extra-personal stressors, which can affect the person's normal line of defense and so can affect the stability of the system. The environment has three components: the internal, which exists within the client system; the external, which exists outside the client system; and the created, which is an environment that is created and developed unconsciously by the client, and is symbolic of system wholeness (Neuman & Fawcett, 2011).

When applying this theory to the overall job satisfaction level and stress in general of the occupational health nurse, this study will identify stressors for the
occupational health nurse as measured by the Job Descriptive Index, which includes the Job in General Index, and secondly, the Stress in General Index from Bowling Green State University 2009. Figure 2 describes the Conceptual-Theoretical-Empirical diagram for the intended study.

Figure 2. Conceptual-Theoretical-Empirical Diagram
CHAPTER II

Literature Review

A search was done through EBSCO Host which included medical databases CINAHL Plus with Full Text, ProQuest, Health Source, and PubMed. Search terms used were nurse, occupational health nurse, job satisfaction, retention, and job stress. The search time frame was first limited to 2006-2016 and then the timeframe was broadened since no research containing information regarding the occupational health nurse and job satisfaction / job stress was obtained. The time frame was then broadened to 1985-2016. Articles which used the Job Descriptive Index, Job in General Index, and Stress in General Index were also searched. Further information about these tools was obtained through the Bowling Green State University website.

Occupational Health Nurse Job Satisfaction

Two studies were found in the literature directly related to job satisfaction in occupational health nurses. In the study by Conrad, Conrad, and Parker (1985), job satisfaction among occupational health nurses was examined. Ninety seven randomly selected occupational health nurses responded to the Minnesota Satisfaction Questionnaire. It was determined that occupational health nurses, as compared with hospital nurses, were significantly more satisfied with compensation, creativity, and independence. Hospital nurses questioned were significantly more satisfied with advancement, authority, coworkers, responsibility, security, and technical supervision. Occupational health nurses were least satisfied with advancement, technical supervision, and compensation; they were most satisfied with social service, moral values, and achievement (Conrad et al., 1985).
In a similar study by Sakowski (2012), job satisfaction of occupational health nurses in Poland was examined. A survey was distributed to 600 randomly selected nurses, with about 200 questionnaires being completed, a 33% response. Of the nurses responding, 26% had considered going abroad to work in the general health care system, including 10% that would not choose to be a nurse at all. Almost 25% of the nurses responding would not choose to be an occupational health nurse again. The study concluded that Polish occupational health nurses were generally satisfied with their job, however only 26% of the nurses were fully satisfied. Occupational health nurses indicated that there were opportunities for improvement in the workplace. The areas identified as needing improvement were “possibility of professional promotion” and “salary”. This study serves an example for occupational health nurse studies in the United States.

**Job Satisfaction and Nurse Empowerment**

The remainder of the literature review focuses on nurses and job satisfaction related to empowerment, job satisfaction related to the work environment, nurse retention, nurses’ stress level, and the importance of support from nurse management. This literature can be used as a resource since some of these same topics apply to the proposed study of the overall job satisfaction and stress level of the occupational health nurse.

The topic of registered nurses’ empowerment and intent to leave their current position and/or profession was examined in a study by Zurmehly, Martin, and Fitzpatrick (2011). Empowerment is an important component of job satisfaction. This study tried to identify a relationship between empowerment and intent to leave a current job. Thirteen
hundred fifty-five nurses participated in a web-based survey. The nurses completed measures of personal demographics, empowerment, intent to leave their current position, and intent to leave the profession. The nurses’ empowerment scores had a mean of 18.85, with a range from 6 to 30. The nurses perceived moderate levels of empowerment. The RNs least likely to leave their current position had significantly higher empowerment scores than those most likely to leave their current position. Overall, 310 (25.2%) indicated a slight chance in seeking work or change of employer in the near future; 261 (21.2%) reported uncertainty; 87 (7.1%) indicated a good chance; and 69 (5.5%) indicated they would definitely leave in the near future. Reasons associated with the intent to leave included organizational factors of: supervisor (18%), job stress (14.8%), co-worker relations (9.7%) salary benefits (6.5%), management (4.5%), and job assignment (3.4%). The results of this study are important for nurse leaders to consider and utilize empowerment and intent to leave as new concepts in which to measure nurse retention.

