

Dear Colleagues,

We are pleased to inform you that we have completed the analysis of qualitative interviews for the Consortium for Congenital Cardiac Care - Measurement of Nursing Practice (C4-MNP) state of practice assessment regarding nurse recruitment, training, and retention in the pediatric cardiovascular operating room (CVOR).

The purpose of the C4-MNP state of practice assessment regarding nurse recruitment, training, and retention in pediatric CVORs was to describe current methods for recruitment, training, and retention of CVOR nurses in freestanding pediatric hospitals in the United States, and make recommendations to improve practice.

This qualitative exploratory inquiry was developed by Roderick McArdle BSN, BA, RN, CNOR, practicing in the CVOR at Boston Children's Hospital. Roderick is also a Nursing Science Fellow at Boston Children's Hospital.

The invitation to participate in telephone interviews was sent to CVOR nurse leaders at 13 C4-MNP centers and 6 centers agreed to participate. Below, please find the aggregate result report.

We would like to extend our heartfelt appreciation for your continued commitment to this collaborative as we work to improve outcomes for pediatric cardiovascular patients and their families.

Sincerely,

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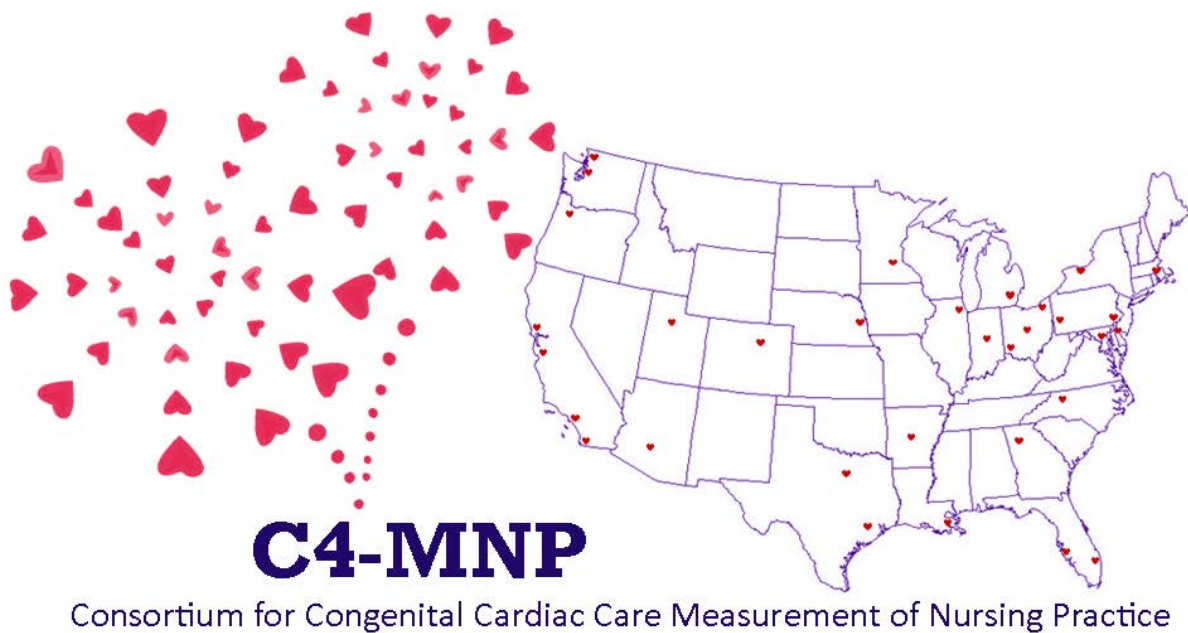
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Consortium for Congenital Cardiac Care – Measurement of Nursing Practice

State of Practice Assessment Qualitative Result Report

Recruitment, Training, and Retention in Pediatric Cardiovascular Operating Rooms

April 2018 to June 2018



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Executive Summary

Overview

Cardiovascular operating room (CVOR) nursing recruitment, training, and retention practices are not well understood. Six telephone interviews were conducted with CVOR nursing leaders from freestanding pediatric hospitals in the United States over a period of two months. One to three CVOR nurse leaders were present for each telephone interview. Three domains emerged from the qualitative data collected: recruitment and hiring, training, and retention and staff satisfaction.

