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An American Epidemic: Burnout Syndrome in Hospital Nurses

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AN AMERICAN EPIDEMIC: THE BURNOUT SYNDROME IN HOSPITAL NURSES

ABSTRACT

The number of Registered Nurses (RNs) in the United States (U.S.) is roughly three times that of physicians and surgeons, making RNs a critically important component of the U.S. healthcare system. RN Burnout – defined as the feeling of exhaustion from working long hours without rest – is a real concern, having been reported in many hospitals. The purpose of this review was to examine the causes and consequences of Burnout Syndrome among RNs in U.S. hospitals, in order to identify solutions to this problem. The methodology involved a review of the literature and semi-structured interviews. Seven primary databases, two websites, and 36 articles were consulted in this project. Findings indicate that Burnout Syndrome in RNs can be analyzed in terms of four clusters of characteristics: individual, management, organizational, and work. The consequences of Burnout Syndrome have increased RN turnover rates, poor job performance, and threats to patient safety. Burnout Syndrome is more prevalent in hospitals with a higher number of patients per nurse, and among younger RNs. RN Burnout in hospitals negatively impacts the quality of care, patient safety, and the functioning of staff workers in the healthcare industry.

Key words: *'Burnout Syndrome; Maslach theory; Registered nurses; hospitals; turnover*

INTRODUCTION

In 2014, according to the U.S. Bureau of Labor Statistics, 2.8 million Registered Nurses (RNs) worked in the United States (U.S.) healthcare system, 1.708 million of which were employed in hospitals. But only 708,300 physicians and surgeons were employed in the U.S. healthcare system during 2014.¹ RNs are thus critical in providing quality healthcare to U.S. citizens. The

number of employed RNs, moreover, has been on the rise: from 2003 to 2012, RN employment rose 17%. The U.S. Department of Labor forecasts this growth to continue and its researchers have estimated that the nursing workforce will rise another 26% between 2010 and 2020.²

The supply of RNs relative to the size of the U.S. population, however, remains low. As of 2010, there was fewer than one RN for every 100 U.S. citizens.³ RN density varies significantly across states, as well, from 1.25 RNs per 100 populations in South Dakota to 0.67 RNs per 100 population in Idaho.³ According to Carayon and Gurses,⁴ these low levels of staffing, when combined with the aging U.S. population and changes in the healthcare environment (e.g., more emphasis on containing costs) have meant that RNs are experiencing a heavier, more demanding workload than ever before.

The result has been RN Burnout. Survey results have shown that in 2015 the percentage of RNs in any given sample that was identified as being Burn-out ranged from 10% to 70%.⁵ The term “burnout” was first used in the 1970s, by the American psychologist Herbert Freudenberger, to describe the chronic stress experienced by individuals working under highly demanding conditions.⁶ Burnout Syndrome has since been defined as situation in which an individual experiences emotional as well as physical exhaustion, both of which are the direct result of working for long hours without rest or being exposed to stressful working conditions for a long period of time.⁷

RNs not only experience challenging work conditions involving long hours and little appreciation, but are also paid relatively poorly: RN wages averaged between \$3,400 to \$7,700 per month, depending on the hospital and its location.⁸ These stressors have contributed to high rates of burnout among new nurses. Up to 65% of those in the study samples reviewed have left their jobs as a result, which has contributed to the current nursing shortage.⁹

This shortage is significant, and the situation and is likely to become worse. There will be an estimated 1.2 million vacancies in nurse positions between 2014 and 2020. And over 55% of current RNs are 50 years or older and expect to retire within 5 to 10 years¹⁰. On the demand side of the healthcare system, an aging population will exacerbate the nursing shortage: the number of hospital patients has increased in the last 10 years and is expected to increase for the next 30 years. The numbers gap between RNs and patients will likely continue to grow.¹⁰

