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Improving Nurses' Knowledge on the Assessment and Documentation Practices in the Pediatric Settings of a Jamaican Hospital

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Walden University

College of Nursing

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Binol Balachandar

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University

2022

Abstract

Improving Nurses' Knowledge on the Assessment and Documentation Practice in the
Pediatric Settings of a Jamaican Hospital

by

Binol Balachandar

Walden University

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

February 2022

Abstract

Anecdotal reports from the on-site Quality Assurance team, administrators, and educators indicate a theory-practice gap in pediatric nursing practice settings relating to the specific assessment and documentation. A deidentified chart review confirmed the reported theory-practice gaps in 80% of the patient records. Hence, this staff education project and the educational intervention on assessment and documentation practices in the pediatric setting were implemented in collaboration with the in-service unit. Subsequently, knowledge improvement were appraised using a pre and posteducation survey. Mozirow's reflective learning theory formed the basis for staff education, utilizing adult learning principles. Twenty-five consenting nurses completed the preeducation survey ($N = 25$); however, only 17 (68%) completed the education and postsurvey. The survey's key findings show that most nurses (76%) had between 0-5 years of pediatric experience, and 68% had not received any pediatric-specific continuing education. The paired t test values showed an increased knowledge score (mean difference of -7.353 with a \pm SD of 1.3835), and the improvement in knowledge was statistically significant (t -value -16.520; df 16, and the $p < 0.005$). Nurses and managers can effect a positive social change by using these educational resources to improve staff knowledge and skills on pediatric assessment and documentation and thus promote child development and better health outcome for children seeking healthcare.

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Dedication

I dedicate this project to my family and many friends who never left my side and were the driving force in achieving my goal. My parents, who are in their heavenly adobe, taught me unselfish love and the value of hard work, and I dedicate this project to you both. I express my special gratitude towards my loving husband Rajesh, adorable children Tarun and Riya for their patience, sacrifices, and immense support. My in-laws Balachandran and Jayalakshmi, brother-in-law Bipin, and my seven siblings deserve a special mention for your words of encouragement, push for tenacity, and relentless cheerleading. I also dedicate this project to all my friends, who have stood by me as a colossal pillar and supported me throughout my studies.

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Section 1: Nature of the Project

Introduction

Globally, the nursing community considers comprehensive assessment, accurate documentation, and relevant and timely patient education to be integral to safe and effective patient care. With children, individualized and age-specific nursing assessment and prudent documentation are even more critical due to children's innate vulnerability to injury, complications, and sudden change in clinical state (Royal Children's Hospital Melbourne, 2019; World Health Organization, 2002). Therefore, I explored on-site assessment and documentation practices during my clinical practicum, keeping this tenet in mind.

The project site hospital's quality assurance (QA) officer testified that the assessment and documentation issues were a major concern and were widely reported across the practicum setting, including the pediatric units (Personal communication, October 24, 2020). However, the various departments operating within the hospital, such as the in-service education unit, could not address the inadequacies in the assessment and documentation practices due to their resource limitations and overwhelming priorities. Therefore, the practicum site would benefit from staff education projects addressing assessment and documentation issues in the pediatric settings, particularly in the absence of a qualified pediatric in-service educator (In-service education director, personal communication, October 20, 2020).

Whereas an effective nursing care plan and interdisciplinary management of children depends on nurses' impeccable assessment and accurate documentation, the

nurses should be equipped to perform prudent assessments and judicious documentation to develop flawless care plans and evidence-based care delivery approaches/models (Amaro et al., 2010; Institute of Pediatric Nursing, 2010; Smith, 2018; American Academy of Pediatrics, 2021b). Also, considering the physiological differences, growth and development-specific and condition-specific assessment principles, and refreshing the comprehensive assessment enables early identification of complications and abnormalities in children (Institute of Pediatric Nursing, 2010; Ramgopal et al., 2018; Smith 2018). Such timely and early identification of complications and developmental issues has been recognized as a critical step for improving care delivery, developing preventive strategies, and planning educational interventions for children and their families (Institute of Pediatric Nursing, 2010).

