

Study Examines Working Hours and Feelings of Fatigue by Reported Nurses

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Abstract

The National Council of State Boards of Nursing has developed the Taxonomy of Error Root Cause Analysis of Practice-Responsibility (TERCAP) tool to evaluate nursing errors within the context of the individual, the healthcare team and the system. A component of the tool evaluates the working hours of nurses and fatigue experienced by these nurses. Other national and state organizations have also examined the issue. In an effort to begin understanding if working hours and fatigue are impacting the performance of nurses reported to the Board for nursing practice violations, the Board of Nurse Examiners for the State of Texas (BNE) staff collected information from the reported nurses and their employers beginning in February 2005. Though there are some limitations in the interpretation of the results, it appears that the majority of nurses reported to the BNE for nursing practice errors were not working overtime and were not experiencing fatigue at the time of the practice incident. This type of study could be expanded to review other aspects of nursing practice breakdown. The TERCAP may provide a template to capture this type of data for trend analysis.

The issue of healthcare worker fatigue and the implications for patient safety has received national attention and opportunities for research (Institute of Medicine, 2004; Rogers, 2004; Accreditation Council for Graduate Medical Education, 2002; American Nurses Association, 2005). A study by Ann E. Rogers, PhD, RN, (2004) of self-reports by staff nurses suggests that the risk of making an error is significantly increased when work shifts were longer than twelve hours, nurses worked overtime or they worked more than forty hours a week. The Institute of Medicine's (IOM) Report, *Keeping Patients Safe: Transforming the Work Environment of Nurses* (2004), presents research about the effect of fatigue on work performance and calls for the establishment of policies that address the working hours of nurses. The profession is also reviewing the issue of the working hours of nurses. In April 2004, the Texas Nurses Association's House of Delegates passed a resolution to evaluate the IOM's recommendations and determine if further action is needed to address the issue.

In an effort to understand the impact of this issue, the nurse investigators at the BNE began to collect information in February 2005 about the working hours of nurses (RNs and LVNs) reported to the board for errors in their nursing practice. Incorporating aspects of the National Council of State Board's of Nursing Taxonomy of Error Reporting and Root Cause Analysis (TERCAP), two questionnaires were developed in order to solicit information from reported nurses and their employers about working hours during the time frame of reported incidents. The questionnaires were sent to the nurse and the nurse's employer during the investigation process. Each nurse was asked about the number of hours worked and if they experienced any fatigue at the time of the incident. Because of anecdotal reports of nurses working more than one job, the reported nurses were also asked to list their employers and the number of hours worked in each facility. Information about the nurse's work hours on the date of the practice incident was solicited from the nurse's employer. We received 239 [N(number) = 117 employer & N = 122 nurse] responses.

Responses are presented in graphic format (See Graphs 1-4). As indicated in the graphs, the overwhelming majority of the nurses reported working for only one employer and working 40 hours a week or less at the time of the practice incident. Additionally, the vast majority of the nurses denied experiencing fatigue. Employers reported that the nurses were working primarily 8 hour and 12 hour shifts at the time of the practice incident. The employers' responses also reflect that the majority of nurses were not working overtime and had worked 2 to 3 consecutive days before the incident occurred.

The questionnaire was formatted to allow for any additional comments the nurses had about their feelings of fatigue. Most of the comments came from the nurses who responded affirmatively to experiencing fatigue. Comments included feelings of fatigue from

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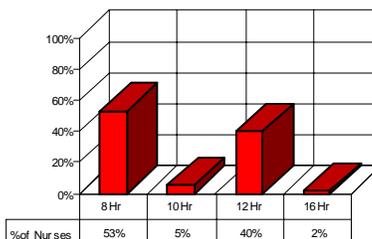
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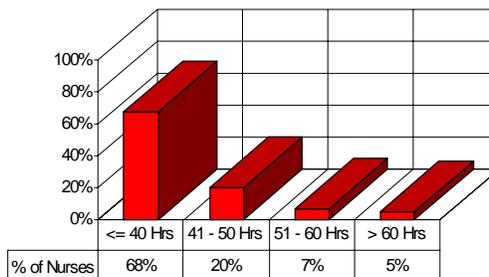
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Graph 1: Number of Hours Per Shift



