“Patient-oriented health care model means that the patient should be in the top of the system”

Kim Sears, RN PhD

Dr. Sears is an Assistant Professor at Queen’s University, School of Nursing; Associate Director of Master of Science in Healthcare Quality Program; Deputy Director/Healthcare Quality, Queen’s Joanna Briggs Collaboration

 Conducted by Natalia Mukhina, QIHI Journal Editor.

Dr. Sears, how could you define the notion of “quality improvement” in healthcare, and what is the Healthcare Quality program at Queen’s about?

From my perspective, quality improvement in healthcare means looking at the healthcare system with a lens to improve it! Years ago, the big push was on having people understand that there are problems in the healthcare system, and that it is not as safe as people thought it should be or was. Now people realize that there are problems with patient safety and there is a need to provide people with the theory and practical tools to improve the quality of healthcare that we deliver. At Queen’s we identified a need to address this gap and in 2012, we started our Master of Science in Healthcare Quality program. A
core value of our program is its interprofessional approach that is reflected in our students’ background and academic experience. For example, we have students from engineering, law, medicine, nursing, kinesiology, pharmacy, social work, architecture, etc. We have a wide variety of students exploring and advancing the science of Healthcare Quality. We need students from various areas of specialization to advance the quality of the healthcare system. We need people bringing their academic background and lenses of experience, to examine how we can improve the system. Likewise, our faculty is interprofessional from policy, business, education, engineering, nursing, law, and human factors. Previously, we accepted 32 to 34 students per year. Currently we receive between 160 – 170 applicants yearly and with plans to expand to 50 this has become a highly competitive program.

**What does the patient-oriented healthcare model mean?**

It means that the patient is the top priority in the system. The patient is the key person of focus. Advancements are centered on what the patient needs. Patients are key members of the healthcare team, and healthcare professionals work in collaboration with patients to identify key priorities. Once we have the patient as the focus, the hierarchy and the power struggles within healthcare should cease, because if you are making every decision based on the patient, it does not matter what your role is in the healthcare organization. In the absence of a power struggle, I believe that further advancement of quality will unfold.

**How would you formulate the guiding question of evaluation in healthcare improvement?**

It is extremely important to have a charter for a quality improvement project, because it provides the scope of the work and identifies your aim and target date. For example, the aim might look like “Reduction in patient falls by 10% as of December 10, 2016.” In this case, you have an actual target that you
are focusing on, and this provides a method of evaluating your overall target. The other point in evaluation in Quality Improvement (QI) is that we need to identify what data is required. When you are doing research, you might need a sample size of 200 people, to get a large enough sample. In QI, you might only need five patients with a certain problem to obtain your data. You evaluate those five and you make changes using a Plan-Do-Study-Act (PDSA) cycle. For example, imagine a fall prevention program. You study five people and find that the area rugs are causing falls, you remove the rugs and no one has fallen for a month. You do not need to assess walking in 200 people to see a difference. However, you may find that they are not falling and think this is great, but then you note that they are getting bed sores, because they are not getting out of bed! And that was a measure you hadn’t anticipated, another evaluation point that you hadn’t thought would come up. Then you say you want to get those people out of bed and you do not want them falling when getting out of bed. Then you try something else and you evaluate with another five. So, it doesn’t always have to be big projects. In QI, small tests of change can provide a way of trying improvements without the worry of large costs, unanticipated negative consequences and can supply a means to conduct many PDSA cycles to improve the plan with a quick turn time.

I believe with QI projects, people want to tackle big projects. Their goal is to fix the entire healthcare system. Often people are taking on large projects and are not always able to complete them. Projects have to be manageable in terms of time, and manageable in regards to the team of people you have within your organization. Data collection needs to on a scale that is doable. You might want to collect data on every patient, but you might only have one person in your area that is in charge of quality, and therefore is not realistic for the collection of patient-level data. Consequently, you have to collect unit-level data, and so on.
Is it possible to avoid medical errors totally, or is this just a dream?

I don’t think that we can completely avoid medical errors. Errors are going to occur because we are humans. Surely, people in healthcare do not think, “I’m going to make an error.” They think, “I’m doing my best and I’m trying my hardest!” But people might have a headache, or they were up late with a sick child the night before, etc. Errors will always occur because humans are involved. On the bright side, we have an opportunity to reduce errors by identifying and repairing a lot of system issues, and by understanding that we are not perfect. Further, we need to recognize that humans cannot perform under the constant stress that is bombarding them within the system. Therefore, systems need to be redesigned to be more fail-safe and decrease wrongdoing. Introducing expensive high-tech systems may not be a realistic strategy due to the cost. Perhaps two key factors should be examining wastes and extra steps in the process. As well, the adoption of technology can bring with it some additional systems issues that can lead to errors at different points within the system. For example, there was a unit that implemented a bar coding system but the scanner could not reach the patients in bed so nurses copied each of the bar codes and put them on the medication cart. This example illustrates how errors can still occur in places that we did not intend by work-arounds as systems do not always work how they are intended and that is why you always need to involve the front line staff and patients in the decisions that affect workflow on the unit.