The leading measure of Burnout Syndrome is the Maslach Burnout Inventory (MBI), which tracks the incidence of burnout along three main dimensions: Emotional Exhaustion, Depersonalization, and Inefficacy. Emotional Exhaustion refers to the overwhelming exhaustion that can come from constant work under demanding conditions. Depersonalization refers to the sensation of being detached and insensate to the care and treatment of patients. When an RN becomes detached from his/her job, this could contribute to destructive feelings that lead to negative impacts on the effectiveness or quality of services provided to patients.¹¹ The Inefficacy scale captures the impact of burnout on the person's sense of accomplishment and achievement on the job.¹² Maslach, Leiter and Jackson have identified Inefficacy as a situation in which one's sense of personal achievement on the job is minimal, and note that this dimension is the most complex of the three.¹³

The purpose of this research was to examine the causes and consequences of Burnout Syndrome among RNs in U.S. hospitals, in order to identify solutions to this problem.

METHODOLOGY

The methodology for this study was a literature review, which was conducted by LB and validated by AC who was a second reader for the research's inclusion criteria. The electronic databases of PubMed, Academic Search Premier, ProQuest, EBSCO Host, CINAHL, and Google Scholar were searched for the terms 'Burnout' OR 'Burnout syndrome' AND 'Maslach theory' AND 'Registered nurses OR 'hospital' OR turnover OR Consequences'. The official websites of the Center for Medicare and Medicaid Services (CMS), and the American Nurses Association (ANA) were also utilized for this study.

The search was limited to articles published between 2000 and 2016 in the English language. Original articles, reviews and research studies using primary and secondary data were included. A total of 53 articles were reviewed; 36 of these were utilized in this research. Two semi-structured interviews, conducted with RNs having 32 years of experience, were used to support the research results in discussion section. One of the RNs (J. Studney) is a Clinical Informatics Nurse Specialist; the other (M. Ball), worked in the ICU. The questions asked in these interviews can be found in Appendix 1.

The conceptual framework of this study was adapted from Lin 2012.¹² The causes and consequences of Burnout among RNs can be analyzed in terms of four clusters of characteristics: individual, management, organizational, and work. The data have shown that RN experiences within each cluster of characteristics contribute to the presence of Burnout. The results have been increased RN turnover rates, poor job performance, and threats to patient safety (See Figure 1).

Insert Figure 1 About Here

RESULTS

Studies Utilizing the MBI

The Maslach Burnout Inventory, highlights the dimensions of Emotional Exhaustion, Depersonalization, and Inefficacy. This research indicates that Emotional Exhaustion is the most easily noticeable among many nurses.¹³ Most of the individuals reporting being burned out link it to exhaustion, brought on by emotional stress, including distress and frustration.^{14,15}

Tunc and Kutanis reported that RNs who had experienced Depersonalization claimed that it might be caused by excessive job demands that have led them to disengage from their work. Depersonalization also occurred in RNs who have experienced emotion exhaustion, and has contributed to the occurrence of job dissatisfaction.^{16,17}

One study using the MBI was conducted in 2010 across six countries: The U.S., Japan, Germany, the United Kingdom, Canada, and New Zealand. Its purpose was to examine the impact of Burnout Syndrome among RNs in hospitals on the quality of care provided in diverse countries. 54,846 RNs were included in the research sample. The researchers showed that the highest rate of RN Burnout was in Japan at 79.9%, while the lowest burnout rate was 9.4% in New Zealand. Germany had the second-highest burnout rate at 30%. The burnout rate reported in the U.S. sample was 18.8%, while the rates for Canada and the United Kingdom were, respectively, 14.4% and 12.8%. Most of the RNs in the research sample stated that Burnout Syndrome affected their ability to take good care of patients, thereby increasing the risks to patient safety.¹⁸

Other Studies Examining Burnout Syndrome

Gilles, Burnand, and Peytremann-Bridevaux noted that RN Burnout can be traced to some individual characteristics such as age, gender, and self-fulfilment.¹⁹ Erickson & Grove found

that the rate of burnout among RNs below the age of 30 was 43.6%, while the rate of burnout among RNs over 30 was 37.5%.²⁰ However, these authors found that the RNs under 30 were less likely than those over 30 to hide their true emotions.²⁰ (See Table 1 and Figure 2.)

