How Phlebotomist Training, Experience and Use of Comfort Techniques Impacts Pediatric Patient Experience and Clinical Practice

Knowledge Gap: Phlebotomist Training Related to Comfort Support

- Reported Pain and Dissatisfaction Related to Pediatric Blood Draws by Patients, Families, and Staff
- Unmeasured Use of Comfort Support
- Training Inconsistencies
- Missing Front-Line Clinical Perspective

Research Goal: to provide evidence that influences local, regional and national standards for phlebotomy training to improve the quality of pediatric healthcare experiences.

Learning Objectives

- Describe how patient and family engagement can build staff engagement, individualize care and enhance training for laboratory professionals.
- Describe how interdisciplinary collaboration can impact individualized care and help reduce pain and anxiety.
- Learn how to use research in clinical practice.
- Identify comfort techniques being used by phlebotomists and how front-line perspectives have created more resources and support for improved patient experience.

Phlebotomists: Face of the Laboratory

- Venipuncture
- Accessing/Drawing Implanted Ports
- Central Line Draws
- Patients of Varying Ages
- Computer Systems: MiChart, Soft LIS, SoftID

Phlebotomy Standards of Practice

NAACLS Unique Standards for the Phlebotomist*

"Ability to relate to people, capacity for calm and reasonable judgment, and demonstration of commitment to the patient are essential qualities..."

How is this being taught, implemented, and used in phlebotomy practice?

“It’s Not Just a Blood Draw!”

A (blood draw) procedure should be considered a biopsychosocial experience rather than simply a task to be completed by the healthcare provider ... and may require a multimodal pharmacological and non-pharmacological approach.*

*Czarnecki, et al. (2011)
PARADIGM SHIFT

Laboratory Focus
- Quality Specimen Collection
- Accurate Test Results
- Timely/Cost Effective

Patient Focus
- Heal Me
- Keep Me Safe
- Be Nice to Me
- Do the RIGHT Thing
- Minimize Pain/Anxiety

Joint Commission
Food and Drug Administration
Center for Medicare/Medicaid Services
College of American Pathologists
COLA

Quality
Outcomes
Patient Focus
Value Based Purchasing

Framework for Understanding Pain
Led to Research Need

- No single gate in spine/brain turns pain off/on
- Factors that increase/decrease pain
- Focus on targets to tackle pain
  - Body: pain reduction
  - Mind: distraction
  - Spirit: individualization
  - Social: communication

Multimodal approach to pain and comfort

Patient Experience Speaks...

How it works?
Poke and Procedure Plan at Michigan Medicine
Children's Hospital

Reasons for RESEARCH

1) Patients, Families and Staff Reporting Pain, Dissatisfaction and Stress Related to Pediatric Blood Draws
2) Venipuncture and IV Insertions are Major Sources of Pain in Pediatric Procedures
3) Need to Improve this Pediatric Patient Experience for All Involved

Study Team
Phlebotomy Research Phases

Research Aim 1: to examine phlebotomists' knowledge, education/training, stress level, and use of comfort techniques related to performing pediatric blood draws.

Methods
Phase 1: Focus Groups with Outpatient Phlebotomists
Phase 2: Online Survey System Wide of General Phlebotomists
Phase 3: Observations of Pediatric Phlebotomists

Focus Group Feedback
Sample Question:
“Describe a time when you performed a difficult pediatric blood draw and share how you handled it.”

- “I assess the patient and listen to what may work best for each one.”
- “Sing.” “Lower the lights.” “Involve the parents as much as possible.”
- “Reassure the parent that we will provide excellent care and comfort for both parent & child.”
- “Comfort like they are my own child & educate them.”
- “I use the technique of asking the child to blow out birthday candles during needle insertion.”

Survey Results: Characteristics of Sample Phlebotomists
Survey Respondents: n = 128 (60% RR)
Mean # Years Doing Peds Blood Draws = 8.6 years (+/ - 5.4)
Range = 0-15 years
Self-Reported Knowledge of Peds Blood Draws
86% moderate to high level
14% none to slight

Phlebotomists' Training
50% attended certificate or in-hospital training
47% lacked specific training in child development
35% one or more courses in child development

Survey Results Told Us . . .
The Most Common Barriers Identified by Phlebotomists During Blood Draws:
70% Patient technical issues; not finding a vein
61% Anxiety of the family and child

Survey Results: Phlebotomist's Stress During Pediatric Blood Draws
Q 1: On a scale of no stress to high level of stress, how much stress do you experience when performing a pediatric blood draw...

<table>
<thead>
<tr>
<th>Answers</th>
<th>% Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>No stress, easy</td>
<td>33%</td>
</tr>
<tr>
<td>Minor</td>
<td>42%</td>
</tr>
<tr>
<td>Moderate</td>
<td>17%</td>
</tr>
<tr>
<td>Quite a lot</td>
<td>8%</td>
</tr>
<tr>
<td>High level of stress, upset</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Survey Results: Comfort Techniques Used Most Often for Pediatric Blood Draws
Q 2: Which of the following comfort techniques do you offer to a pediatric patient during a blood draw...

