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In Conversation With… Nicholas G. Castle, MHA, PhD

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Editor's note: *The topic of patient safety in long-term care facilities has not received the attention that safety in hospitals and clinics has. Nicholas G. Castle, MHA, PhD, a Professor at the University of Pittsburgh in the Department of Health Policy and Management, is one of the nation's experts in this topic. We interviewed him to explore some of the unique issues surrounding patient safety in the vulnerable nursing home population.*

Dr. Robert Wachter, Editor, AHRQ WebM&M: Tell us how you became interested in the topic of safety in nursing homes.

Dr. Nicholas G. Castle: Most of my work in nursing homes has revolved around assessing quality: what makes a quality nursing home and measures of quality. As a way of background, nursing homes aren't known for being high quality. There are some high-quality nursing homes, but for the most part they do have difficulties. We sent the Hospital Survey on Patient Safety Culture (HSOPSC) to more than 3500 nursing homes attached to some of our other survey work and got a 71% response rate. We looked at the results and compared it with what already existed, called the benchmark scores for hospitals. We had expected patient safety to be a potential problem, and that is what we found. We found that 11 of the 12 subscales from the HSOPSC were substantially lower in nursing homes than hospitals—a much lower or worse patient safety culture than existed in the hospital benchmark group.

RW: What was your hypothesis about the reasons for that?

NC: The biggest issue in nursing homes has to do with the staffing: staffing levels, use of agency (temporary) staff, and turnover. Some facilities have more than 300% turnover of staff in a year. With that high a turnover, you expect to have lower quality, and you would also expect patient safety culture to be problematic. We did find the lowest scores in areas of the survey that reflect staffing issues and transition between unit issues—similar to what we picked up before in our quality survey.

RW: Is there evidence that safety and quality in nursing homes is worse than in hospitals in terms of outcomes, events, and harm? Or is the evidence limited to what you've learned about the culture?

NC: The first survey was of administrators, and we did think we were getting a somewhat biased view by getting information only from administrators. Even though nursing homes rank themselves lower than hospitals, we thought that there was still probably some positive response bias—that the patient safety culture may be lower than even administrators believe. Patient safety culture is probably an amalgam of everybody in the facility, but if there is any particular group in a nursing home that is most representative of the culture, it has to be nurse aides because they give most of the care. We surveyed nurse aides, and we found that their scores were also much lower than the hospital scores and lower than the administrator scores, which was what we predicted. So again we're coming up with the conclusion that, at least in comparison to hospitals, nursing homes have poorer patient safety culture.

After that, we asked ourselves what does it mean? One of the nice things about working in the nursing home world is the availability of secondary datasets. One is called the Minimum Data Set or the MDS, which gives a lot of information about the residents (patients). In 2008, there were about 300 different data elements available: age, dementia status, length of time in the facility, and outcomes, such as whether they had a pressure ulcer or were put in physical restraints.

Looking at the patient safety culture of 72 nursing homes, we mapped on to that the MDS for residents within those facilities. We looked at the outcomes on falls, pressure ulcers, and restraint use. We found that places with the worst patient safety culture scores had an association with falls and use of restraints. We didn't find it for pressure ulcers. It was sort of tentative evidence that patient safety culture seems to be related to quality of care in the facilities. In this case, we moved on from the hospital instrument to a patient safety culture instrument that was actually designed for nursing homes (Nursing Home Survey on Patient Safety Culture or NHSOPSC).

RW: Is your ability to case mix adjust in the nursing home environment good enough that you can make sense of differences in falls and pressure ulcers across institutions and attribute it to safety and quality in the facility?

NC: We're very strong with this kind of work. A large body of work has done case mix adjustment using the MDS for clinical outcomes and process outcomes, such as restraint use and pressure ulcers. The limitation possibly is that it's done at the facility level. What we'd really like to do is look at the patient safety culture of a particular unit and the outcomes.