Insert Figure 2 and Table 1 About Here

Management characteristics influencing RN Burnout have included the lack of proper clinical supervision, failure to offer resources, and mandated overtime.²¹ Olds and Clarke found that exhaustion linked to extended work hours led to burnout. Of 5,532 RNs included in the study done these scholars, 4,045 worked over 35 hours per week as paid volunteers, while the remaining 1,487 RNs had mandated, unpaid, overtime.²² (See Table 1).

Organizational characteristics that cause RN Burnout have included an excessive workload, staff shortages, and a low nurse to patient ratio.²³ According to Sharma, Davey, et al roughly 80% of the RNs sampled complained that they had no time for rest due to a heavy workload²⁴. Forty-two percent of the RNs in this sample said they suffered from severe stress, and 45% of the RNs were tired of their jobs. In sum, the RNs in this study identified increases in workload, the nursing shortage, time constraints, poor management, and lack of team support as key factors leading to burnout.^{24,25}

Weiner found a strong relationship between a high patient-to-nurse ratio (i.e., over 8:1) and preventive medical errors, which led to Burnout Syndrome²⁶. For example, for every RN added to staff, Weiner found that there was a 7% decrease in mortality. The mortality rate was highest among those patients who had the least access to RNs.²⁶ (See Table 1)

McHugh, Kutney-Lee, et al report that in their study 24% of the RNs were dissatisfied with their occupation, 34% of the RNs suffered from Burnout Syndrome, and 37% of the RNs

eventually decided to work in non-nursing positions due to the poor and stressful work environment.²⁷ (See Table 1)

Consequences of RN Burnout

Research shows that RN Burnout has been associated with a poor level of patient care, patient dissatisfaction, an increased number of medical errors, higher infection rates, and higher mortality rates.²⁸

Olds and Clarke reported that 9.6% of RNs in their sample had a contaminated needle stick or serious injury, 15.1% provided the wrong treatment or dose to their patients, 19.8% had caused injuries to their patients from falls, 32.8% had experienced work-related harms, and 35.2% got nosocomial infections.²²

According to Konwinski²⁹ the RN turnover rate within the first year of work ranged from 35% to 61%. The author also recognized that there was a direct relationship between turnover rates and workload increases, bullying within the work environment, emotional exhaustion, loss of job control, a poor work environment, and lack of engagement.²⁹

In another study, 54% of RNs intended to leave their job because of reasons linked to Burnout Syndrome.³⁰ Such turnover can have a strong negative impact on the quality of healthcare provided. For example, the study by Hunt showed that RN turnover resulted in a decreased quality of care, an increase in the incidence of medical errors, and higher costs. In one hospital reviewed by Hunt there was an estimated financial loss of \$300,000 for every percentage increase in nurse turnover per year.³¹

The study by McHugh, Kutney-Lee, Cimiotti, Sloane, and Aiken showed that patient outcomes have been negatively affected by RN Burnout in several ways: mortality rates in the hospitals studied increased by 19.4%, there was a 6.5% increase in patient readmission rates, and

36% of RNs missed essential changes with their patient's situation and/or failed to report important patient information when changing their shifts.²⁷

Stimpfel, Sloane, and Akien assessed the association between the patient-to-nurse ratio and burnout. They reported that nurses with large numbers of patients, such as more than 8 per RN, have less time to communicate with patients, which in turn delayed needed care and led to medical errors.³²

