

Helping phlebotomists ease pediatric patient anxiety

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June 2017—“It’s the most talked about pain kids experience, even more so than post-op surgical pain.”

Julie Piazza, a certified child life specialist, is referring to needlestick pain from pediatric blood draws. As project manager for patient and family-centered care at C.S. Mott Children’s Hospital in the University of Michigan health system, now known as Michigan Medicine, Ann Arbor, Piazza has observed anxiety at both ends of the needle.



Piazza

Years of helping pediatric patients and their families cope with blood draw fears motivated Piazza to consider the phlebotomist’s perspective. Piazza conducted a study focused on phlebotomists’ education, training, experience, and stress levels. She discovered a discrepancy between what the literature recommends for addressing children’s fears and anxieties and the child development education phlebotomists receive, if any.

In addition, “There’s a lack of knowledge about aligning with another discipline and helping to support some of these training initiatives, as well as how to address education for the needle-phobic society we live in,” Piazza says.

Working with an interdisciplinary research team, Piazza used focus groups, surveys, and observation to determine how to best support the use of distraction and other comfort techniques in pediatric blood draws, as well as education about the blood draw process for providers, patients, and their families.

“I witnessed fear as I shadowed phlebotomists and learned more about their role,” Piazza says, adding that her research also revealed “a concern about caring for the pediatric patient and what that involves.”

A focus group of phlebotomists from two off-site facilities helped Piazza craft questions for the phlebotomist survey. Focus group discussion unearthed concerns Piazza had not considered, including that phlebotomists often have to improvise distraction techniques. “They’re working with things that are close by to them, so they’re lowering lights, or singing, or asking patients to sing ‘Happy Birthday,’” Piazza says.

Phlebotomists also expressed unease about the urgency they feel to complete blood draws, deliver samples to the lab, and move on to the next patient. “It’s rare that someone is caring about phlebotomists,” Piazza says. “It’s more, ‘Hurry up, we need this from you.’”

The general phlebotomy online survey, which Piazza sent to 215 Michigan Medicine phlebotomists, 128 of whom responded, revealed that 67 percent of phlebotomists experience some level of stress during pediatric blood draws. Phlebotomists pointed to technical issues, such as not finding a vein, and the anxiety of the parent and child as major sources of such stress.

When asked what techniques they used to address pediatric patient anxiety, nearly all phlebotomists reported using comfort techniques that did not require additional resources, such as positioning the child in a parent’s lap or speaking reassuring words.

Sixty percent of phlebotomists reported using distraction devices, such as iPads, bubbles, and toys; 28 percent

used topical anesthetics, sucrose, and the Buzzy device; and 26 percent reported calling child life specialist support for assistance.

"What I took away from that was they were going after something that was either nearby or something they picked up along the way," Piazza says. "It wasn't necessarily what they were trained to do.

"Their training, I found, was much more technique based."

In the third phase of the study, Piazza's research team observed 12 phlebotomists in practice to see which comfort techniques they used. The researchers observed the phlebotomists perform at least five different blood draws on different days, from the point when the child entered the room until the time the phlebotomist finished the blood draw, applied bandages to the patient, and was preparing the sample for delivery to the lab. Over the course of the study, the team observed 120 venipunctures on patients ages three to 14 years.

"We were looking at whether that child was prepared, step by step," Piazza says.

One of the key observations was whether the phlebotomist introduced himself or herself to the patient. The 12 phlebotomists in the study introduced themselves to a pediatric patient 58.8 percent of the time before drawing the child's blood. The number was "lower than we had hoped," Piazza says, because introductions and building a rapport lessen a child's anxiety.

The researchers also observed whether the phlebotomist used comforting techniques, such as soft words ("slide" versus "stick," or "straw" versus "needle"); positioning; devices, including Buzzy or a numbing medication; distraction, such as singing, counting, or telling a story; or calling for child life specialist assistance. They also looked for whether the phlebotomist used words of coaching or support, such as, "Take a deep breath," "I like how you sat still," or "I know it hurts."

The researchers' observation of children's fear, as measured by the Adapted McMurtry Fear/Anxiety Scale, showed that children younger than age 10 consistently exhibited the most fear; if they were fearful before the blood draw, they carried that fear throughout the procedure. "What could that phlebotomist have done to help reduce that fear?" says Piazza.

She included family and parent interaction in the study, in keeping with the patient/family-centered care model of C.S. Mott Children's Hospital. Observers noted, for example, whether phlebotomists followed parents' suggestions for easing their child's anxiety and how much fear the parents exhibited.