Job Satisfaction and Nurses’ Work Environment

Baernhodt and Mark (2009) conducted a study that examined whether or not there are differences in hospital characteristics, nursing unit characteristics, the nurse work environment, job satisfaction, and turnover rates in rural and urban nursing units. Both urban and rural nursing units were compared in a national random sample of 97 United States hospitals, between 99-450 beds, which included 194 nursing units. Data on hospital characteristics were obtained from the AHA and the hospital’s study coordinator. Nurses’ job satisfaction was measured using a 27-item organizational job satisfaction
scale. Turnover rates were the total number of RNs who ended their employment on the unit during a six month period. The mean nurse response rate was 62%.

Nursing units in rural hospitals were significantly smaller than in urban hospitals (29.4 beds vs. 33.8 beds, P<0.02). Work complexity, availability of support services, and safety climate were similar in the two groups and across hospital size.

For the nurse work environment, three variables differed significantly between rural and urban hospitals. Compared to units in urban hospitals, the proportion of RNs was significantly lower in rural hospitals (50.1% vs 59.6%, P<0.000), and in the units in rural hospitals with bed size categories of 200-299 (P<0.01) and 300-450 (P<0.000). Rural hospital units had a significantly lower proportion of RNs with baccalaureate or higher degree (27.2% vs 35.3%, P<0.0006). RNs’ experience, expertise, and commitment to care were almost identical in the two groups, as were the professional practice variables, decentralization, autonomy, and relational coordination.

This study revealed that rural/urban location was not significantly associated with nurse job satisfaction or turnover rates, but several characteristics of the nursing unit and factors in the nurse work environment were associated with these outcomes. For the entire sample, availability of support services, commitment to care, and autonomy had a positive influence on nurse job satisfaction.

Creating better support services, work flow with less complexity, a nurse work environment that supports autonomous nursing practice, and nurses who are committed to patient care, were identified as strategies for recruiting and retaining nursing staff. It was determined that leaders in rural hospitals can also improve the work environment by providing nurses with more educational opportunities (Baernholdt & Mark, 2009).
Nurse Retention

Omar, Abdul Majid, and Johari (2013) conducted a study about the relationship between job satisfaction, nurse retention, and the intention to leave among nurses in Malaysian public schools. The role of moral obligation as a mediator on the relationship between job satisfaction and intention to leave was also examined. A survey was conducted that measured perceived job satisfaction, moral obligation, intention to leave, and demographic data. A total of 700 surveys were distributed, with a 62.3% response rate (N=436).

The researchers determined that job satisfaction was significantly and negatively related to intention to leave ($r = -0.4369$) and job satisfaction had a significant positive relationship with moral obligation ($r=0.473$). There was a significant mediating effect of moral obligation on the relationship between job satisfaction and intention to leave. These findings are important for nurse managers to utilize when considering retention strategies for nurses. The effect of moral obligation on nurse retention has not been studied in the U.S. or with occupational health nurses specifically.

Nurses’ Stress Levels

A Norwegian study by Begat, Ellefsen, and Severinsson (2005) surveyed 71 nurses to determine if workplace stress levels correlated with job satisfaction, perception of psychosocial work environment, and the outcomes of clinical nursing supervision on nurses’ experiences of well-being. Nurses were sampled from two hospitals. Data was collected through questionnaires and analyzed by descriptive and inferential statistics. The nurses’ satisfaction with their work environment was determined based on six factors: “job stress and anxiety”, “relationship with colleagues”, “collaboration and good
communication”, “job motivation”, “work demands”, and “professional development”.

Factor one measured job stress/anxiety. This accounted for a correlation of (15.05%) with Cronbach’s alpha of (α=.83), and factor one attributed increased stress to nurses feeling they had too much to do (α=.90) and being stressed out on the job (α = .87). Factor two looked at relationships with colleagues resulting in an overall correlation of (13.66%, α = .63). Specifically, nurses identified a need to discuss problems (α =.80), responsiveness of subordinates (α16 =.77), colleagues openness to new ideas (α =.75), and the ability to get information (α =.64). In Factor three, collaboration/communication was responsible for (11.2%) overall with an alpha of 0.72. When they belonged to fellowship, nurses reported a positive relationship (α =.88) and when they were able to collaborate with others (α =.84). Factor four (10.7%, α = .74) showed that when nurses were engaged at work, they felt more job motivation (α =.81) and nurses also found the work interesting and stimulating (α =.75). Factor five looked at work demands (7.8%, α =.64), specifically planning. There was a correlation between stress and no job description (α =.79) and lack of planning or routines (α = .78). Lastly, Factor six found a positive correlation with professional development (5.9%) and nurses being encouraged to develop new skills (α =.85). Overall, these six factors explained 64.3% (α =.75) of the principal components of nurses perceptions of their psychosocial work environment (Begat et al., 2005).