Key Findings

1. A number of similar practices and unique strategies were employed across the six programs in recruiting, training, and retaining pediatric CVOR nurses (Tables 1, 3-4).
2. Most centers prefer pediatric CVOR experience; however, often hire nurses without this experience due to recruitment challenges (Table 2).
3. Training programs were typically individualized based on experience of nurse, with a focus on the role of circulator versus scrub (Table 3).
4. Given the specialty of pediatric CVOR nursing, the majority of programs identified the value of a pediatric CVOR-based clinical educator (Table 3).
5. Competency assessments and progress reports for the newly hired CVOR nurse occurred frequently, often during weekly evaluations (Table 3).
6. Retention strategies varied with a focus on good communication, maintaining a healthy work environment, and mentorship (Table 4). However, retention strategies were not consistently evaluated for effectiveness.

Suggestions for Improvement

1. Recruit and train according to desired experience and education level.
2. Understand that the “unicorn” is an unlikely candidate and the CVOR may have to “grow their own” staff.
3. Approach orientation using a standardized method but adapt the standardized orientation to the new nurses’ experience level, education level, and other learning needs.
4. Have a dedicated pediatric CVOR educator with pediatric CVOR experience.
5. Use of a formal or informal mentorship program.
6. Support the sub-specialty nurse throughout and after orientation with frequent debriefings with preceptors, mentors, educators, and management.
7. Assess the work environment with surveys and tools and share results with nursing staff. The results should have an action plan to make necessary changes to support the nurse.

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Methods

Project Design: A qualitative exploratory inquiry.

Time Period: Interviews were conducted between April 2018 and June 2018. The interviews were conducted at various times to enable site participation.

Inclusion Criteria: CVOR nursing leadership in freestanding pediatric hospitals participating in the Consortium of Congenital Cardiac Care – Measurement of Nursing Practice (C4-MNP) who agreed to be interviewed.

Validity of Findings: The Project Lead (PL), Director of Nursing Research, and Quality Improvement Consultant (QIC) conducted a member checking call with participating centers to ensure the interpretation of the findings and allow further discussion.

Data Collection: PL established email contact with C4-MNP affiliated CVOR nursing leadership. The email described the interview purpose and provided the interview questions. Six centers agreed to participate. Interviews were conducted over the phone. Following each interview, the PL and QIC added field notes to support interpretation. Data was organized into a qualitative matrix with the interview notes categorized by date and interview question. The data matrix was reviewed by the project team to identify similarities, themes, and unique methods for recruitment, training, and retention of CVOR nurses.

Interview Questions:

A. Recruitment:

1. What is the recruitment method for nurses and Surgical Technologists?
2. What is the overall nursing experience needed to work in your OR?
3. What is the OR-specific nursing experience needed to work in your OR?
4. What is the nursing education needed to work in your OR?
5. Does the nurse or Surgical Technologist need to have a professional certification?

B. Training:

6. Who assigns the preceptor? How are they selected?
7. When do you prioritize orientation to the Circulator and Scrub role?
8. How many preceptors are assigned to each orientee?
9. What is the expected length of orientation?
10. How do you track the progress of the orientee during orientation?
11. How often is the progress of the orientation evaluated with the orientee?

12. How do you support the new nurse after orientation?

C. Retention:

13. How do you assess staff satisfaction?

14. Is there any tool for feedback from staff to leadership for staff satisfaction?

15. How do you respond to staff feedback and concerns?

D. Other

16. Is there anything that has been overlooked with this line of questioning?

Findings

A number of similar practices and unique strategies were employed across the six programs in recruiting, training, and retaining pediatric CVOR nurses (Tables 1-4). Most centers prefer pediatric CVOR experience; however, often hire nurses without this experience due to recruitment challenges (Table 2). Training programs were typically individualized based on experience of the nurse with a focus on the role of circulator versus scrub (Table 3). Given the specialty of pediatric CVOR nursing, the majority of programs identified the value of a pediatric CVOR-based clinical educator (Table 3). Competency assessments and progress reports for the newly hired CVOR nurse occurred frequently, often during weekly evaluations (Table 3). Retention strategies varied with a focus on good communication, maintaining a healthy work environment, and mentorship (Table 4). However, retention strategies were not consistently evaluated for effectiveness.