Consequently, an improved standard of care and patient education would prevent complications, reduce the length of hospital stays, leading to fewer readmissions, and result in fewer permanent disabilities or even untimely deaths of children (Institute of Pediatric Nursing, 2010; White et al., 2016; World Health Organization, 2002). Evidence-based translation of prioritized and comprehensive assessment and documentation practices may form the basis for effective coordination of care and improve the scope of patient education efforts, ultimately resulting in excellence in patient care (Christian, 2012; Verschoor et al., 2007).

This educational project was expected to foster nurses' clinical decision-making, reasoning skills, timely evaluation of care, and continued professional growth (see Christian, 2012). This project can also transform nurses and the managers into change

agents and advocates within the units and their future practice arenas by improving the standard of care planning through the use of evidence-based information and multidisciplinary collaboration (American Association of Colleges of Nursing, 2006; Walden University, 2020). Targeted staff education may also motivate nurses to further their education in the pediatric specialty, a much-needed aspect to build on in the current institutional quality control quest.

According to the QA officer at the project site, staff education and training are needed throughout Jamaica, including this practicum setting, due to the dearth of qualified pediatric nurse educators. Therefore, I hope that nurses' migration from one department/part of the island to another also influences nurses' assessment and documentation practices in other practice sites, improving the children's health and well-being across the island and bringing about the positive social and economic development of the country. The project site organizations' leadership were keen on promoting further knowledge dissemination as a crucial quality improvement initiative for care delivery, job satisfaction, employee retention, and patient satisfaction. Therefore, I am confident that this practical and viable project effected positive social changes in the workplace, society, and the healthcare settings that is beneficial to all stakeholders and may prove significant in improving standards and quality of care, improved health, and social outcomes.

The following section outlines the problem statement, the projects' purpose, and its significance to the children and their families, the practice setting, the profession, and the organization.

Problem Statement

It is well accepted that there are differences in the assessment and categories of data collected from children and families by virtue of age-specific growth and developmental characteristics and the physiological, psychosocial, and cognitive differences (World Health Organization, 2002). These identified differences clearly indicate that assessment and documentation variance exists in pediatric practice settings (Ramgopal et al., 2018; World Health Organization, 2002). A brief review of the nurses' shift notes, admission and discharge notes, and direct observation of the end of shift report revealed inadequacies in assessing and documenting the growth and development-specific and condition-specific assessment. On the further assessment of deidentified chart reviews in the pediatric units on site, 80% of the nurses' assessment and documentation lacked case-specific, age-specific, development-specific assessment and documentation. The child and family educational needs are seldom assessed or documented. Occasionally, patient education was conducted and documented; however, it is not specific or targeted to cater to children's and families' individualized needs.

Hence, there was a need to fill the theory and practice gap and improve patient outcomes through timely and relevant staff educational interventions, supporting the institutions' current quality improvement initiatives. Following this staff education projects' execution, participant nurses were prepared to perform prudent assessments and judicious documentation to develop flawless care plans and evidence-based care delivery models and to identify patient and family education needs (American Academy of Pediatrics, 2021b; Smith, 2018). This educational project also fostered nurses' clinical

decision-making, reasoning skills, evaluation of care, and continued professional growth. This project can transform nurses and managers into change agents and advocates within the units and their future practice arenas by improving the standard of care planning through multidisciplinary collaboration (American Association of Colleges of Nursing, 2006; White et al., 2016). In addition, this project's educational materials can guide the development of assessment and documentation templates in the future when implementing electronic medical records on-site or within the public health system (American Association of Colleges of Nursing., 2006; Smith, 2018; White et al., 2016).

The project may also guide pediatric nurses' curriculum development, course delivery, and clinical skill development, including orientation programs and in-service education. Thus, this educational project is expected to improve the standard of care and deliver better healthcare outcomes by quality assessment, documentation, and patient and family education practices in the selected healthcare organization (Shaw et al., 2006; White et al., 2016).