RW: Brian Sexton's work shows that the differences in culture from unit to unit in hospitals are greater than the differences going from hospital to hospital. Is your sense that there are a lot of differences unit to unit in nursing homes as well?

NC: From the work that we've done so far, yes, definitely—especially certain types of units, and probably the same thing with hospitals. At least within our field some units are super specialized that have residents with dementia. Others have sub-acute care, with very distinct dynamics and types of staff that work in them. Within a facility, we are finding some quite large differences in safety culture.

RW: I'm guessing that many of our readers don't know much about the organizational structure of nursing homes and the pressures to improve safety and quality. The Joint Commission inspects periodically at most American hospitals, and data about quality, and increasingly safety and patient experience, are now

publicly reported on the Web. Are there analogs to that in nursing homes, or is it a very different policy environment?

NC: You're correct that most nursing homes are not affiliated with The Joint Commission, although about 8% to 10% are. Recently, we identified nursing homes that are Joint Commission accredited—they voluntarily accredit themselves. They have to go through other certifications, which I can talk about next, but this particular group you would hypothesize are different because they volunteer to do this and they want to be Joint Commission accredited. The Joint Commission emphasizes patient safety, so we hypothesized that these nursing homes would have a favorable patient safety culture if they were Joint Commission accredited. We compared them to like facilities in the US and found that their patient safety culture scores were substantially higher in 8 out of the 11 domains. It was quite impressive how more well developed the patient safety culture was in these institutions. Now whether this was a causal thing, whether the Joint Commission facilitated that, or whether those with the best safety culture became Joint Commission accredited, I cannot tell you. But it was at least a nice verification that nursing homes following the mandates of The Joint Commission have a better patient safety culture.

Now these particular facilities and 97% of all other nursing homes in the country have to be Medicare and Medicaid accredited. The Center for Medicare & Medicaid Services (CMS) oversees and essentially subcontracts the process to each state, which has surveyors that inspect for quality to see that the Medicare and Medicaid regulations are being followed. Part of the inspection—there is such a thing as being given a deficiency citation, a subset of which are for safety concerns. Each facility is inspected about yearly; we got this data from 2000 to 2007, which had about 120,000 observations in nursing homes. We looked at the characteristics associated with getting deficiency citations for safety. A decent number of facilities got a deficiency citation. We found about 30% per year of facilities received an environmental safety issue citation and about 30% received a care safety issue citation; combined that is between 50% and 60% of facilities getting one of these citations per year and that actually increased from 2000 to 2007. So we cannot actually tell whether it increased because of more oversight by CMS or whether facilities are actually getting worse at providing appropriate safety standards for the residents. But it was somewhat surprising that we actually found so many citations in this area. We published that recently. It seemed to mirror or verify the patient safety culture surveys that were done previously—that facilities weren't really that good with patient safety culture.

RW: Is there public reporting of nursing home quality and safety and how does that work?

NC: Well, that is not quite that well developed. The nursing home information is very well developed in the sense just like Hospital Compare and Home Health Compare. There is something called Nursing Home Compare, and that compares staffing levels, deficiency citations, and quality measures whereby a consumer can compare one place to another. But they are mainly medical-based outcomes or process-based outcomes like pressure ulcers, use of restraints, whether a resident is in substantial pain or not. There is not one per se that highlights patient safety. Some of the deficiency citations obviously include patient safety, but there is not yet a subset that says this is a patient safety score or this is a patient safety culture score or anything along those lines. So in that sense, it's not front and center like it might be in a hospital room.

RW: What's the state of information technology (IT) in most nursing homes?

NC: I'd say poor. In many facilities the IT and the technology in general is relatively underused and not that available. Some barely have Internet connection. Most have programs that transmit data to the states because it's mandated. The MDS has to be transmitted to the state's central repositories; there's a computer program for that and vendors that provide that. Built on that, some vendors have put in things like scheduling software and accounts software. But, for the most part I'd say it would be a stark comparison between what exists in hospitals and what exists in nursing homes. The information they have is not that well used yet, if it's there. Right now, many of them assess satisfaction, and some satisfaction items might have some safety concerns, but I believe most of them still probably don't assess safety culture.

