Poor nurse staffing leads to rising hospital-acquired illness in US

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6 July 2011

Two recent studies trace disturbing trends in patient care in hospitals nationally and internationally. The research highlights the relationship between poor nurse staffing in hospitals and long-term care facilities and the increased likelihood of adverse patient outcomes and nurse burnout.

According to a recent study by the Agency for Healthcare Research and Quality (AHRQ), “hospitals with low nurse staffing levels tend to have higher rates of poor patient outcomes such as pneumonia, shock, cardiac arrest and urinary tract infections.” Major factors that contribute to lower staffing ratios include the needs of today’s higher acuity patients for more care and a nationwide gap between the number of available positions, and the number of Registered Nurses (RNs) qualified and willing to fill them.

The average vacancy rate today is 13 percent and is expected to reach 29 percent by 2020. The number of nurses is expected to grow by only 6 percent by 2020, whereas the demand for nursing care is expected to grow by 40 percent.

A decline in the length of stay has led to increases in the amount of care required by patients while they are in the hospital. Patients who in the past would have continued the early stages of their recovery in the hospital are now discharged to skilled nursing facilities or to home.

During the period of 1980-2000, the average length of an inpatient hospital stay fell from 7.5 days to 4.9 days. This has led to a higher acuity of sick people and an increased workload for nurses—with no increase in staffing to assist with patient needs. This state of affairs is the product of the subordination of health care to the profit motive.

The *World Socialist Web Site* spoke to three RNs, with over 45 years of combined experience in a wide range of different health care settings, about short staffing and its effect on patient outcomes. Their comments confirm a deepening crisis in the US health care system.

Amy, an RN in Kentucky, said, “Medicare is going to pay the hospital for three days of care, but if you can get them out in two then it makes up for the next person who is going have to stay seven days. So, if you discharge them early you get paid for the three days. This is how hospitals run.”

Mary, another RN in Kentucky, added, “You’re going to make more money if you have a quicker turnaround.” Sue, an RN from Michigan working in long-term care, echoed these concerns: “The problem is that the hospitals are discharging patients sooner and sicker and the ratios have not changed on our end to reflect this dynamic.”

Adequate hospital nurse staffing is of major concern to positive patient outcomes. Nursing-sensitive outcomes are one indicator of quality of care. According to the AHRQ study, they are: “variable patient or family caregiver state, condition, or perception responsive to nursing intervention.” Adverse patient outcomes sensitive to nursing care include urinary tract infection, shock, pneumonia, upper gastrointestinal bleeding, longer hospital stay, failure to rescue, and a 30-day mortality.

Elaborating on the adverse affects of poor staffing, Amy said, “The reality is that hundreds and thousands of patients die, and it costs our nation $3.4 billion a year to take care of bad care—not good care—bad care. That’s from admission to discharge,” she said. “That doesn’t include rehab.”

“Say, for example, you go to the hospital and contract MRSA [Methicillin-resistant *Staphylococcus aureus*, a bacterial infection that is difficult to treat] and you get really sick and go to the ICU, and because you’re in the ICU you get debilitated and can't walk so you have to go to rehab—we only can measure the amount of money spent to take care of you during that acute care stay. It doesn’t include the rehab and all the follow-up care. That’s $3.4 billion a year. If we did what it took to stop making people sick—look at the money we would save. Spend a little on hiring more nurses to save a lot—not only in money but in lives.”

The AHRQ study finds that hospitals with higher RN staffing had lower rates of five adverse patient outcomes, (urinary tract infections, pneumonia, shock, upper gastrointestinal bleeds, and longer hospital stay), surgery patients had lower incidences of two adverse patient outcomes (urinary tract infections and failure to rescue). Furthermore, higher staffing at all levels of nursing was associated with a 2 to 25 percent reduction in adverse outcomes.

When asked why hospitals don’t have better staffing ratios, Sue explained, “They’re always making cuts and it always falls to the nurses to make sacrifices, but at my facility they recently hired a new executive and it has been three years since we’ve had a raise. My facility not only hired a new executive, they created a new management position called Senior Executive Director in addition to the Executive Director. Meanwhile, all other staff have gone without pay raises for three years. We’re taken advantage of every day.”

