

Nurse Working Hours and Patient Safety Research Study

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Abstract

The research proposal is based on developing or identifying the link between the number of working hours and the impact on patient safety. In this, we tried to understand the basis of the relation, to support the question we reviewed the research paper given in the reference too in which we determined to analyze the schedule of nurses through the methodology of developing logbooks.

In those logbooks, all subjects were objectified, and results were mentioned in which we identified the relationship between errors and near errors with working schedule nurses. The discussion has been conducted to support the analysis of the support identified finding that nurses can face different kinds of issues that can affect patient safety. There is a need for proper work in this area, using research tools and legislating law at the federal and state levels.

The number of working hours of Nurses impacts the safety of patients.

Nurses are the backbone of the development of the health and medicine sector. From the historical background, we have seen that either it is an emergency situation nurses appear to be more active than doctors and have tougher duties than doctors. They have to deal with patients constantly; sometimes it is noted that they have to get calm during patients' aggression and tackle them better than the doctor. Most patients get attached to their attending nurses because of their good behavior. But, an issue highlighted is that sometimes the working hours disturb the nurses and affect their work.

Human work directly impacts time because human needs nourishment which they need to relax their body to get peace of mind and it is possible when you are getting time properly in a day to sleep. We have seen in different research that different conditions originate from the influence of working hours. Every research has taken its dimensions and areas differently. The relationship between working and sleep is scientifically defined as the normal person having slept for six to eight hours, which helps to develop neurocognitive to perform more efficiently and stay physically and mentally stable.

There are different opinions on the issue of some nurses' working hours and their impact on patient safety. In this research, we are trying to conduct an argumentative analysis using statistical detail

from the deep study of Anne Rogers's research work, *The Working Hours of Hospital Nurses Staff and Patient Safety*.

In this research, they analyzed severe hospitals subjectively and tried to analyze the upcoming disastrous conditions in the health sector concerning patient safety. A lot of nurse shortages have been observed, creating changes in shift hours. The development of time is disturbing per the nurses' daily work, and they are working long days with nominal time breaks, there are nurses noted as working sixteen hours out of 24 hours. Most nurses face daily additions to their schedules; some even voluntarily work twenty-four hours once in the seven-day cycle. According to a research report by the Institute of Medicine, it is recommended that voluntary overtime be cut to ensure the patient's safety. The cause has been identified as sleep deprivation and restlessness in the routine of nurses. The purpose is to identify the relationship between nurse working hours and their impact on the safety of patients.

Study base data

There was random sampling was done by forwarding the explanation of the project with criteria of about 1700 who took part in it, and they were chosen out of other nationwide members of the [American Nurses Association](#) and given two log books. All over 62 returned both of them, and they were also given a stipend for participating in this research. In the process of sampling 393 registered nurses in which only 26.3% of the participants took part and properly reported their all experiences in the hospital, it was not possible to identify the characteristics of the nurses due to the geographical and sampling structure. 56% of nurses worked in the urban locality, 19% in suburban, 18% in small towns, and 7% in rural areas.

Instruments

There were log books provided and used as an instrument in research to take the schedule and the actual hours they worked in the office in which subjects who had active roles properly filled up all the subjects through which we could analyze if there were any errors or errors near things that occurred. Also, items covering the long day details such as sleeping hours, and caffeine consumption like how many cups of coffee they had in their moods were tried to be analyzed. We trended out the electronic and paper logbooks, and both were used to collect the data for many years, which has been done for approximately ten years. We also tried to identify the group base working from the air traffic controllers and sleep patterns from the spaceship flight controller so we could objectify the data collected and make it comparable to the logs we are collecting from the nurses.

Finding methodology

The demographics are derived by using descriptive statistical methods and the help of tables in which the duration schedule is collected. We tried to analyze the timing of the actual shift and the overtime with an hour break every work. There were different variables on the binary analysis developed regarding the errors, noting when the nurse mentioned her analysis of making an error or getting near an error. The logistic regression model has been used to analyze the shifts' timing; every variable is estimated separately in the research. Some nurses participated in research at one hospital to save it from manipulation. A Generalized Estimating Equation was used to reduce the odds ratio.

Analysis

The data of 5,317 nurses revealed the fact that nurse staff usually work more than their working hours and work more than 40 hours per week. 14% of nurses claim in the month they have to give duties of twenty-three hours with a break of one hour only and they are unable to sleep and do not get the time to conduct their other activities. There were about 199 errors, and 213 errors were reported during compiling data. These mistakes include medication administration and information categorization. 56% of the nurses were involved in a medication error, 12% in charting errors, and 7% in transcription errors, and 90% of the nurses highlighted that they were near to performing errors and the reason was overtime, long shifts, sleepiness, and headache. The result described in the research does not find any relationship between overtime and the effect due to age, hospital capacity, and units where they are performing duties (Rogers et al., 2004).

Discussion

We can narrate that there are factors that can impact the patient's safety. Most doctors rely on nurses, and they guide them with directions on how to practice with the patient and lead them towards betterment. The error ratio is high in medication administration, with the highest percentage.

Medical issues can arise if the patient is provided with the wrong prescription of medicine. It can lead to a hazardous situation and can be unexpected. The patient can develop severe health problems, a reaction in any part of the body, and external and internal disorders. Medicine is the main concern that must be delivered to the patient, and all patients depend on it. If misadministration happens, there could be a vulnerable situation for the patient, and it can create seriousness regarding the patient's health.

With long working hours, the nurses can get ultimately affected they could feel exhausted and burned out by the daily schedule they have. The nurse's behavior matters to the patient if it is disturbing, the patient will be unsatisfied and will be unable to recover properly because there is a need for proper attention and every patient has a different situation that they have to balance out during their

working. There are many patients enrolled every year in the hospitals, and for some time nurses have to handle 300 beds at the same time might be the cause of the shortage of nurses in the hospitals.

Long shift hours affect the sleep of the nurses and they are unable to get stable different kinds of diseases take place which is not even good for patients there could be a nervous breakdown and circadian rhythm disorder. In this condition, they cannot take good care of the patients. Also, they will be in need of medical assistance which is not good news for the hospital and even patients although many hospitals are facing a shortage of nurses and staff.

Conclusion

Proper research is needed to develop a link between the timing of nurses working an hour and the effects on patients because patients get to the hospital to get safe from revoking the disease from the environment. There is the absolute possibility of errors in nurses' efficiency because they will be conscious and will be unable to stabilize their health situation. Governments at the federal and state levels should legislate on this issue and take it seriously as a matter of social concern.

References

Rogers, A. E., Hwang, W. T., Scott, L. D., Aiken, L. H., & Dinges, D. F. (2004). The working hours of hospital staff nurses and patient safety. *Health Affairs*, 23(4), 202-212.