It was concluded that job-related stress and anxiety are directly caused by ethical conflicts in nursing. Support by clinical nursing supervision may have a positive influence on nurse perceptions of well-being. It may also have a positive effect on nurses’ physical symptoms, feelings of anxiety, as well as being in control of the situation. There were clear differences between the nurses who received clinical nursing support and
those that did not. This study is important for nursing managers to understand the importance of providing support to nurses, and the role it plays in overall job satisfaction.

Another survey of work related stress was conducted with 1,780 nurses in Michigan (Fletcher, 2001). Researchers found that nurses believed they were being asked to provide more care with less staff and that patients had unrealistic expectations of the level of care (Fletcher, 2001). The respondents rated their mean professional stress as high, compared to other health professions ($R = .90$). Additionally, the nurses rated their job satisfaction as 5.04 on a scale from 1 to 7, indicating that they were somewhat satisfied with their job, and they rated their likelihood of leaving the profession as 4.08 on a scale from 1 to 5 indicating a low likelihood of leaving the profession (Fletcher, 2001).

A qualitative exploratory study looked at work related stressors and coping mechanisms in hospital registered nurses (Hall, 2004). The researcher interviewed 10 nurses in Kentucky and found that they believed that a shortage of skilled labor and polychronicity was responsible for their increased stress levels. The nurses identified categories that they felt were responsible for their stress and among them system barriers, self-expectations, shortage of skilled labor, and colleague’s inexperience as the most common reasons they were unable to meet the patients’ needs and provide safe quality care. The study also found that negative communication, including anger and discourtesy, experienced in interactions with other health care professional, doctors, and patients and families was a source of stress. When effective communication broke down, nurses tended to withdraw from the situation and focus on when their shift would end or resign themselves to a situation they believed would not change (Hall, 2004).
Summary

This literature review has determined that nurse empowerment, work environment, stress level, and support of nurse management, all play a role in the job satisfaction and retention of the nurse. Nurses who feel less empowered and have higher stress levels related to work conditions, also have higher intent to leave and decreased job satisfaction (Zurmehly et al., 2011). Work-related stress can contribute to low job satisfaction and increased likelihood of nurses leaving the profession (Begat et al., 2005). The overall work environment can influence the nurse’s intent to leave (Baernhodt & Mark, 2009). These findings emphasize the importance of multiple concepts impacting nurse satisfaction and retention rates and should be of great interest to nurse leadership.

There have been few studies about job satisfaction of the occupational health nurse, identifying this as a substantial need in the field of nursing research. There were no studies found for OHN in the automotive industry. Therefore, the research question is, What is the overall level of job satisfaction and stress in general of occupational health nurses employed in the automotive industry?
CHAPTER III

Methodology

Study Design

The study design is descriptive, quantitative study design used to identify the level of work-related stress and job satisfaction.

Setting and Sample

The total sample frame is approximately 75 occupational health nurses employed in five car manufacturing plants in the southeast United States.

Measurement Methods

Participants will be asked to complete an anonymous survey about the job satisfaction and the overall stress level at work. The survey is the Job Descriptive Index, which includes the Job in General Index, and secondly, the Stress in General Index from Bowling Green State University (2009) (see Appendix A).

The Job Descriptive Index is designed to measure employees' satisfaction with their jobs. The JDI is a facet measure of job satisfaction, meaning that participants are asked to think about specific facets of their job and rate their satisfaction with those specific facets. The JDI is comprised of five facets, including satisfaction with: coworkers, the work itself, pay, opportunities for promotion, and supervision.

The Job In General is also designed to measure employees’ satisfaction with their jobs. The JIG is a measure of global satisfaction, meaning that participants are asked to think about how satisfied they are with their job in a broad, overall sense.
The Stress in General is designed to measure employees’ general level of workplace stress. Participants are asked to think about whether or not particular stress-related descriptors are characteristic of their job.

Cronbach’s coefficient alpha measures how strongly each of the items in the JDI facet scales and the JIG are related to the other items on their respective scales. Hence, it is often used as a measure of the degree to which the items all measure the same underlying construct. Generally scales with Cronbach’s coefficient alpha of .80 or higher are considered to have high levels of reliability, in that the items consistently measure the same underlying construct.