Pneumonia rates are especially sensitive to staffing levels. AHRQ concludes that:

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• Adding half an hour of RN staffing per patient day could reduce pneumonia in surgical patients by 4 percent;

• Fewer RN hours per patient day were significantly correlated with higher evidence of pneumonia;

• An increase of one hour worked by RNs per patient day was associated with an 8.9 percent decrease in the odds of a surgical patient contracting pneumonia; and,

• A 10 percent increase in RN proportion was associated with a 9.5 percent decrease in the odds of pneumonia.

Sue told the WSWS, "They're giving us sicker patients and they're not changing the ratios. We're doing more with less training and higher acuity". She added, "Patient safety would improve if acuity were taken into consideration when figuring staff ratios."

Furthermore, Amy noted, "The person providing care should make the decision about staffing and acuity. The advantage of staffing by acuity is that as your patients get sicker, you have more people to take care of them. In a perfect world, my staffing would ebb and flow. I'd have a closet full of nurses and as patients get sicker I pull a nurse from the closet. Say your baseline acuity is 3.5—the bad side about that is that on your bad days—say you reach a 5, you're not going to have enough nurses there to do the job.

"Staffing by acuity is a better way," Amy explained, "but you have to have a buffer—if your baseline is a 3.5, you staff for a 4.0 acuity. You need a buffer. The good thing about having a buffer is that if you have a slow day you can provide better care, like follow-up phone calls after patient discharge. Studies have shown that nurses who do follow-up care improve patient outcomes—especially with congestive heart failure. It directly impacts readmission rates just from following up with the patient."

Mortality is also associated with staffing levels. AHRQ found that a 30-day mortality and an increase in the likelihood of failure to rescue are more prevalent when staffing levels are lower. The study found that each additional surgical patient per nurse was associated with a 7 percent higher likelihood of dying within 30 days of admission and a 7 percent higher likelihood of failure to rescue. In the 168 hospitals sampled with a mean patient-to-nurse ratio ranging from 4:1 to 8:1, 4,535 of 232,342 patients died within 30 days of being admitted.

If the patient-nurse ratio had been as low as 4:1, then possibly only 4,000 patients might have died, and had the ratio been as high as 8:1, more than 5,000 might have died.

The study also found that 30-day mortality rates among AIDS patients were lower when there was both a higher nurse-patient ratio and an AIDS specialty physician service. For example, the study found that an increase of just 0.25 nurse per patient day would produce a 20 percent decrease in 30-day mortality.

The study concludes that higher nurse staffing hardly affects hospital profitability. In fact, some models suggest that money could be saved in the long run.

Mary commented, "When you look at the big picture, nursing salaries are such a small part of this. You bring in more nurses—you pay a little more in salary and you save so much more."

With regard to the long-term negative effects on the economy due to poor staffing, Amy said, "There are so many people that are impacted by hospital-acquired infections. If a mother gets a broken leg and develops a pressure sore in the hospital, who's going to take care of the kids? What about time off work? Who's going to pay for that?"

Another recent study issued by the American Public Health Association (APHA) found that increased workload leads to burnout of nursing staff and directly correlates to poor patient outcomes.

A full 40 percent of hospital nursing staff score in the high range for job-related burnout and more than one in five say they intend to leave their hospital jobs within one year. Organizational stressors in the work environment are important determinants of burnout, and subsequent voluntary turnover. Furthermore, burnout contributes to poor patient outcomes and lower levels of patient satisfaction.

The study analyzed data internationally of more than 700 hospitals, 43,000 nurses, and hundreds of thousands of patients. The data provided evidence suggesting that nurses working in hospitals that are below average on staffing experience significantly higher levels of nursing dissatisfaction and burnout, and more frequent adverse patient outcomes and poorer quality of care.

The study describes job-related burnout as a "syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment." Sue confirmed this reality: "Nurses are burnt out and exhausted—when you have a floor with 32 patients that's really hard on nurses and nurse aides. Patients are falling and hurting themselves all the time—with the staffing ratio that is never going to change."

Mary, speaking to the negative consequences of burnout and poor staffing, noted, "They don't have enough people there to make sure the patients are getting turned. They don't even look at their skin, a lot of times. They'll go through and if they are still breathing then they're good to go and they're on to the next one. Nurses don't get to do head-to-toe assessments because there is not enough time. You get in and do what you have to and get out."

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