Purpose Statement

Nurses' knowledge of pediatric-specific assessment, documentation, and patient education is imperative in improving the quality of care. Hence, the primary purpose of this project was to improve pediatric-specific assessment and documentation practices in the selected pediatric settings, thereby improving the patient education efforts, quality of care, and better healthcare outcome.

The educational intervention materials developed for this project guide the nurses in their assessments and documentation on-site, and the in-service unit has adopted this

material as an educational tool for their orientation sessions. Consequently, the educational sessions and resources help standardize pediatric units' assessment and documentation practices. Also, the Jamaican Public Health system is on the way to implementing electronic medical records, and this educational resource aids managers in developing assessment and documentation templates in pediatric practice.

The practice-focused question that was answered, which reflected this project's purpose, is as follows,

PFQ: Is there an improvement in nurses' knowledge about the assessment and documentation practices in the pediatric settings after implementing an educational intervention/teaching plan when appraised using a pre and postquestionnaire?

The improved knowledge through transformative learning can act as a catalyst for change to enhance healthcare quality through reflective practice (Eschenbacher, 2020; Schnitzler, 2020; Sherman, 2021; White et al., 2016).

Nature of the Doctoral Project

Enhancing nurses' knowledge through specialty education is crucial in improving care delivery and healthcare outcomes in any specialized setting, such as pediatrics. The managers, administrators, and I identified a theory-practice gap concerning nurses' assessment and documentation practices in this specialty setting. Therefore, there was a need to fill the theory and practice gap and improve patient outcomes through timely and relevant staff educational interventions, supporting the institution's current quality improvement initiatives. Consequently, empowering nurses with pediatric-specific assessment and documentation helped serve this project's goal and meet the

organization's quality improvement mission (Chaghari et al., 2017; Hodges & Videto, 2011).

This project's primary purpose was to improve pediatric-specific assessment and documentation practices within the selected pediatric settings, thereby improving the patient education efforts and quality of care, resulting in better healthcare outcomes. I am confident that this project was beneficial, practical, and viable at the project site to support the quality control initiatives and improve healthcare outcomes, nurses' job satisfaction, and professional development. The educational resources will guide the clinicians in pediatric settings in their assessment and documentation and are integrated into the educational materials by nurse educators for their orientation training in the pediatric settings.

I searched several databases and websites for developing the project plan, pre and postsurvey, and educational materials. I searched databases such as ProQuest, EBSCOhost, CINAHL, MEDLINE, and Science Direct, using the key terms *assessment and documentation in pediatric practice, pediatric assessment and documentation, quality improvement in pediatric documentation, documentation in pediatric practice, pediatric-specific assessment, safety, and quality in pediatric practice*, which provided robust pieces of evidence on the search topics to develop the project. The same key terms were also used to obtain further information to complete this project report.

I reviewed resources from the American Academy of Pediatrics, Institute of Pediatric Nursing, and American Academy of Family Physicians to obtain specialty data for the educational materials. These websites provided rubrics and outlines for

developing the project plan and evidence-based best practice information for implementation. In addition to the web resources, institution and country-specific best practices in assessment and documentation obtained from the staff development unit and nursing administration were integrated into the project development.

This project's fundamental theoretical concepts were centered around the reflective learning theory for adult education posited by Mezirow (1998; Mukhalalati & Taylor, 2019). According to the theorist, Mezirow (1998), learning happens when new information is integrated into the existing knowledge base while the learners maintain their initial frame of reference. However, the learner continues to change their perspectives through reflection, critical evaluation, action, and transformation (Mukhalalati & Taylor, 2019). Nurses were equipped with evidence-based knowledge and pediatric-specific assessment and documentation perspectives through this educational intervention. Such improvement in knowledge provided critical thinking opportunities, permitting questioning their old practices for practice reform. Finally, the nurses act on the new perspectives gained and strive for better assessment and documentation practices in their practice settings.