Cimoitti et al reported hospital-acquired infections were associated with RN Burnout. Their study, involving a sample of 7,075 RNs in 160 hospitals, showed that the rates of surgical site infections and urinary tract infections were positively related to the incidence of RN Burnout. For example, the hospitals with the highest burnout rates had the highest infection rates: a 10% increase in the burnout rate was associated with increases of 1 urinary tract infection and 2 surgical site infections for every 1,000 patients.³³ Finally, Fennessey noted that RNs suffering from Burnout Syndrome feel less motivated to work and tend to be less careful with patients, which resulted in more medical errors and decreased their work efficiency.³⁴

DISCUSSION

The aim of this study was to examine the causes and consequences of RN Burnout in U.S. hospitals, in order to identify solutions to this problem. The results of the literature review suggest that burnout has led to the development of mental and physical difficulties in RNs, such as low self-esteem, rejection, anxiety, and depression. Among the identified factors which attributed to RN Burnout, the results indicated that the working environment, shift work, and workloads – all of which are controlled by hospital management – were biased against nurses. Hospital management, often is non-clinical in nature, and decided the number of nurses to employ, what nurses would work off-time shifts such as the night shift, and the working

conditions for RNs. This lack of autonomy has contributed to the profession's burnout rates.³⁵ It was found out that burnout affects not only RN job performance, but also mental and physical health which has been supported by other studies³⁶. During one of the semi-structured interviews, moreover, J. Studney (a Clinical Informatics Nurse Specialist), noted that she has experienced some symptoms of burnout and it was related to weaknesses in senior management at one of the hospitals. Some of the consequences of burnout among the RNs included in the reviewed studies included severe headaches, sleeping complications, high blood pressure, and cardiovascular illness. These health issues, caused in part by high patient-to-nurse ratios (i.e., above 8:1), have contributed in turn to higher medical error rates and a lower quality of patient care which was confirmed by the semi structured interview of the ICU nurse.

Limitations and Practical Implications

The limitations of this review included search strategies used and the quality of the databases searched, which could affect the quality, availability, and numbers of articles found in this research. Further, researchers' biases and publications' biases could also affect the results of the study.

RN Burnout has been an important issue impacting the U.S. health care system and has not yet been resolved. After reviewing many studies on this topic, the Magnet Hospital Recognition Program began offering a way forward. Positive outcomes such as a better work environment, lower mortality rates, and improved patient care have been documented in hospitals participating in this program. Magnet Hospitals, indeed, are known for attracting quality RNs and retaining them because of exceptional work environments thus leading to high levels of job satisfaction. Implementing the Magnet Hospital Recognition Program in healthcare facilities appears to be a good first step in reducing the incidence of RN Burnout.

CONCLUSION

Burnout Syndrome among RNs in hospitals has become a worldwide phenomenon that negatively impacts the quality of care, the safety of patients, and the working staff. Solving the burnout problem has been difficult to handle however the Magnet Hospital Recognition Program have suggested that progress can be made.