RW: If I walked into the average nursing home in the United States, would I find that they are doing root cause analyses of serious errors? Would I find an incident reporting system where people report errors or near misses? Would I find quality improvement or patient safety improvement projects? Those are three things that you might not have seen in many American hospitals 20 or 30 years ago, but you see in virtually all of them today.

NC: That is a very timely question. Most places I would say not. But again, there is always an exception and some nursing homes, nursing home administrators, and staff are really quite sophisticated. Recently one of the deficiency citations were modified to say that the processes used in nursing homes should move from quality assessment to a performance improvement mode, operating more along the lines of what hospitals do. So rather than just collecting information, they have to collect information and use a technique, whether it's Total Quality Management (TQM), Rapid-Cycle Continuous Quality Improvement (Rapid-Cycle CQI), or Lean. They have to prove or document that they've taken their information and made improvements upon that, and that will be released in 2013.

I know administrators are very aware of this and there is a large push to reeducate and provide tools such that nursing homes can actually do this. And when they get a deficiency citation for it, they can actually lose their licensure, they can be closed, and they can get fines of $10,000. If nursing homes respond to anything, it's citations from CMS. So this is likely to improve the quality understanding of many facilities. Now whether that will be for patient safety culture, I'm not sure. But you would hope that this would get them steeped in the kind of world whereby they could get some patient safety culture, resident satisfaction, and resident quality of life and to actually make more meaningful improvements.

RW: Hospitals are now feeling a lot of pressure to prevent readmissions because of federal initiatives that will penalize them. How is that influencing the environment in nursing homes?

NC: Actually the same way. I would say if there were any quality metric or any area that is really current and hot for nursing home administrators to worry about right now it's readmissions. I just returned from a provider conference, and the session that was standing room only was on how to prevent readmissions, what this means for the nursing home world, what you should be looking at, and what CMS is potentially going to look at. About 40% of nursing home residents are needlessly admitted to a hospital, and there are some financial incentives for doing that. If a resident could be admitted to the hospital, they can get a higher skilled nursing facility (SNF) rate after 3 days when they are readmitted back. They are also paid for

an empty bed in the facility to maintain it for the residents when they come back. So it's almost a win–win, if it were. So I guess 40% of admissions probably could be prevented, and that is an issue right now for most nursing homes.

Now nursing homes have to deal with some things that might be somewhat different from hospitals, such as staffing. A typical nurse aide is high school educated and has had about 2 weeks of training before she, and it's typically she, gives care in a nursing home. They have a particularly difficult job. It's a lot of heavy lifting and a lot of understaffing, and consequently their turnover level can be quite high. So the challenge nursing homes have is creating an appropriate patient safety culture with high turnover of staff that is less educated than you'd find in a hospital setting. Many are temporary staff that just come in for a day here or there, that the facility might have less control of. So some of the staffing issues seem to foster difficulties improving both quality and patient safety culture.

Beyond that, leadership in nursing homes is somewhat different from hospitals. It's very flat. Many facilities have a Nursing Home Administrator and a Director of Nursing, and that's it. There may be directors of each unit, but compared with the hospital setting, there is not a hierarchy of folks. What that tends to do is administrators themselves tend to turn over quite quickly. So even when something is instituted, the next administrator or director might come along and might have opinions on changing it. So getting traction on major changes in the way things are done in nursing homes can be quite tough just for the fact that people turn over so much.

RW: Given how poorly nursing home care is funded in the United States and how it's been a forgotten corner of the safety and quality field, do you find examples out there of places that do this really well?