The educational materials and the survey tools were vetted by the clinical specialist, nursing managers, and the in-service education unit. The implementation logistics were worked out in full cooperation and collaboration with these units. The educational intervention was implemented as an in-service education program. Pre and postimplementation data were collected using an online survey, and the changes/improvements in knowledge scores were analyzed using a paired *t* test (British

Medical Journal, 2020). The in-service units provided deidentified participant data. The in-service education unit, nursing administration, and I managed the information collected. Pre and postknowledge scores and demographic information could be used as background data in future quality improvement/follow-up projects.

Significance

This project appraised nurses' knowledge level and the gaps between theory and practice or inadequacies in the assessment and documentation practices in pediatric settings. Thus, this educational project catered to the learning needs of the nurses working in the pediatric units and may positively influence their assessment and documentation practices. The nurses' educational needs justify the educational interventions for inculcating best practices in the practice settings, as supported by the American Association of Colleges of Nursing (2006).

As envisioned by Walden University (2020), as a scholar-practitioner, I used this project to engage nurses and managers in better collaborative partnerships and sustainable change in nursing assessment, documentation, and patient education efforts. These partnerships must empower nurses and managers to elevate care standards, leading to a healthier generation of children for society. This project may also activate further quality improvement projects or research ideas for future positive institutional and social change (Walden University, Center for Social Change, 2020).

This project supported the institutional mission of teaching, research, and improved patient care (Jamaica Information Service, 2020), which informed the pediatric

units in formulating policies and protocols that guide pediatric nursing assessment and documentation practices.

The project guides pediatric nurses' curriculum development, course delivery, and clinical skill development, including orientation programs and in-service education. In addition, this project's educational materials can direct the development of assessment and documentation templates in the future when implementing electronic medical records on-site or in the public health system (American Association of Colleges of Nursing, 2006; Smith, 2018; White et al., 2016).

Inadequate assessment and documentation can complicate the management of children and families' health and increase healthcare spending by the family, institution, and country (Drennan, 2011). Poor healthcare management affects the long-term health status of the children and their families, leading to increased stress, and economic burden on the family may impact family productivity and social well-being. This project provided insight into the necessary practice changes to improve the quality of assessment, documentation, and patient/family education in pediatric practice. Joshi et al. (2014) emphasized that improved healthcare outcomes are reflected in decreased healthcare spending, reduced duration of hospital stay, lower readmission rates, and fewer complications.

The definitive expected result of this project was improving quality of care, reducing healthcare costs, improving clinicians' and stakeholders' satisfaction, and creating a better healthcare milieu for children and the healthcare workforce (Alasoini, 2004; American Association of Colleges of Nursing, 2006; Drennan, 2011; Kettner et al.,

2017; Pelayo et al., 2011; White et al., 2016). Thus, executing this project helped the unit and organization achieve their goals of high-quality healthcare with better care coordination, a smoother transition of care, and improved patient and family's functional status and productivity (Joshi et al., 2014). Ultimately, better healthcare outcomes foster trust in patient-clinician-organization relationships, increasing institutional credibility (Kettner et al., 2017).

Summary

This section lays emphasis on the importance of the staff education project in refining nurses' assessment and documentation practices in pediatric settings. It is pertinent, timely, and significant for improving care quality and achieving better patient outcomes for the children and families.

Section 2 discusses the project's background and context, providing key information on the concepts, theories, and models used in planning and implementing this educational intervention. Understanding and integrating a staff education project's theoretical foundation is crucial to planning and implementing a customized, context-specific program (see Jeffery et al., 2015; Kettner et al., 2017).

Section 2: Background and Context

Introduction

After dealing with the nature and the project need, the following section expands on the local background, context, and theoretical underpinning. I also detail my role and that of the project team and the project's relevance to nursing practice.

Through this project, I examined whether there would be an improvement in nurses' knowledge about the assessment and documentation practices after implementing an educational intervention/teaching plan appraised using a pre and postquestionnaire. The organization identified the problem as one that interfered with providing quality care. This project's primary purpose was to improve nurses' pediatric-specific assessment and documentation practices, thereby improving the quality of care and patient outcomes. The students' educational resources guide the clinicians in their assessment and documentation or are used as an educational instrument by nurse educators/as a training tool in pediatric settings.