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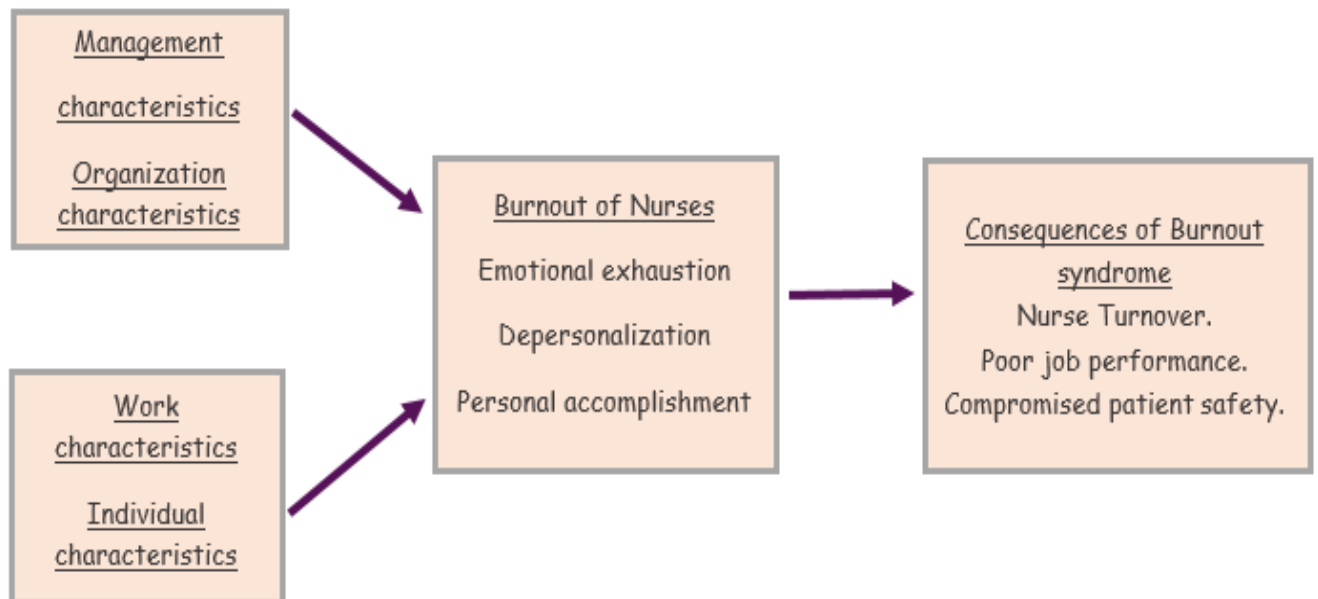


Figure1: Research Framework adopted from Lin, 2012.

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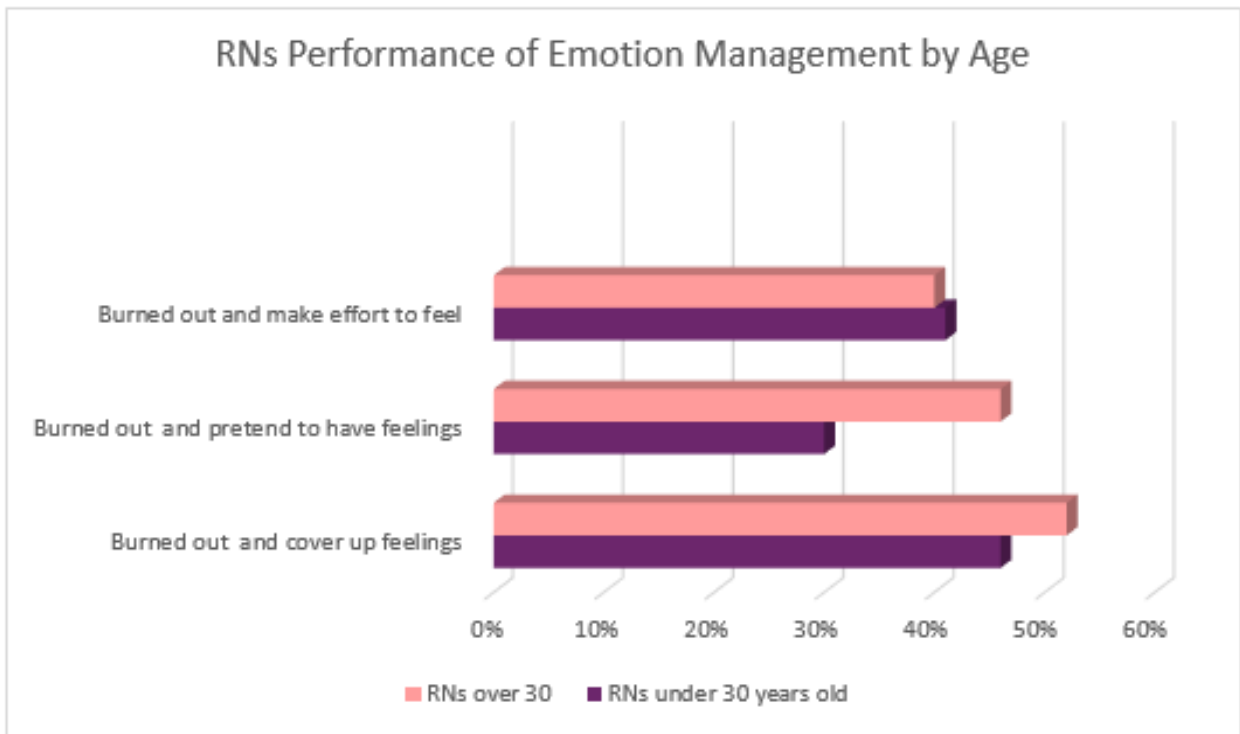