The SIG has been shown to have a reliability coefficient of .79. Confirmatory Factor Analysis (CFA) showed that the 8-item SIG has a RMSEA of .07 (90% confidence interval, .05 - .10), an SRMR of .05, and a CFI of .94 ($\chi^2 = 52.00$, df = 20). The scale correlated positively and significantly with the faces stress measure ($r = .54$, p < .01) indicating convergent validity. At the same time, it also correlates negatively and
significantly with the faces job satisfaction scale ($r = -.25, p < .01$) and with the JIG ($r = -.18, p < .01$) indicating divergent validity (Bowling Green State University, 2009).

**Design for Data Collection**

The researcher is the nurse manager at site #1. To start, electronic mail was sent to all potential participants of site #1 the week before the survey was distributed, explaining the study, stating that it would take place the following week and encouraging participation. The researcher distributed a survey and a cover letter (see Appendix B) to all the occupational health nurses at that site. The surveys were completely anonymous and no information that would identify the participants was included. A reminder email was sent out to potential participants after the first and second weeks to encourage participation. Each survey had a self-addressed envelope for the participant to mail the survey directly to the researcher. Consent to participate was implied if participant filled out and mailed the survey.

For site #2, #3, #4, and #5, the surveys were mailed directly to the nurse managers at each plant in a bulk mailing, for the nurse managers to distribute to the potential participants. The bulk mailing consisted of a research information sheet, 25 surveys with a cover letters, and a self-addressed / stamped return envelopes with each survey. Once the survey packet were mailed, an email was sent to the nurse managers of sites #2, #3, #4, and #5 the week before the survey was distributed, stating that it should take place the following week and asking the nurse managers to encourage participation. The nurse managers of each site distributed a survey, cover letter, and self-addressed stamped envelope to each of the potential participants. A reminder email was sent to the nurse
managers after the first and second weeks, reminding them of the survey and asking them to encourage participation. At the end of three weeks, the survey was closed.

The survey questions for all research participants consisted of questions from the Job Descriptive Index, that also included the Job in General Index, and then the Stress in General Index, both from Bowling Green State University (2009). An aggregate score was determined.

**Protection of Human Subjects**

The study began after the University’s IRB approval. No participant identifiers were collected. Survey data was anonymous and confidential. Data was reported only as aggregate data from Site 1, Site 2, Site 3, Site 4, and Site 5. The completed study questionnaires and forms were secured in a locked area in the researcher’s home office and analyzed on a password protected computer.

**Data Analysis**

Data was entered into BGSU SPSS syntax file by the researcher. Any items that needed to be cleaned and reversed scored, as identified by BGSU, was done by the researcher. Descriptive statistics were used to analyze data.
CHAPTER IV

Results

This chapter presents the results of this study and identifies work related stress and levels of job satisfaction in a sample of occupational health nurses employed in automobile manufacturing plants in the South. The mean scores for levels of job satisfaction are presented, as related to present work, pay, and opportunities for promotion, supervision, and co-workers.

Data Collection Procedure

For site #1, three surveys (Job Descriptive Index (JDI), the Job in General index (JGI), and the Stress in General Index (SIG) were distributed by the researcher, who is also the nurse manager, to all of the occupational health nurses employed by site #1. For sites #2, #3, #4, and #5, survey packets, containing instructions, 25 surveys and self-addressed return envelopes for each site, were mailed directly to the nurse managers. Those surveys were distributed to the occupational health nurses at those sites. Nurses agreeing to participate from each of five sites mailed the completed survey directly to the researcher in a self-addressed return envelope. Surveys did not indicate personal information or identify the work site.

At the end of the third week of the survey, 26 anonymous surveys were received by the researcher. A reminder email was sent to the sites and the study was extended for one more week. At the end of the fourth week, 38 anonymous surveys were received.
Results of the Job Descriptive Index (JDI) / Job in General (JIG)

When completing the JDI, nurses were asked to address words such as “fascinating”, “satisfying”, “good”, “exciting”, “rewarding”, and “uninteresting” to describe work on their present jobs. They responded either “Yes, “No”, or “?” (Unsure) to each word presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score for that nurse. The frequency and percentage of final scores regarding work on present job are represented in Table 1. The final scores for nurses range from 9.00 – 18.00, with the possible range of scores being 0 – 18.00. The higher scores are indicative of a higher satisfaction level regarding work on the nurses’ present jobs.

