

Focus on...

Nurse Communication Technology



Using mobile technology to engage nursing staff

By Candace Smith, MPA, RN, NEA-BC

I'VE SEEN PLENTY of changes during my 30 years in nursing and health-care settings. I've also experienced many different work environments. In some hospitals, leaders fostered an efficient, collaborative culture using the latest best practices. In others, they struggled to keep staff engaged.

Katherine Virkstis, ND, practice manager for The Advisory Board in Washington, DC, shared results of a 2013 engagement survey for hospitals, titled "The National Prescription for Nurse Engagement: Best Practices for Enfranchising Frontline Staff in Organizational Transformation." The study found that registered nurses (RNs)

are both the least engaged and most disengaged staff members.

This is troubling, Virkstis points out, because nurses are crucial in efforts to transform care.

Hospital leaders need nurses to be their most engaged staff members. (See *Nurse engagement: The distressing facts*.)

So how can a struggling staff transform into an engaged staff? Smartphones and other mobile technologies have begun to play an important role in keeping teams connected to each other and to patients. When customized for the healthcare environment, smartphones are the glue that can hold units, depart-

ments, and staff members together.

Recently I met with some of the dedicated nursing staff at Sarasota Memorial Hospital in Florida. Nurses at this 800-bed medical center connect with their teams and respond to patients quickly via hospital-provided smartphones. On a trip to Lurie Children's Hospital of Chicago, I found a sense of camaraderie and cohesion among the nurses at this state-of-the-art pediatric facility. To stay connected to each other and in close contact with the patients and families they serve, they communicate with smartphones using a shared hospital directory that shows who's available and who's busy. This allows everyone to engage with patient care and family needs and to respond to each other efficiently.

Let's take a closer look at how smartphones engage staff by improving communication, generating a greater level of trust among teams, and fostering a positive culture.

Communication means engagement

As a nurse, you need to be in constant contact with colleagues on your unit and in other departments. Inefficient communication can lead to frustration. Who's available or busy? Who's on or off the unit? How can you reach a pharmacist, respiratory therapist, physical therapist, or social worker? What about the transport and environmental services teams?

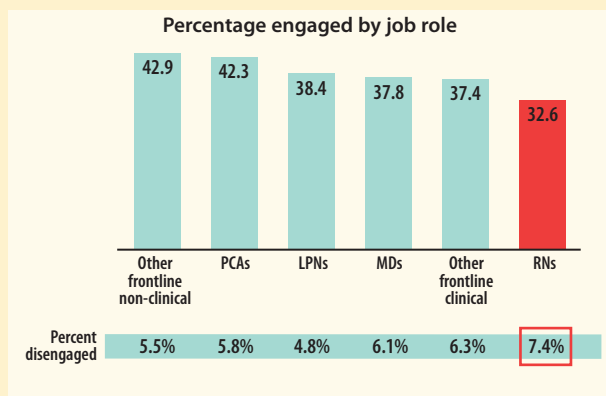
Here are some examples of how smartphone communication can keep staff engaged in complex care settings:

- *Connecting with other departments.*

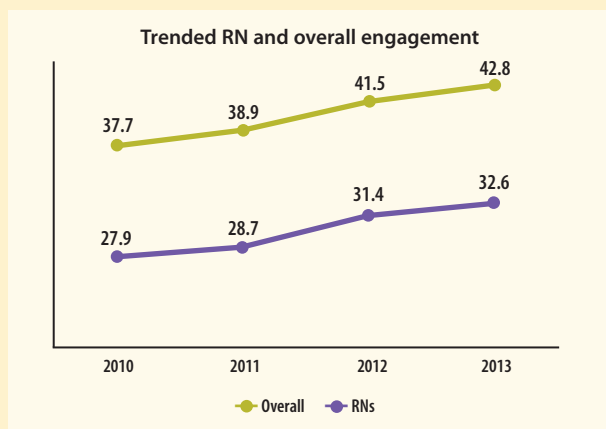
Smartphones are playing a key part in keeping team members connected.

Nurse engagement: The distressing facts

According to Katherine Virkstis, ND, practice manager for The Advisory Board, that company's National Engagement Database of more than 300,000 respondents at 250 health-care organizations shows registered nurses (RNs) are less engaged and more disengaged than all other frontline employees (see graph below).



Trended engagement data from the last 3 years (see graph below) finds that the gap between RNs and other frontline staff hasn't closed.



Graphs used with permission from The Advisory Board Company 2014, based on "The National Prescription for Nurse Engagement: Best Practices for Enfranchising Frontline Staff in Organizational Transformation."

Traditionally, pharmacists have worked in the basement of the hospital and have been hard to reach. With smartphones, nurses can send a text message asking pharmacists' advice or seeking their support.