Input from the C.S. Mott Children's Hospital patient, family, and faculty advisory council guided the parent survey portion of the study. "What the advisory council told me was very much relevant—that kids were very afraid," Piazza says. Parents also expressed their own anxiety about feeling at a loss when it came to helping their children, saying, "Once I get a good phlebotomist, I want him every time." "But that's not exactly practical," Piazza says. "That's not patient-centered care, to request the same person every time. They have to be able to feel they have coping strategies that can help whoever it is they are getting for a provider." This made clear the need to address how to help patients and families receive their care, she says, in addition to training and educating providers on individualized patient comfort care.

Parents were asked to answer the same questions about comfort techniques that the phlebotomists answered in their survey. Piazza found discrepancies between what phlebotomists self-reported about using comfort techniques and what parents observed. For example, 99 percent of phlebotomists said they used comforting words with pediatric patients, but only 68 percent of parents reported hearing their child's phlebotomist use such words. Also, 94 percent of phlebotomists reported using positioning for comfort during blood draws, but only 67.6 percent of parents reported seeing phlebotomists use comfort positioning for or offer it to children ages three to 10, and 17.4 percent for children ages 10 to 14.

Piazza and her team are analyzing their data, with a focus on improving training for phlebotomists by developing an education and training toolkit. "What we found in our survey was that phlebotomists had minimal training, if

any, in child development,” Piazza says. “Something we can add to our training enhancement is to have them shadow a child life specialist and have them learn some of the distraction tools that are effective and appropriate based on development, and based on that child’s needs assessment.” Learning how to quickly build rapport with pediatric patients would be another beneficial skill, she says.

The parent advisory council suggested additional preparation for phlebotomists working with children with special needs, including children on the autism spectrum, who may need particularly supportive distraction items, Piazza adds. This aligned with phlebotomists’ reports that they need additional support to care for children with special needs and to address the anxiety of patients and their families.

Piazza’s long-term goal is for phlebotomists to feel “they are getting what they need in order to feel more success and confidence” when performing pediatric blood draws. The study was a positive experience, she says, and she appreciates phlebotomists’ desire to help improve their training and get additional support.

“We had phlebotomists saying they knew this was a problem, and they were happy to be able to be a part of something that can hopefully help other phlebotomists in other locations,” she said.

She also hopes to create more effective partnerships between phlebotomy and child life staff. “It’s important to initiate these partnerships to effectively address the patient experience and help improve outcomes. It is definitely a team approach,” she says.

Piazza presented her research in a poster at the Clinical Laboratory Management Association Knowledge Lab in March, and she is scheduled to deliver an oral presentation at the American Society for Clinical Laboratory Science Annual Meeting and Exposition in August.

Piazza’s poster at the CLMA meeting generated several attendee comments on the importance of the patient’s comfort. “I think that the environment of getting the right results in the most supportive and humane way is really where this will roll,” she says, and she hopes her research will help lead to greater comfort for patients and providers.

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New phlebotomy staffing and competency studies

The CAP is offering two new phlebotomy-related Q-Probes studies, on staffing and competency, and a Q-Tracks on patient satisfaction with outpatient specimen collection.

Q-Probes 173, Phlebotomy Staffing, examines an institution’s phlebotomy staffing levels, tasks performed by phlebotomy staff in addition to venipuncture, and general phlebotomy practices such as number of staff, wait times, and complications of phlebotomy. Data are to be collected during one week at inpatient and outpatient locations (participants need not have both locations). Institutions will be able to provide data for up to two inpatient sites and up to three outpatient sites.

Q-Probes 174, Preanalytic Errors Competency Assessment, includes five videos viewed through e-LAB Solutions Suite or on an Internet alternative site. The study is appropriate for any medical staff member who procures blood samples: phlebotomists, laboratory technology staff, nurses, nursing assistants, patient care technicians, and others who provide samples to the laboratory.

Each participant in the competency study will receive a master list for error check-off during the videos and their own result form. Result forms can be faxed to the CAP, or supervisors or other staff coordinators who have access to result forms can enter the responses on e-LAB Solutions Suite. There is also a general questionnaire about

training for staff members who collect blood and a general practices questionnaire for the supervisor/medical director (nursing supervisor if appropriate) regarding laboratory practices for phlebotomy. The laboratory will receive 15 result forms for 15 viewers; if additional result forms are needed, more kits should be ordered. Each enrolled institution will receive an overall report of its results and an individual report for each phlebotomist.

Q-Tracks 7, Satisfaction with Outpatient Specimen Collection, has four mailings per year and can be started mid-year. Participants will receive reports of patient ratings and performance indicator trending for their outpatient phlebotomy site.

Q-Probes 173, Phlebotomy Staffing, was sent to participants on June 12 and can be ordered through July 6. Q-Probes 174, Competency Assessment, will be sent to participants on Sept. 6 and can be ordered through Sept. 29. Q-Tracks 7 is available throughout the year. To enroll, contact the CAP customer contact center at 800-323-4040 option 1. If you have questions, contact Barbara Blond at bblond@cap.org.