Table 1

OHN Work on Present Job

<table>
<thead>
<tr>
<th>Work on Present Job</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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</table>
Table 2 states the frequency and percentage of scores on the JDI, regarding questions about pay. Nurses were presented phrases such as “barely live on income”, “bad”, “comfortable”, “well paid”, “enough to live on”, and “underpaid”, and asked to score them. They responded either “Yes, “No”, or “?” (Unsure) to each word or phrase presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score regarding satisfaction with current pay. The frequency and percentage of responses regarding pay on current job are represented in Table 2. The scores range from 3.00 – 15.00, with the possible range of scores being 0 – 18.00. The higher scores are indicative of a higher satisfaction level regarding current pay on the job.

Table 2

**OHN Satisfaction with Pay**

<table>
<thead>
<tr>
<th>Pay</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.00</td>
<td>1</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
</tr>
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<td>6.00</td>
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<td>9.00</td>
<td>6</td>
<td>15.8</td>
<td>15.8</td>
<td>21.1</td>
</tr>
<tr>
<td>10.00</td>
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<td>5.3</td>
<td>5.3</td>
<td>26.3</td>
</tr>
<tr>
<td>12.00</td>
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<td>78.9</td>
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<td>15.00</td>
<td>8</td>
<td>21.1</td>
<td>21.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Opportunities for promotion were also addressed in the JDI. Nurses were asked to score the words or phrases, “good opportunities for promotion”, “opportunities somewhat limited”, “dead-end job”, “good chance for promotion”, “regular promotions”, and “fairly good chance for promotion”. They responded either “Yes”, “No”, or “?” (Unsure) to each word or phrase presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score regarding satisfaction for opportunities for promotion. Table 3 represents the scores for opportunities for promotion in this sample. The possible range of scores was 0 -18.00, with nurses in the sample scoring within a range from 0-18.00. The higher scores are indicative of a higher satisfaction level regarding opportunities for promotion.
Table 3

OHN Satisfaction with Opportunities for Promotion

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
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<tr>
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<td>.00</td>
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<td>21.1</td>
</tr>
<tr>
<td></td>
<td>1.00</td>
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<td>76.3</td>
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<td>78.9</td>
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<td></td>
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<td>15.8</td>
<td>94.7</td>
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<tr>
<td></td>
<td>18.00</td>
<td>2</td>
<td>5.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>38</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Nurses were also asked to score phrases regarding their current supervision on the job. They were asked phrases such as “praises good work”, “tactful”, “influential”, “up-to-date”, “annoying”, and “knows job well”. They responded either “Yes, “No”, or “?” (unsure) to each word or phrase presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score regarding satisfaction with supervision. Table 4 contains the scores for satisfaction with supervision. The possible range of scores was 0 – 18.00, with nurses in the sample scoring with a range from 6.00-18.00. The higher scores
are indicative of a higher satisfaction level regarding how nurses felt about the supervision on their current jobs.

Table 4

*OHN Satisfaction with Supervision*

<table>
<thead>
<tr>
<th>Supervision</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
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<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
</tr>
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<td>12.00</td>
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<td>5.3</td>
<td>5.3</td>
<td>7.9</td>
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<tr>
<td>13.00</td>
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<td>2.6</td>
<td>2.6</td>
<td>10.5</td>
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<td>13.2</td>
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<td>23.7</td>
<td>36.8</td>
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<td>16.00</td>
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<td>44.7</td>
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<td>18.00</td>
<td>21</td>
<td>55.3</td>
<td>55.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

People at present job or coworkers were also addressed on the JDI. Nurses were asked to score words or phrases including, “boring”, “slow”, “stupid”, “responsible”, “smart”, and “lazy”. They responded either “Yes, “No”, or “?” (Unsure) to each word or phrase presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score regarding people at present job. Table 5 contains the scores for how nurses felt about their coworkers. The possible range of scores was 0-18.00, with nurses in the sample
scoring with a range from 3.00-18.00. The higher scores are indicative of a higher satisfaction level regarding how nurses felt about their coworkers.

Table 5

OHN Satisfaction with Coworkers

<table>
<thead>
<tr>
<th>People at Present Job (Coworkers)</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
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<td>2.6</td>
</tr>
<tr>
<td></td>
<td>6.00</td>
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<td>7.9</td>
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<tr>
<td></td>
<td>9.00</td>
<td>5</td>
<td>13.2</td>
<td>21.1</td>
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<tr>
<td></td>
<td>12.00</td>
<td>7</td>
<td>18.4</td>
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<td>15.8</td>
<td>60.5</td>
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<td>16.00</td>
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<td>71.1</td>
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<tr>
<td></td>
<td>18.00</td>
<td>11</td>
<td>28.9</td>
<td>100.0</td>
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<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Nurses were asked about their overall job satisfaction in the Job in General Index (JIG). They were asked to score phrases such as “good”, undesirable”, “better than most”, “disagreeable”, “makes me content”, “excellent”, “enjoyable”, and “poor”. They responded either “Yes, “No”, or “?” (Unsure) to each word or phrase presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score regarding overall
satisfaction with nurses’ jobs. Results of the JIG are presented in Table 6. The possible range of scores was 0-18.00, with nurses in the sample scoring with a range from 15.00-24.00. The higher scores are indicative of a higher overall level of satisfaction level.