- **Reaching specialists.** Respiratory therapists, wound care nurses, and other specialists roam throughout the hospital to work with patients, so they can be hard to locate. Using smartphones, nurses can send text messages or call specialists directly without noisy overhead paging or a prolonged search.
- **Bringing the whole care team together.** Nursing assistants and others traditionally have been left out of the communication loop. Smartphones empower

them with the connections and information they need to support nurses and patients effectively.

Building trust through technology

When you need assistance to reposition a patient, nothing's better than being able to find another nurse right away. A quick text message lets you reach out to request help without leaving your patient's side. If a new nurse wants to speak with an ICU nurse about a patient whose condition has changed, the new nurse can use a smartphone to call the ICU resource nurse directly to review concerns and changes.

In the hospitals I've visited that provide smartphones to nurses, the staff is much more positive because they know they can reach out to others and quickly receive confirmation that help is on the way. Unlike when they send a page or use overhead paging, nurses know immediately their message has been received. When they get a text message in response to their request, they feel someone cares. Healthcare organizations that provide the right technology to staff members foster their engagement by creating a trusting, positive environment where people feel good about the work they do.

Creating a culture of collaboration

Many organizations have made yearly improvements by strategically investing in engagement strategies. They use smartphones and other mobile technologies to promote patient safety, quality of care, timeliness, minimal interruptions, and a quiet environment. These technologies help prevent the communication breakdowns that can jeopardize patient care and negatively affect staff in general and nurse engagement in particular.

Another way smartphones foster inclusivity and connectedness is by providing a unified staff and provider directory. With just a tap, caregivers can search the directory by name, title, department, or unit, seeing at a glance which staff members are available or busy. This can affect the timeliness and effectiveness of care. Using smartphones to leverage the electronic medical record and barcode scanning with medication administration are additional ways mobile technology helps create a culture of collaboration.

Nurses in all healthcare settings touch lives. It's time for leaders to embrace mobile technology to help nurses work more efficiently and safely—and to see health care through a broader lens. Using smartphones to engage frontline nursing staff can improve communication, build trust, and foster a culture of collaboration. ★

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Evolution or revolution? Smartphone use in nursing practice

Smartphones can aid nurses' clinical practice, but they must be used in compliance with laws, policies, and procedures.

By Cheryl D. Parker, PhD, MSN, RN-BC, FHIMSS

SINCE SMARTPHONES were introduced in 2002, a communications revolution has taken place. We talk on our smartphones, we text on them, we take pictures and post them to social networks, we communicate in 140-character "tweets," and share our thoughts and events on our personal networks. We use smartphone applications to monitor our exercise, manage our calendars, and practice our deep breathing. For many people, forgetting their smartphone causes instant panic.

In health care, physicians' smartphone use has grown exponentially. Just 6 years ago, I listened as chief information officers (CIOs) at the largest healthcare organizations in Texas insisted emphatically that a bring-your-own-device (BYOD) policy would never happen in their facilities. Of course, things don't always go as planned. According to the Wolters Kluwer Health 2013 Physician Outlook Survey, approximately 80% of physicians now use smartphones in their work.

But in the context of nursing practice, the communications revolution is only now starting to make a direct impact. Most nurses continue to use voice-only phones, multiple pagers, or wearable voice-activated two-way communication devices provided by their employers. While we may use smartphones in our private lives, many of us still use outdated communication devices at work. Or do we?

After visiting healthcare facilities across the country, I'm convinced nurses are in on the communications revolution. I've seen them use their own devices—not those provided by their employers—to text other

healthcare team members (including physicians) outside the facility, access reference materials, and perform many other functions on their smartphones that aren't supported by employer-provided technology.

Is this a problem? For several reasons, increasing use of personal smartphones should raise concern for healthcare facilities. (See *Infection prevention for smartphones*.)

Legal and regulatory compliance

The foremost concern is legal regulatory compliance. Despite hospital policies forbidding use of personal phones by employees during work hours, 67% of hospitals reported in 2013 that their nurses used

personal devices to communicate and support their workflow. This means, in effect, that nurses could be violating federal laws (specifically, the Healthcare Insurance Portability and Accountability Act), hospital security policies, and the American Nurses Association's Code of Ethics. If they're sending protected health information (PHI) on their smartphones in a way that can be linked to a specific patient, they're also violating state nurse practice acts. Sending PHI could lead to loss of employment, financial fines, jail sentences, and loss of

one's nursing license. To make sure they're not jeopardizing their jobs, nurses must determine if their communication and workflow habits comply with applicable laws, policies, and procedures.