<table>
<thead>
<tr>
<th>Answers</th>
<th>% Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words of explanation, reassurance, support, preparation, comfort, etc.</td>
<td>99%</td>
</tr>
<tr>
<td>Position options (child on lap/sitting up/ holding parent’s hand, etc.)</td>
<td>94%</td>
</tr>
<tr>
<td>Distraction (iPad, bubbles, toys, etc.)</td>
<td>60%</td>
</tr>
<tr>
<td>Drugs and devices (Buzzy, topical anesthetic, sucrese, etc.)</td>
<td>48%</td>
</tr>
<tr>
<td>Call for Child Life support / assistance</td>
<td>16%</td>
</tr>
<tr>
<td>Other, please describe</td>
<td>20%</td>
</tr>
</tbody>
</table>

Comfort Techniques Used Most Often for Pediatric Blood Draws
Outpatient Phlebotomy Observations

- Consented Children 3-14 years old
- Observed Phlebotomists Performing 5 Peds Blood Draws
- Phlebotomists Rated by R.A.’s and Parent/Caregiver
  - Comfort Techniques Used were Identified
  - Comparative Ratings of Child’s Fear/Anxiety
- Compared Evaluations by R.A.’s and Parent/Caregivers
- Results were Coded and Analyzed

Observation Study - Phase III

- Age qualify for study (3-14 yrs)
- RA explains study to parent and child
- Blood draw observed by parent and RA
- Parent RA evaluate child’s pain and comfort measures
- RA Completes Evaluation
- Parent Receives Gift card

Surveys ➔ Clinical Observations

Aim 2: Investigate association between phlebotomists’ use of comfort techniques and parents’ perceptions of their child’s fear/anxiety during observed blood draw experiences.

Hypothesis: Moderate associations between phlebotomists’ use of comfort techniques and parent perceptions of child’s fear/anxiety during blood draws.

Comfort & Pain Measures

Evaluate - Child’s Comfort/Pain*

Today during your child’s blood draw how much stress did they experience?

- No stress
- Mild stress
- Medium stress
- Most stress
- Devastating stress

*Adapted McMurtry’s Fear/Avoidance Scale

Study Results - Phase III

Child Observed Fear During Blood Draw By Age Group Parent Observations

- 3 yrs 51%
- 4 yrs 57%
- 5 yrs 41%
- 6 yrs 34%
- 7 yrs 27%
- 8 yrs 21%
Observation Study Results

Phlebotomists’ Knowledge Self Ratings

Comfort Measures

(scale = 1-5; 5=high/1=none)

7% 13% 20% 27% 33%

Phlebotomists’ Knowledge Self Ratings

Comfort Measures

(scale = 1-5; 5=high/1=none)

Observation Study Results

Use of Comfort Measures During Pediatric Blood Draws

Pediatric Phlebotomists’ Training, Experience and Knowledge Levels

Evidence-Based Conclusions

- Individualization of Comfort Measures Improves Patient Experience
- Partnering with Patients and Parents is Critical
- Enhancing Phlebotomy Training to include both Child Development and Comfort Techniques is Beneficial
- Paradigm Shift has Contributed to Greater Collaboration with Other Providers
- Learning to Work with Support Providers like Child Life Specialists may Improve Pediatric Blood Draw Outcomes
- Knowledge Based on Evidence (patient/family experience) Enhances Job Performance
- Shared Experience in Research Process Builds Staff Engagement & Quality Improvement

Recommendations

- Development of Education Toolkit for Pediatric Phlebotomists
- Increase Internal Education & Support for Handling Anxious Children and Parents
- Include Child Life Specialists for Pediatric Phlebotomy Procedures
- Pediatric Patients Respond Positively to “Voice & Choice” and Coaching for Comfort
- Enhance Environmental Supports for Distraction and Comfort
- Continue Monitoring Use of Comfort Techniques in Phlebotomy

What We Learned

The capacity to learn is a gift; the ability to learn is a skill; and the willingness to learn is a choice.

~ Brian Herbert ~

Questions??

- Do you have a story about engaging families in your laboratory process?
- Do you have a patient story about how you can improve patient care in your area?
- What will you take back to add to your patient care comfort resource bucket?
- Other ideas for implementing Comfort Techniques in Phlebotomy?
References


Resources

LINKS To Michigan Medicine Sites:

“Talking to your child about Needlesticks and Procedures”
C.S. Mott Children's Hospital – Michigan Medicine
http://www.mottchildren.org/mott-patient-visitor-guide/needlesticks-procedures

Poke & Procedure Plan Tech Transfer Link – Michigan Medicine Poke Plan

Comfort Positions Video for Parents
http://healthblog.uofmhealth.org/childrens-health/try-these-3-comfort-positions-at-your-childs-next-checkup

Further information: Julie Piazza – julipiaz@med.umich.edu
Harry Neusius – hneusius@med.umich.edu

Grant Funding

This project was supported by a grant from the National Center for Advancing Translational Sciences (NCATS).

number 2ULTR000433-06

Contact for follow-up questions:

Julie Piazza julipiaz@med.umich.edu
Harry Neusius hneusius@med.umich.edu