Table 1. Recruitment methods

Similarities/Themes	Unique Methods
<ul style="list-style-type: none"> • Collaboration w/ HR and nursing leadership • Social media platforms • CVOR team recruitment • Independent recruiters 	<ul style="list-style-type: none"> • Local school information sessions • Advertisements in magazines and newspapers • Incentives offered

Table 2. Hiring preferences

Experience Level		
Registered Nurse (RN)		Surgical Technologist (ST)
In order of preference:	Requires Peri-op 101 training:	2 years of experience preferred
1. Pediatric CVOR	5. Pediatric CICU	In order of preference:
2. CVOR	6. CICU	1. Pediatric CVOR
3. Pediatric OR	7. Pediatric ICU	2. CVOR
4. OR	8. ICU	3. Pediatric OR
	9. Floor nurse	4. OR
	10. New Grad	
Education		Certification
In order of preference:		Certified Surgical Technologist (CST)
1. Bachelor of Science in Nursing (BSN)		• Required for hire and reimbursed
2. Associate Degree in Nursing (ADN) with intention to earn BSN		Certified Nurse Operating Room (CNOR)
3. ADN with experience		• Encouraged and reimbursed
		• Not required

Table 3. Training methods

Similarities/Themes	Unique Methods
Preceptors	
<ul style="list-style-type: none"> • Match personalities of preceptor, trainee • Use most seasoned/experienced RN • Leadership chooses preceptor • Learn from many 	<ul style="list-style-type: none"> • Preceptor program • Use more staff as preceptors at end of training • Educator is primary preceptor
Circulator and Scrub Training	
<ul style="list-style-type: none"> • Circulate before scrub • Few nurses scrub • No formal nurse scrub 	<ul style="list-style-type: none"> • Scrub after competent at circulate & resource • Need Surgical Technologist (ST) experience • Union does not allow nurse to scrub
Length of Circulator Training	
<ul style="list-style-type: none"> • Based on case complexity and trainee • Lengthy orientation of 2-8 months • Circulator and Resource role orientation 	<ul style="list-style-type: none"> • Peri-op 101 if no OR experience • 2 weeks orientation to unit with no training • Phased orientation by case progression • Orient through all services in OR
Training Evaluation	
<ul style="list-style-type: none"> • No similarities 	<ul style="list-style-type: none"> • Individualized evaluation meetings • CVOR competency based tool • Educator, manager, preceptor evaluate weekly • Expectations set for preceptor and trainee • Daily/Weekly preceptor meetings • Competency based tools • Sign off skill sheet • Narrative with case log
New Hire Support After Training	
<ul style="list-style-type: none"> • Charge nurse • Stronger staff • Preceptor continues as a mentor • All staff support each other • Manager supports newer staff • Strong scrub with new staff • Case complexity regulation • Buddy call with support 	<ul style="list-style-type: none"> • No unique methods

Table 4. Retention strategies

All Unique Methods:	
Staff Satisfaction Assessment	
<ul style="list-style-type: none"> • Quarterly pulse checks • Meaningful recognition • Healthy work environment • Staff are vocal about satisfaction • Monthly meetings with team 	<ul style="list-style-type: none"> • Hospital-wide satisfaction survey • Yearly staff meetings • Meetings with preceptor • Journal club • Employee satisfaction survey
Response to Feedback and Concerns	
<ul style="list-style-type: none"> • Validated burn-out tool • Setting and managing expectations • Assess individual needs • Conversations about wants and needs 	<ul style="list-style-type: none"> • Escalate concerns as needed • Address and make changes • Offer and give support

Conclusions

Domains: Two domains in each category of questioning emerged from the data collected.