Cellphone security

What about security? Don't most people secure their smartphones? In a word, no. Two of five people sur-



veyed don't take the most basic smartphone security precautions. Criminal hackers are focusing more attention on smartphones than on other electronic devices, according to cybersecurity experts.

A 2013 survey asked 1,000 full-time American workers to describe their personal smartphone use in the workplace. Among respondents who chose health care as their employment sector, 88.6% said they used their personal phones for work purposes. Among all respondents, 39% said they don't password-protect their phones. Potentially more dangerous, 52% used their smartphones on unsecured Wi-Fi networks, such as those at coffee shops. Use of unsecured Wi-Fi is a well-known security vulnerability because it can allow for easy phone data theft.

Do you know if your smartphone's Bluetooth is set to "discoverable" by other devices, such as your hands-free headset? This is another security layer most people don't think about. Data on an employer-owned phone usually can be deleted remotely if the phone is lost or stolen. This is sometimes called "wiping" or "bricking," meaning the device is no longer functional because the operating system, programs, and data have been rendered inoperable. But it's rare that data on individually owned devices can be deleted remotely. So even if you never use your smartphone for work, ask yourself if you could delete all those pictures, texts, and emails if you lost your phone. Do you have a backup of your phone's data just in case you have to delete everything?

Who owns the phone?

Employers have the greatest control over devices they own and distribute. But even in a BYOD environment, employers can require installation and use of applications that provide the necessary security. Policies and procedures help outline what devices are permitted and specify security requirements to ensure password protection. In many cases, the standard four- to six-digit password is not secure enough; a hacker could crack a password such as 654256 in less than 1 second.

Policies need to spell out clearly who's responsible for smartphone-related services, including dealing with problems accessing the facility's secure network. Employers need to decide which applications are allowed, when updates must be performed to maintain application security, and what happens if the employee leaves the organization.

In a BYOD environment, wiping the device in case of theft or loss becomes an interesting question. If the device is storing both organizational and personal data, both types will be lost in the wipe. What are the rights of the individual and the organization in this situation? This is another area where policies and procedures must be made clear to all. If you're using your personal device at work, find out if your organization has a BYOD policy and ensure that you're in compliance.

In the future, certain communication exchanges may become part of the electronic health record (EHR). Such data, including pictures, shouldn't reside on smart-

Infection prevention for smartphones

It should come as no surprise that mobile phones are dirty. In 2012, *The Wall Street Journal* randomly chose eight cell phones of office employees to test for bacteria. All of them showed abnormally high coliform levels, indicating fecal contamination. And these are the phones of office workers. Imagine what microbes nurses' phones might carry, given our work environments.

Recently, products for ultraviolet disinfection for both personal and enterprise use have entered the market. Waterproof phone cases allow disinfection with commercially available disinfecting solutions without damage to the device. Are such disinfecting methodologies available to you at work? Are you disinfecting your phone at home?

phones no matter who owns them, but instead should be stored on a secure server with audit tracking.

Future of smartphones in nursing

Facilities considering use of smartphones for clinical staff need to think about clinical communication as part of the patient-care process instead of just replacing current phones and functionality. Nurses need choices in communication methods, including secure, encrypted texting and email. Communication must be put in a clinical context to properly identify the patient, who should be at the heart of the communication exchange. Use of pictures, such as of a patient's wound, should be part of the available communication methods even if the photos can't be uploaded to the EHR.

Even more important, just as smartphones give us cognitive support in our personal lives, we need to look for solutions that do the same in the complex work of nursing. Just as personal smartphones remind us that our best friend's birthday is next Saturday, nurses could use employer-provided smartphones and technology to help them in clinical practice.

If you're asked for input on your organization's next communication solution, consider the issues discussed in this article. It's not enough that your phone can send texts. Is your phone data secure? Can the phone be disinfected? Will it survive the rough-and-tumble healthcare environment? What's the vendor's vision for the future of its platform, and how will it support nursing practice?

Envision the future of smartphones that can assist us both as nurses and in our private lives. And envision yourself using a smartphone in compliance with laws, policies, and procedures in a way that's safe and secure. ★

Visit www.AmericanNurseToday.com/Archives.aspx for a list of selected references.

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Best practices for integrating technology into nurse communication processes

Technology can close communication gaps that separate nurses from patients and families.

By Rhonda Collins, MSN, RN

COMMUNICATION within a hospital, health system, or clinic is profoundly important. When it breaks down, clinical outcomes may be affected directly. According to The Joint Commission, 62% of accidental deaths and 80% of serious medical errors are linked to communication failures. Communication errors also can reduce the bottom line. University of Maryland researchers found communication inefficiencies lead to \$12 billion in excess costs or lost revenue annually.