Table 6

*OHN Overall Job Satisfaction*

<table>
<thead>
<tr>
<th>Job in General Index (JIG)</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
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<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
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<td>7.9</td>
<td>10.5</td>
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<tr>
<td></td>
<td>21.00</td>
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<td>50.0</td>
<td>60.5</td>
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<td>7.9</td>
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<tr>
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</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 7 describes all five facets of the JDI and the Job in General Index (JIG), as scored by the nurses in this sample. The aggregate means for the job in general index, supervision, coworkers, and work were the highest of these scores. Pay and opportunities for promotion were the lowest.
Table 7

*OHN Aggregate Means for JDI and JIG.*

<table>
<thead>
<tr>
<th></th>
<th>Work</th>
<th>Pay</th>
<th>Promotion</th>
<th>Supervision</th>
<th>Coworkers</th>
<th>JIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
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<td>38</td>
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<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Missing</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Std. Deviation</td>
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<td>2.58139</td>
<td>5.93546</td>
<td>2.52216</td>
<td>4.02128</td>
<td>2.07196</td>
</tr>
</tbody>
</table>

**Results of the Stress in General Index (SIG)**

Table 8 states the results from the Stress in General Index. Nurses were asked to score the phrases or words, “demanding”, “pressured”, “calm”, “many things stressful”, “hassled”, “nerve-racking”, “more stressful than I’d like”, and “overwhelming”. They responded either “Yes”, “No”, or “?” (Unsure) to each word or phrase presented. Each “Yes” response was scored 3, each “No” response was scored 0, and each “?” was scored 1.5. Negatively worded items were reversed scored as directed by BGSU. The scores for each nurse were then added together to determine a final score representing overall stress levels. The possible range of scores was 0-24.00, with nurses in the sample scoring with a range from 0 -19.00. Lower scores are indicative of lower stress levels.
Table 8

*OHN Stress in General*

<table>
<thead>
<tr>
<th>Stress In General Index</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>.00</td>
<td>10</td>
<td>26.3</td>
<td>26.3</td>
</tr>
<tr>
<td></td>
<td>3.00</td>
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<td>4.50</td>
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<td>7.9</td>
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<td></td>
<td>6.00</td>
<td>5</td>
<td>13.2</td>
<td>63.2</td>
</tr>
<tr>
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<td>9.00</td>
<td>6</td>
<td>15.8</td>
<td>78.9</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>19.00</td>
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<td>2.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The aggregate mean and standard deviation for the Stress in General Index (SIG) are stated in Table 9.

Table 9

*Aggregate Mean for SIG*

<table>
<thead>
<tr>
<th>Stress In General Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>38</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>6.5921</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>6.25349</td>
</tr>
</tbody>
</table>
CHAPTER V

Discussion

Summary of Findings

When completing the Job Descriptive Index (JDI), the Job in General index (JGI), and the Stress in General Index (SIG) questionnaires, participants were asked to answer “yes”, “no”, or “?” (Unsure) to short lists or phrases that describe different facets of the job or the job overall. The JDI scale measured satisfaction with different facets of the job situation: the work itself, pay, promotion, supervision, and coworkers. The JGI measured overall job satisfaction with the job; the SIG measured overall stress on the job. The scores were compiled, cleaned, and negatively worded items were reversed scored as suggested by Bowling Green State University. The results of the JDI, JIG, and SIG scales were used to answer the research question, What is the overall level of job satisfaction and stress in general of occupational health nurses?

When asked about work on their present jobs on the JDI, nurses were presented phrases such as “fascinating”, “satisfying”, “good”, “exciting”, “rewarding”, and “uninteresting”. In Table 1, scores ranged between 9 and 18, with 28.9% of nurses scoring 14, 18.4% scoring 13, and 13.2% scoring 18. The highest percentage of nurses scored within the middle range, suggesting that occupational health nursing in the automotive industry setting may be less than exciting, fascinating or interesting. The mean score for work on their present jobs was 13.5789.