Figure 2: RNs Performance of Emotion Management by Age (Erickson & Grove, 2007)

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Appendix: 1

Questions asked in semi structured interview of Burnout Syndrome in Hospital Nurses

1. How long have you been a nurse?
2. How many hospitals have you worked in?
3. What is the longest hourly shift you have worked and the greatest number of consecutive days? Why?
4. What is the average nurse to patient ratio for you at current hospital? Why?
5. Do you experience any signs of Burnout Syndrome? ¹ If not, skip to question 7.
6. Did you experience these symptoms more at one hospital opposed to another? If so, what do you believe the reasons?
7. Were your reasons for leaving past hospitals because of Burnout Syndrome, pay wages, personal reasons, etc.?
8. Were there any nurse staffing shortages at any of the hospitals? Why?
9. Have you ever thought of a career change? Why?
10. Have you ever left the nursing professions? Why? If so, for how long and did you return? If not, skip to question 12.
11. What were your reasons for returning?
12. What is the highest level of education you have?
13. Do you plan on achieving a higher degree in nursing? Why? If not, skip to question 15.
14. What are your plans with a higher degree? Management, Nurse Practitioner, Education, etc.?
15. Do you feel the salary in your field is adequate or too low? Why?
16. Do you think a higher salary would help with any Burnout symptoms you may experience? Why or why not? Why?

Table 1: Causes of Burnout Syndrome among Nurses

<u>References</u>	<u>Causes of RNs Burnout and risk factors</u>
(Erickson & Grove, 2007) ²⁰	<p>Individual characteristics: Age</p> <ul style="list-style-type: none"> • There were 43.6% RNs < 30 years suffered from burnout syndrome. • 37.5%. RNs > 30 years had burned out. • 46% RNs under 30 were less likely to cover up their emotional feelings. • 52%, RNs over 30 more likely to cover their feelings. • RNs younger than 30 have had a high levels of burnout syndrome and less likely to hide their true emotions.
(Old & Clarke, 2010) ²²	<p>Management characteristics: Mandated overtime:</p> <ul style="list-style-type: none"> • Out of 5532 RNs 1487 mandated to work unpaid overtime, and 4045 worked paid voluntary over 35 hours a week.
(Sharma et al, 2014) ²⁴	<p>Organizational characteristics: Workload</p> <ul style="list-style-type: none"> • 80% RNs complained no time to rest. • 42% RNs had a severe stress. • 45% RNs tired from their job.
(AACN,2011) ²⁵ (Winer, 2014) ²⁶	<p>Organizational characteristics: patient to Nurse Ratio</p> <ul style="list-style-type: none"> • 7% decrease in patient's mortality rates for every additional RNs. • Out of 232,342 patients there were 4535 patients died within 30 days from admission with over 8:1 but wit 4:1 there were 635 survived patients. • An estimation of 1 million in RNs shortage by 2020.
(McHugh et al, 2011) ²⁷	<p>Work characteristics: Work environment</p> <ul style="list-style-type: none"> • 37% of RNs worked in non- nursing positions. • 34% of RNs burned out as a result of poor work environment. • 24% RNs in hospitals not satisfied with their occupations.