The internet impacts our daily lives and we have access to a lot of medical information. Is the internet a good resource in terms of patient safety?

Having information is a good first step, because we do not always need to accept what healthcare providers say and not challenge it. I like when patients challenge and I like to be challenged as well. Because it is good! It makes you
think, “Am I on track?” Providers should be open to discussing decisions related to patient care and patients should know how to advocate for themselves. The focus is on the patient. However, when reading items on the internet every patient should ask the question: “Is this a credible site and is this information credible?”

The internet and information technology in general may be very helpful. It is never harmful to get information, but a patient needs to exercise common sense and judgment. You can take the information someone is giving you whether on the internet or in person but you need to evaluate the credibility of the information.

**What do you think would be identified as the most serious reason for errors in healthcare?**

If we look at errors in healthcare, approximately 70% are related to miscommunication. If I could redesign the system, I would make sure communication is a core theme in all healthcare education. As well, I would advocate for interprofessional education throughout the educational courses for all healthcare professionals.

**Why and how did you become involved in the area of healthcare quality improvement?**

When I was a staff nurse on the unit, I always challenged as to why things were done a certain way. For example, in one of the units I worked on, they were giving medication a certain way with the babies, and I asked, why?

Because I was unsure about the answer, I conducted a literature review, and I contacted different hospitals, and studied their best practices. Even as a practicing nurse, I challenged the way things were done, to see if there is a better way. When I did my master’s degree, I did a couple of clinical placements in neonatal intensive care unit, at different hospitals, and saw the
best practices. Then, for my PhD, I wanted to focus on something safety- and quality-related, so I examined the occurrence of pediatric medication administration errors in the work environment, and how the work environment led to errors.

I decided if I was going to spend time in doctoral studies then I wanted to make sure my time was well spent. I decided if I could prevent a child from experiencing a medication error, or prevent one nurse from giving the wrong dose and maybe leaving the profession after being devastated if they had harmed or killed somebody, then my work would have been worth it. So, I’ve always been really passionate about how and why we do certain things and how we can improve.

I know there are vast areas for improvement within our present healthcare delivery system. That is how my passion came to be. When I came to Queen’s, I wanted to teach some aspect of safety and quality, and I was presented with the opportunity to help start the MScHQ program at Queen’s. I am very thankful for the opportunity I have been given as I realized I could follow my passion and contribute to patient safety and quality.

**Can you describe your current research interests?**

My research has always focused on medication safety. My doctoral work focused on safe medication administration in hospital and then I did my post-doctoral fellowship at Dalhousie University, where I worked with a pharmacist Dr. Neil MacKinnon. In my postdoctoral work, I was trying to broaden my scope of medication safety beyond the administration stage. As well, I looked at safe medication delivery in the community. During my post doctoral fellowship, I looked at communication pertaining to medication safety with patients related to physicians, and I found there was a gap in knowledge for patients in the community. My work after that was in patient risk factors for the occurrence of medication errors. There are certain factors that patients have that we really
need to target, because they are at higher risk for an error. For example, I have found age, knowledge level, and increased number of medications can increase an individual's risk for errors.

Recently, I started doing some work with large databases, using some of the Institute for Clinical Evaluative Studies (ICES) Data. I have studied adverse drug events in children. The literature identified that approximately 75% of children patients are getting medications that are considered off-label. They have never been tested in children, but they are being administered adult doses, downsized for children. But we don’t know how safe they are. As well, I have explored the risk of medication errors for elderly people with chronic diseases. In addition, I studied community pharmacies and the risk for errors.

Also, I conduct systematic reviews. I am the Deputy Director Healthcare Quality for the Queen's Joanna Briggs Collaboration, which is a Canadian Centre of the Joanna Briggs Institute. We explore data and suggest recommendations for change, for safer medication delivery, measuring/identifying factors associated with the occurrence of medication errors with children, and adults in community settings. Research is something I'm so passionate about and is a large part of the MScHQ program. Knowledge translation is something we strive for, and we prepare our students to transfer this knowledge to their work environment. It is my goal that, we can achieve patient-centred care that reduces risk, advances quality and focuses on safety in healthcare.

Thank you for the interview.