Pay had the next to the lowest mean score at 11.6579. Table 2 represents how nurses answered phrases such as “barely live on income”, “bad”, “comfortable”, “well paid”, “enough to live on”, and “underpaid”; 52.6% of nurses scored 12, 21.1% scored 15, and 15.8% scored 9. This indicates that nurses felt modestly satisfied, but the
compensation could be better. Nurse supervisors of occupational health nurses should explore every avenue to raise the pay for occupational health nurses.

How nurses felt about opportunities for promotion are represented in Table 3. Nurses were presented phrases such as “good opportunities for promotion”, “opportunities somewhat limited”, “dead-end job”, “good chance for promotion”, “regular chance for promotion”, and “fairly good chance for promotion”, 21.1% scored 0, 26.3% scored 3, and 15.8% scored 15. These scores were highly variable and apparently nurses disagreed on this subject, given the standard deviation of 5.93546 noted in Table 7. The majority of nurses felt that opportunities for promotion were limited and that opportunities for promotion were not readily available, although there were those that also felt that opportunities for promotion were available.

Table 4 describes how nurses felt about the supervision at their current positions, with scores ranging between 3 and 18. They were presented phrases such as “praises good work”, “tactful”, “influential”, “up-to-date”, “annoying”, “knows job well”, and they were asked to respond to these phrases; 55.3% of nurses had a score of 18 and 23.7% had score of 15. This represents a positive score for supervision and nurses seem to be pleased with the current supervisors. Nurse managers and nurse supervisors should continue the foster relationships with the nursing staff to maintain a positive atmosphere and good working relationships.

How nurses felt about their coworkers is represented in Table 5. They were presented phrases such as “boring”, “slow”, “stupid”, “responsible”, “smart”, and “lazy”. The scores are somewhat varied, with the 28.9% of nurses scoring 18, 18.4% scoring 12, 15.8% scoring 15, and 10.5% scoring 16. Overall the scores for how nurses feel about
their coworkers were slightly variable, yet still favorable and positive. Team building exercises might be of benefit to increase scores and/or decrease the variability of scores.

The Job in General Index (JIG) indicates the nurses’ overall job satisfaction. Table 6 represents the scores for the JIG that range between 15 and 24. With 50% of nurses scoring 21 and 31.6% of nurses scoring 24. The mean score for the JDI is 21.6316 as indicated in Table 2. This indicates that, yes, the majority of nurses are satisfied with their current jobs as occupational health nurses in the automotive industry.

When analyzing the data of the JDI index, Table 7 shows the mean scores for work, pay, promotion, supervision, and coworkers. Registered nurses in this study were pleased overall with supervision at their current positions, with the highest mean score going to supervision at 16.2632. Nurses were somewhat pleased with their coworkers and the work, with the mean scores at 13.7895 and 13.5789 respectively. Both pay and promotion have the lowest mean scores at 11.6579 and 6.5000.

The Stress in General Index (SIG) indicates the nurses’ overall stress level. Nurses were asked to answer phrases such as “demanding”, “压䑵”, “calm”, “many things stressful”, “hassled”, “nerve-racking”, “more stressful than I like”, and “overwhelming”. Table 8 shows the percentages of nurses’ answers that fall between the scores of 0-19. 26.3% of nurses scored 0, 15.8% scored 3, and also 15.8% scored 9. The scores were somewhat variable with 10.5% of nurses scoring 18 and the standard deviation was determined to be 6.25349 as shown in Table 9. Table 9 also shows the SIG mean score of 6.5921. This indicates that the overall stress level of nurses in the occupational health setting of the automotive industry in this sample is very low.
Implications of Findings

The majority of nurses in the automotive industry that participated in this study are satisfied in their current roles as occupational health nurses. The results indicated that the stress level of these nurses is very low. The JDI identified that the two areas that nurses were least satisfied with were pay and opportunities for promotion.

It was very difficult to find studies specifically related to the job satisfaction level of the occupational health nurse. Only two studies that specifically address the occupational health nurse and job satisfaction were found, one in 1985 by Conrad, Conrad, and Parker, and another in 2012 by Sakowski. The other studies examined were generally related to the hospital nurse and job satisfaction. There is a definite gap in the literature when studying occupational health nurse and job satisfaction.

Findings of this study are similar to the findings in the 1985 study by Conrad, Conrad, and Parker (1985), in that nurses were least satisfied with advancement and compensation. The nurses sampled in the study were a random sampling frame from a state associate of occupational health nurses in the Midwest. The findings are also similar to the findings in a study by Sakowski (2012), who found that occupational health nurses in Poland identified professional promotion and salary as areas that needed improvement.