NC: Yeah, and that's the curious thing. You've certainly hit the nail on the head with nursing homes; they are very underfunded. It's easy for us to talk about the care in nursing homes being poor and some of the issues they have, but their profit margins are very low, if existent at all, and Medicaid rates are constantly under threat. Typically they've been flat for many years now. Most nursing homes receive about 60% of their revenue from Medicaid residents. So they are highly dependent on government rates, which haven't been very good for a long time. One of the challenges is having the resources to do anything. But there are examples of folks that do very well and turn around facilities. In my particular area of research, the folks that have seen us do that are some of the more effective top managers. There are turnaround specialists that some of the nursing home chains have, but there are also just some very good nursing home administrators that seem to do the right thing at the right place at the right time. One of them is a friend of mine, David Farrell. He has a book on the leadership challenge in nursing homes, and he documents how he turned around a facility from a high Medicaid facility almost ready to close to one of the best facilities in California. You only need talk with him for 10 minutes and you'd certainly realize that it had to do with leadership and the way he went about doing things within his facility. It wasn't an influx of resources; it was purely a leadership thing.

RW: What keeps you up at night as you think about the aging population in terms of nursing home care over the next 20 or 30 years?

NC: Actually I get back to some of the top management and leadership. The cadre of folks going into nursing homes as Directors of Nursing and Nursing Home Administrators tends to be somewhat dissatisfied with the work environment and seems to be leaving at a higher rate than you find elsewhere. So if you look over time, the aggregate age of top managers in nursing homes has been getting higher, which means at some point we'll have a shortage of managers of nursing homes. I would want to hope that it would get better, but typically when you have a crisis like that a response might be just to get anyone to do the job. I don't think that will make nursing homes better, but I think that is an impending issue.

Beyond nursing homes, an impending issue might be assisted living. Assisted living is really quite unregulated, and I think over the next few years we'll find some of the same issues found in nursing homes in assisted living. Some are really having a hard time, and their quality is decreasing. That is something that we've started to examine with the Patient Safety Culture Instrument. We modified it slightly for assisted living to fit in, and we sent it to 572 administrators and 3600 workers and did the same thing that we did 10 years ago with our nurse aides in nursing homes. What we found is the patient safety culture of assisted living is about the same as nursing homes, which really surprised us. Assisted living is supposed to be mainly private pay, and you'd expect it to be higher quality and of higher patient safety culture, and that is really not what we found. We found quite a lack of concern for resident safety.

RW: With what you know about the safety and quality of care in nursing homes, if you had a loved one would you willingly put him or her in a nursing home?

NC: Actually that is something that I have thought about. It is a truism in our world that nobody wants to go to a nursing home and nursing homes are viewed very, very poorly. That is why we have something called aging in place, which means a lot of resources being put into providing care in a home setting: more home care, more elderly high rises, in a sense anything but a nursing home. I'm not sure it necessarily has to do with the nursing home itself. I think a lot of it has to do with by the time you are in a nursing home you are typically very sick and cannot do a lot of things for yourself. In many cases I'm not so sure that you wouldn't be just as dissatisfied somewhere else. That is one of the tough things that nursing homes have to deal with. Even if you are in a place you want to be, whether it's at home, with family, in an elderly high rise, you do tend to deteriorate to the point where you become a safety risk to yourself, your family, others in the building, and then you almost have very little option but to go to a so-called institutional setting.

Nursing homes are trying to improve the reputation and the kind of things they do. One thing that happened over time was nursing homes became very medicalized. They emphasized the nursing component of the nursing home. There has been a pendulum swing whereby now they are trying to emphasize the home part of the nursing home: getting rid of institutional things like uniforms, allowing residents to have visitors at any time of day and to eat whenever they would like, etc. I think that is improving nursing homes' reputation and it might be improving satisfaction. But one thing that you really cannot improve is: for many residents this is their last place. They are in ill health and they will die. So would I want to go to a nursing home? Would I want my loved one to go to a nursing home? I'd be like anybody else. I'd say I would try to pick the best one but I wouldn't be very happy about it.

But I do go to many nursing homes. There are many activities and there is joy in many places. It is not a matter of just housing residents in a room and watching TV all day or lining them up in corridors for meals,

which might have happened 10 years ago, but there have been a lot of improvements. So there is some cheer.