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COVID-19: Impact for Pediatric Research, Evidence-Based Practice and Quality Processes and Projects

Karen S. Gralton, PhD, RN, PCNS-BC*, Nancy Korom, MSN, RN, NEA-BC, FAAN, Karen Kavanaugh, PhD, RN, FAAN, Stacy Wenner, MSN, RN, NEA-BC, Kathleen Norr, PhD

Children's Wisconsin, Department of Nursing Research and Evidence-Based Practice, WI, USA

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ABSTRACT

Pediatric hospitals have not experienced the increase in patient volumes or received the same media attention as adult hospitals. Yet, the impact has been equally and significantly palpable. The Department of Nursing Research and EBP continues to be available for consultation and mentoring of staff, as staff use current evidence to drive continued practice changes and consider new projects. Alternative processes for research methods will enable the continuation of important nursing research.

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Introduction

The current incidence of COVID-19 in the US has reached 2,104,846. While the majority of cases has not been in children aged 0–17 years (87,806), the impact has been witnessed in pediatric clinical settings (Center for Disease Control & Prevention (n.d.) <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>). Pediatric hospitals have not experienced the increase in patient volumes or received the same media attention as adult hospitals. Yet, the impact has been equally and significantly palpable. When we recently asked our clinical nurse specialist colleagues at Children's Wisconsin, "What has been the impact of COVID-19 and what have been the changes you have experienced since the pandemic?", they responded with silence until one lone voice replied, "Everything has changed". Major disruption to the activities within pediatric hospitals are occurring within operations, practice, EBP, quality projects, and research. As a four-time Magnet® designated organization, key aspects of the Magnet Model components are exemplified in the response.

Transformational Leadership & Structural Empowerment.

Similar to other pediatric health care organizations, Children's Wisconsin limited surgeries, outpatient visits, and services to only essential health care needed to reduce the spread of COVID-19. This impacted patient placement with closure of units as census declined. Units with negative pressure capabilities were designated in both acute and critical care units for patients with a suspected or confirmed diagnosis. A plan to care for patients who were confirmed positive for COVID-19 was

implemented. Staffing patterns were altered as units, outpatient facilities, and clinics were closed. Screening prior to entry into the work place was implemented, and isolation practices were modified to keep patients, families, and staff safe, and minimize the potential for spreading the virus. Increasing the opportunity for telehealth visits, as well as targeted marketing for families to address their concerns, assured families that safe health care was accessible.

Response to the pandemic involved addressing other system issues. Our Command Center was opened early in the pandemic as leadership presence 24/7 was essential. The "COVID-19 Hotline" and command center communications became the source of consistency in all communications. Weekly leadership briefing sessions were held and made available. Additionally, leaders conducted rounds on the units, providing transparency with a calm and collaborative approach. To promote safety for all, personnel whose work did not require them to be on site worked from home, while awaiting an invitation to return to work.

Exemplary Professional Practice: New Knowledge, Innovations & Improvements.

Not surprisingly, clinical practice changes occurred as a result of system and operational modifications. Workflow processes in all areas were adjusted due to the need for COVID-19 screening, testing, physical distancing and wearing PPE. For the pediatric nurse, the face is an expressive means of communication to engage with the child, and the face mask challenged our developmental approach. Consultations are facilitated with iPads. Education with families require more time to assess learning needs and comprehension to safely care for their child at home. Nurses provide information on newly developed resources to help families understand the impact of COVID-19.

Floating to different inpatient units and caring for unfamiliar patients created anxiety for some nurses, regardless of years of experience. Clinical Nurse Specialists (CNS) and Clinical Educators conduct rounds

* Corresponding author.

E-mail addresses: kgralton@chw.org (K.S. Gralton), nkorom@chw.org (N. Korom), kkavanaugh@chw.org (K. Kavanaugh), swenner@chw.org (S. Wenner), knorr@chw.org (K. Norr).

regularly on all shifts to offer support to staff nurses with their clinical assessments, procedures and critical thinking. Additionally, the CNSs serve as liaison for other departments with employees who are working from home, e.g. social work and child life. CNS leadership is immeasurable in the delivery of quality care, as well as support for operations during this unprecedented time.

Evidence-based practice (EBP) classes and brown bag sessions are cancelled due to “safe at home” physical distancing requirements and a lack of funding for non-direct patient care activities. EBP and quality projects are paused. Nevertheless, the Department of Nursing Research and EBP continues to be available for consultation and mentoring of staff, as staff use current evidence to drive continued practice changes and consider new projects. Additionally, learning to develop ePosters and present a project virtually has become a priority.

Challenges to conducting clinical research during the COVID-19 pandemic were addressed. Research leadership limited clinical research to protect research participants and research personnel during the COVID-19 pandemic, while allowing necessary research to continue. Each ongoing clinical research study was placed into one of three categories, which was based on risk and benefit to the subjects. Only that category of studies for which halting research activities would cause immediate and life threatening risk to participants was allowed to continue with in person contact. For these continuing studies, measures were taken to implement IRB approved changes that minimized contact and risk. Investigator guidelines were approved for alternative methods to obtain and document assent/consent and collecting data. Re-activation of the other categories of clinical research is occurring through a centralized, coordinated effort. As part of the reactivation plan, investigators are required to develop a specific plan, which outlines strategies for managing ongoing or potential restrictions due to the COVID-19 pandemic.

The restrictions brought on by the COVID-19 pandemic have provided an opportunity to explore alternative and possibly more feasible and efficient ways to conduct clinical research. Use of the Internet and software platforms have become a reality for obtaining informed consent via screen time and collecting data, such as interview and survey data. Alternatives to a face-to-face approach include using a Zoom platform that is HIPAA compliant and IRB approved. This type of platform is a viable option, when some form of interaction with participants is preferred. Otherwise, a web based platform, such as REDCap, can be used for direct input data collection for use with surveys. For both

alternatives, iPads have been successfully used on clinical units as a tool to collect this data. Our investigators found these approaches to be successful even with very sensitive research. Research that was not paused included protocols where iPads were already in use, the protocol was nearing conclusion and consents and interventions could be conducted without face to face meetings or contacts (e.g. cell phones and web based materials).

Despite these changes, we found that the COVID-19 pandemic also presents investigators with a unique opportunity for the conduct of nursing research. For example, our recently funded study implementing a parent administered early behavioral intervention (H=HOPE) as the standard of care for premature infants offers an opportunity to examine impacts of COVID-19 related modifications. As our team prepares to begin the study, we are increasingly aware of the multiple impacts that the COVID-19 pandemic will have on the NICU environment and on our implementation research. We are especially concerned that the increased use of masks during infant care and reduction of parent visits may reduce the effectiveness of the intervention we plan to implement. We also plan to investigate the impact of the response to the COVID-19 pandemic on the degree of willingness to introduce a new evidence-based practice in an acute-care unit with highly vulnerable patients, specifically NICUs. There will be periodic resurgences of the virus, and restrictions will be relaxed and re-introduced differently in NICUs overtime. Most NICUs and the overall hospital and health system have already faced an enormous challenge in rethinking how to deliver care safely in a pandemic. Our 5-year research will offer a unique opportunity to study the impact of these changes on intervention effectiveness and willingness to implement H-HOPE and other evidenced based interventions.

The one certainty is that the future is uncertain for nursing research, EBP and quality projects. It is a tremendous opportunity to learn, build and innovate. And yet, our efforts to achieve the best and safest outcomes for our patients and families reflect the creativity and resilience of our nursing profession at Children's Wisconsin.

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