- Recruiting domains: “The Unicorn” and “Grow Your Own”
- Training domains: Orientation Time and Role of the Nurse
- Retention domains: Mentoring and Healthy Work Environment

“The Unicorn”

The perfect nursing candidates for the pediatric CVOR have both pediatric CVOR experience and a BSN or higher degree in nursing. These candidates were referred to as “the unicorn,” because these candidates are hard to find. We then look for candidates from adult CVORs, pediatric ORs, and even general ORs. Refer to Table 2 for the hierarchy of preferred CVOR nurse experience and education.

The candidate pool is limited and the age demographic of the OR is increasing, leaving few people with experience to apply for positions in the pediatric CVOR. The education level preferred for hire is the BSN, but centers will accept the experienced ADN nurse. The nurse with ADN is often hired with the caveat that they need to earn a BSN in the future. Certification is also preferred in the nurse’s area of practice but can be earned after hire.

“Grow Your Own”

Given the lack of “unicorn” candidates for the pediatric CVOR, there is a need to move down the hierarchy of preferred CVOR nurse experience and education. This is where the discussion shifted to the new OR nurse, including the newly licensed nurse. These candidates for hire are often over-looked because of their lack of experience. However, there are some centers that prefer these candidates, as well as new surgical technologists, so they can “grow their own.” While there is much training that these candidates require, there is no need to un-train potential bad habits. They know only what you teach them and what they learned in school.

Orientation Time and Role of the Nurse

The orientation time varied between two weeks and eight months to the circulator role only. The amount of time is determined by the nurse’s prior experience. Some centers only hire nurses with pediatric CVOR experience, and take just two weeks to “orient but not train” staff, while other centers take the time to train and orient new nurses up to eight months for those with little or no pediatric CVOR experience.

One center was unable to train nurses to the scrub role due to union requirements. Other centers were unable to train nurses without scrub experience to the scrub role due to lack of time for training and acuity of cases. The scrub orientation had an average time of three months, not including circulator orientation. Including both scrub and circulator orientation increases the total orientation time for pediatric CVOR cases to almost one year.

Mentoring and Healthy Work Environment

Most sites expressed that they either had or would benefit from a mentoring program. The mentoring program could be formal or informal to support new staff. Each site acknowledged the importance of considering differences in personalities, and the need to match up nurses who would work well together. Most sites indicated a need for support after orientation.

Most sites acknowledged the impact the work environment has on nurses. Sites identified that mechanisms for nurses to voice their needs and concerns are essential to maintaining a healthy work environment. Many sites had their own mechanisms in place including staff satisfaction surveys and other tools; however sites agreed that follow-up is integral after implementation. Results must be discussed and an action plan for change should be developed. Sites expressed that this directly affects the satisfaction of nurses which is related to retention and has an impact on recruitment of new nurses.

Other Key Discussion Points

Some sites utilized a multidisciplinary interview team during the hiring process. This could have a positive impact on recruitment, training, and retaining new staff to the pediatric CVOR. Engaging the other disciplines may decrease the “stranger danger” perception of the new hire and improve the communication of expectations and responsibilities. Specifically, sites found that involving surgeons and anesthesiologists early in the nurse hiring process helped promote the potential for increased teaching within the different disciplines in the pediatric CVOR.

Limitations

This exploration allows us to describe only the CVOR nurse recruiting, training, and retaining experiences of cardiac centers in the United States participating in the C4-MNP, and therefore cannot be considered generalizable to the experiences of all pediatric CVORs.

Suggestions for Improvement

We identified the following suggestions based on interview comments to help improve recruiting, training, and retaining within the pediatric CVOR.

1. Recruit and train according to desired experience and education level.
2. Understand that “the unicorn” is an unlikely candidate and the CVOR may have to “grow their own” staff.
3. Approach orientation using a standardized method but adapt the standardized orientation to the new nurses experience level, education level, and other learning needs.
4. Have a dedicated pediatric CVOR educator with pediatric CVOR experience.
5. Use of a formal or informal mentorship program.
6. Support the sub-specialty nurse throughout and after orientation with frequent debriefings with preceptors, mentors, educators, and management.
7. Assess the work environment with surveys and tools and share results with nursing staff. Identified opportunities for improvement should have a formal action plan to make necessary changes to support the nurse.