Graph 2: Number of Hours Worked During Incident Week



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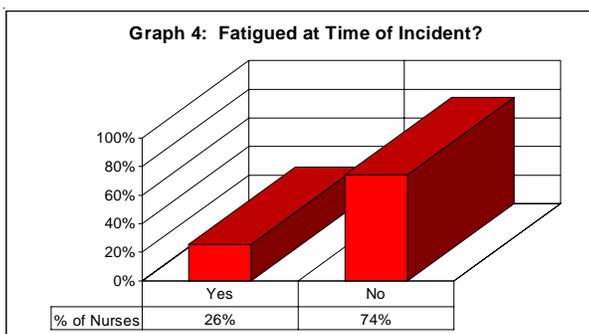
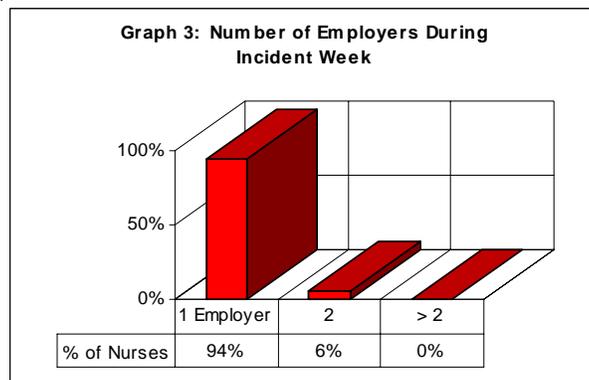
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workload, frustration with the job, stress from the job, illnesses, children's illness, pregnancy and being enrolled in school. Of interest is that some nurses indicated they were not fatigued, but overwhelmed and rushed. One nurse indicated that she was bored.

The results of this survey suggest that the majority of nurses being investigated for practice errors were not experiencing fatigue or working over forty hours a week at the time of the error. There are limitations in this conclusion in that it is unknown if some of the participants responded with what they perceived as the "right" answer because they thought they could positively influence the outcome of the investigation. Employer responses indicate that the nurses were not working "overtime." The question concerning overtime was dichotomous and required a simple "yes" or "no" response. This response is simplistic and further study would be needed to determine each employer's definition of overtime. A large percentage of nurses in the study were working 12 hour shifts at the time of the nursing practice error. Rogers' study (2004) indicates that nurses commit more errors when working shifts of more than 12 hours. Additionally, Rogers' study found that nurses leave work at the end of their regularly scheduled shift less than 20% of the time suggesting that nurses scheduled for 12 hour shifts are working over the "safe" time frame. Perhaps this type of "overtime" is a silent contributor to nursing practice errors.

This BNE study reviewed the number of working hours and fatigue experienced by nurses under investigation for nursing practice errors. The information revealed in this study and from instruments such as the TERCAP may assist boards of nursing in analyzing and understanding nursing practice errors.



New Forensic CE Required for ER Nurses

Senate Bill 39 (79th Regular Session, 2005) amended the Nursing Practice Act by adding Section 301.306, *Forensic Evidence Collection Component in Continuing Education (CE)*. A licensed nurse "employed to work in an emergency room (ER) setting" will be required to complete a minimum of 2 hours of CE in forensic evidence collection. This requirement may be met through completion of either Type I or Type II approved CE activities, as set forth in §216.4, and is considered part of the 20-hour CE requirement for licensure renewal.

Under proposed §216.3(6), the new CE requirement will apply to nurses working in emergency room settings that are: (1) the nurse's home unit; (2) an ER unit to which the nurse "floats" or schedules shifts; or (3) a nurse employed under contractual, temporary, per diem, agency, traveling, or other employment situations where duties include working in an ER.

The proposed rule will allow any nurse working in an ER setting on or before 9/1/06 to have two years (9/1/08) to comply with this new CE requirement. A nurse who begins employment in an ER setting after 9/1/06 would also have two years from the initial date of ER employment to obtain the mandatory 2 hours of forensic evidence collection. The proposed rule language for §216.3(6) is accessible in its entirety on the BNE web page under "Proposed Rules."

79th Legislature Addresses First Assisting

House Bill (HB) 1718, passed in the 79th Legislative Session, amended the Nursing Practice Act by repealing Sections 301.1525 through 301.1527 and adding Section 301.353. (Please note that there are currently **two** sections of the Nursing Practice Act that bear section number 301.353—one section added by SB 1000 and the other by HB 1718. Both sections are in effect). First assistant qualifications were moved to this new section. In addition, there is now a provision for currently authorized advanced practice nurses who are not certified in perioperative nursing to first assist provided they meet both of the following criteria:

- **Completed a nurse first assistant educational program approved or recognized by an organization recognized by the Board and**
- **Qualified by education, training or experience to perform those activities associated with perioperative nursing.**

The amendments to the Nursing Practice Act also added provisions for nurses at any level of licensure to assist under the direct supervision of and in the physical presence of a physician, dentist, or podiatrist. The physician, dentist, or podiatrist must be in the same sterile field with the nurse who is assisting.

As a result of these amendments to the Nursing Practice Act, the Board voted to propose amendments to Rule 217.18 at the October 2005 meeting. The proposed amendments will be published in the *Texas Register*. Links to the proposed rule language will also be available via the board's web site at www.bne.state.tx.us.

HB 1718 also made an amendment to the Texas Health and Safety Code. This amendment requires that circulating duties in the operating room be performed by a qualified RN. LVNs and surgical technologists may assist in circulatory duties if they are under the direct supervision of a qualified RN.

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