Successful organizations create consistent, seamless care experiences at every stage of the patient's health-care journey—even beyond hospital walls to conduct follow-up by telephone at home or in skilled nursing facilities. Communication is the crux of these experiences—and communication between nurses and patients is especially important. Not only must we be present physically for patients and families, but we also must assure them we're fully aware of and actively managing all aspects of their care.

Care rounding and care calls

Care rounding and care calls can help achieve a more humanized approach.

- Rounding on patients can improve clinical quality and promote patient and staff satisfaction. Nurse rounding has had dramatic effects on care quality and satisfaction by decreasing call-light use and patient falls. Patients use call lights to notify nurses of both life-threatening issues and less urgent needs. When patients understand a staff member will be accessible on an ongoing basis via rounding, they tend to reduce their use of call lights for nonemergency requests.
- Care calls, or postdischarge telephone calls made by



nursing staff to the patient, bring the care journey full circle by helping to prevent adverse events and improve the quality of both patient and caregiver experiences.

When implemented simultaneously, purposeful care rounding and care calls can yield even greater increases in patient outcomes and satisfaction. Hospitals can take care rounding and care calls one step further by hardwiring these processes using intelligent, integrated technology. This can simplify communication and streamline workflows to help nurses work smarter, not harder. When incorporated into care rounding, technology can provide visibility in workflows, which helps management identify gaps in nurse communication and reward high performance. (See *Alarms for patient falls.*)

Organizations with standardized rounding practices have seen improvements in patient experiences, as shown by significantly higher scores on Healthcare Consumer Assessment of Healthcare Providers and Systems surveys. Technology allows these organizations to measure patient experiences in real time during a hospital stay, helping them to evaluate gaps and deploy improvement interventions.

How mobile technology can improve discharge education

Research shows that one of the most important components of the patient experience comes at the end of the hospital stay. Whether the patient is headed home or to another care facility, comprehensive discharge education is crucial. Missed, rushed, or ignored discharge teaching leaves both patients and the healthcare system vulnerable. Conversely, studies show that patients who understand their postdischarge care are 30% less likely to be readmitted or to visit the emergency department shortly after discharge.

Poor communication and coordination around the daily plan of care can pose a barrier to effective discharge. The plan of care should incorporate the entire inter- or multidisciplinary team, including rounding, to ensure that the team and the patient are “on the same page” throughout the stay.

During the discharge process, most organizations have nurses deliver instructions to the patient during brief bedside teaching and then provide complex paperwork, including details on new medications. But at discharge time, many patients are anxious or focused on going home and don't pay full attention to the instructions or read through the paperwork fully. A simple solution is to use mobile technology that allows nurses to record discharge instructions at the bedside, which patients and home caregivers can access later at any time by phone or computer. Blending best practices with technology solutions, nurses can improve patient understanding of and adherence to discharge instructions by:

- recording and attaching live audio instructions, videos, and pictures from a mobile device
- providing access to patient-specific education and links to valuable healthcare resources
- capturing and delivering information using applications compliant with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Health Information Technology for Economic and Clinical Health (HITECH) Act
- creating and sending text reminders, emails, tasks, and care messages to patients
- monitoring instruction retrieval.

Recording discharge instructions has shown to increase patient compliance, reduce unnecessary readmissions, and increase satisfaction.

To further reiterate important teaching and clarify postdischarge instructions, nurses should call patients

Alarms for patient falls

A serious safety problem, patient falls often result from simple inconveniences, such as items being out of reach. To reduce falls, healthcare organizations should explore technologies that route service requests to the appropriate contact or department to ensure patient needs are addressed quickly and efficiently. For example, the moment an unattended patient leaves a bed or chair, an alarm should send a message to the staff member responsible for that patient so he or she can act quickly to prevent a fall.

48 to 72 hours after they leave the hospital. The care-call process can be hardwired into hospital technology to streamline and standardize nurse workflows. Technological solutions may include best-practice checklists, call scripts, and even risk-stratification information, which can be used to identify patients at highest risk for readmission.

Using the performance analytics tool of the technology solution, hospital management can:

- audit discharge instructions and other patient communications
- ensure care instructions are handled consistently throughout the organization
- stratify patients most at risk for readmission
- monitor staff compliance and competency
- identify staff recognition and teaching opportunities.

Closing the gap

To increase patient satisfaction and drive growth and loyalty, healthcare facilities must be committed to providing humanized, seamless care. They can do this more effectively through such nurse communication processes as care rounding and care calls. These processes can be implemented into the nurse workflow through technology that builds trust and relationships and creates connectivity with patients outside the hospital walls. Closing the communication gaps that separate nurses, patients, and families improves patient and staff satisfaction and clinical outcomes while bringing financial benefits to the organization. ★

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