As previously noted in the literature review, the topics of nurse empowerment, work environment, stress level, and support of nurse management, all play a role in the job satisfaction and retention of the nurse. The lack of availability of studies related to these topics and the OHN, as well as job satisfaction and stress levels of the OHN are a definite opportunity for research.
Application to Theoretical/ Conceptual Framework

When applying Neuman’s Systems Model to the findings of this study and the overall job satisfaction level and stress in general of the occupational health nurse, stressors of unhappiness with pay and lack of promotion opportunities were identified by the JDI. Even though those items were identified, the overall job satisfaction level of the occupational health nurses surveyed was favorable and their stress level was very low. These findings are not congruent with Neuman’s System Model. In Neuman’s System Model, the environment is seen as the totality of the internal and external forces which a person interacts with at any given time. These forces included the intrapersonal, interpersonal, and extrapersonal stressors, which can affect the stability of the system.

The JDI, JIG, and SIG questioned stressors in the environment of the OHN such as work on present job, pay, opportunities for promotion, supervision, coworkers, job in general, stress in general. Even though pay and lack of promotion opportunities were identified as areas that nurses were less than satisfied with, their job satisfaction level and stress level was still good. These stressors did not interrupt or affect the job status of the OHNs in this study. However, if the unhappiness with these stressors continues to increase, then there is the possibility that the OHN may choose to leave the job, therefore disrupting the environment. The conceptual framework indicated that persons responded to stressors through normal and flexible lines of defense. It may be that nurses in this sample buffer the effects of lower compensation rates by collaborating with coworkers and positive relationships with supervisors.
Limitations

This study was limited to occupational health nurses working in the automotive industry. A larger sample of occupational health nurses representing a variety of occupational settings might yield more generalizable results in job satisfaction levels and stress levels, for the development of innovative retention strategies.

Implications for Nursing

This study identifies the overall job satisfaction and stress levels in a sample of occupational health nurses specific to the automotive industry. As the automotive industry grows, the need for occupational health nurses grows also. Since the occupational health nursing field is a very specialized field and only makes up about 1% of the total of the nursing population (Moore & Moore, 2014), it is difficult to recruit prospective occupational health nurses. Since the need for occupational health nurses has increased in 2014 and 2015 due to elevated auto production rates, it is important to determine whether or not occupational health nurses, specifically in the auto manufacturing field, are satisfied with their current positions and plan to stay in occupational health nursing.

Nurse retention might be improved if the OHN has more opportunities for promotion. This could possibly be implemented as leadership roles within the healthcare team or also companywide. The nurse would also feel more empowered with more opportunities for promotion and leadership. Any opportunities for an increase in pay for OHN should be explored by nurse leadership since the research shows that nurses feel their pay is less than adequate.
The nurse leadership in occupational health needs to continue to promote positive
coworker relationships and safe work environments. Leadership should continue to praise
positive behavior and exceptional work. These actions will continue to grow positive
workers relationships and encourage positive work growth.

**Recommendations/ Conclusions**

This study has determined that this set of research participants are satisfied with
their current job and their stress levels are low. Industry leaders should continue to
maintain work and reward systems congruent with professional employee needs. Further
studies on this topic, possibly with a larger subject group and occupational health nurses
within a broader range of industries, may be needed.
References


Appendix A

Job Descriptive Index
Appendix B

Cover Letter

Potential Research Participant,

Hello, I’m Angela Ballard, a MSN graduate student at Gardner Webb University. I am conducting a research study to evaluate the job satisfaction level and overall stress in general level of occupational health nurses. You are being asked to complete this survey because you are an occupational health registered nurse.

Participation is completely voluntary. If you choose not to participate, your job will not be affected in any way. The survey will take approximately 20 minutes or less to complete. If you would prefer not to participate, please do not fill out a survey. If you agree to participate, please complete the survey.

This study involves no foreseeable risks. Please try to answer all questions; however, if there are any items that make you uncomfortable or that you would prefer to skip, please leave the answer blank. Your responses are anonymous.

If you have any questions or concerns feel free to contact me or my faculty advisor:

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If you have questions about your rights as a research participant, you may contact the Gardner-Webb University Institutional Review Board (IRB), which is concerned with the protection of volunteers in research projects at (704)406-4000.

Thank You,

Angela Ballard, RN, BSN