Concepts, Models, and Theories

This project's fundamental concepts were centered around the concepts of the adult as a learner (empowering education) and project management (see Chaghari et al., 2017; Glickman et al., 2007; Twaddell, 2019; White et al., 2016). Integration of these concepts was crucial for successfully planning, implementing, and evaluating the project while ensuring communication and collaboration between stakeholders (see Jeffery et al., 2015; Walden University, 2019; White et al., 2016). It is clear that adults learn when they need to learn and are motivated to learn (Mukhalalati & Taylor, 2019; Twaddell, 2019).

Therefore, I communicated the importance of this educational intervention and the advantages of partaking in the teaching-learning process to the nurses and the institution. In conjunction with the in-service education unit and nursing administration, the educational plan was relayed to the nurses to assure cooperation and participation better, improving the efficacy of the training (see Chaghari et al., 2017; Glickman et al., 2007; Jeffery et al., 2015; Twaddell, 2019; White et al., 2016).

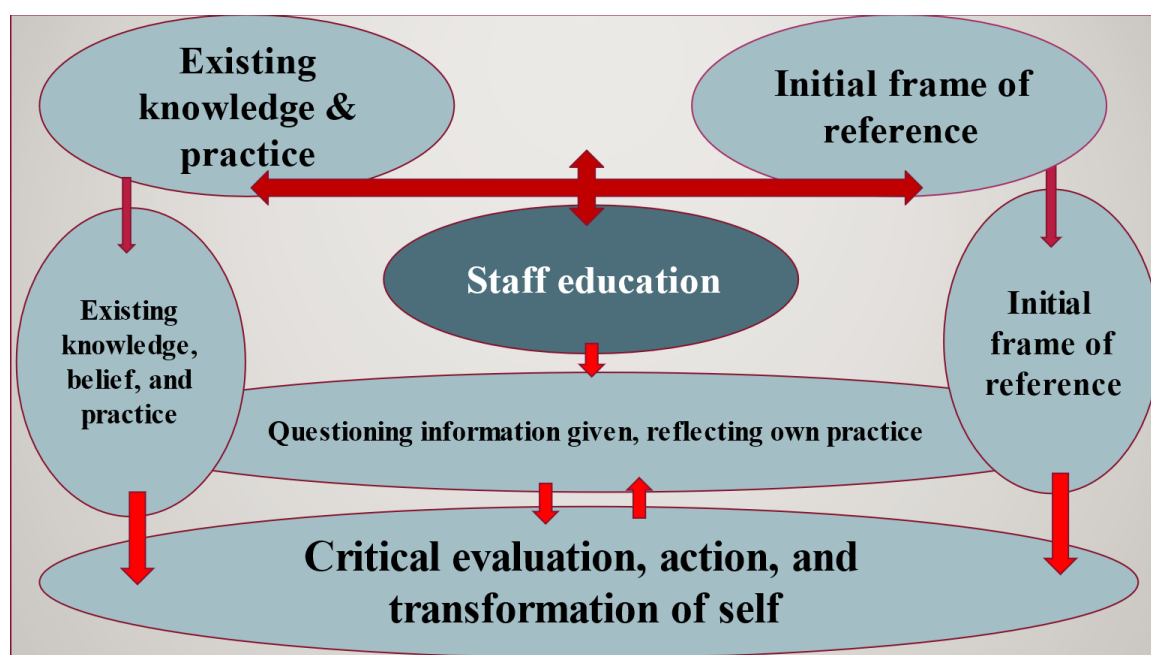
The identified theory was the transformative learning theory (reflective learning) for adult learning by Mezirow (1998; Mukhalalati & Taylor, 2019) to assimilate the above-recognized concepts in this staff education project. According to the theorist, Mezirow (1998), learning happens when new information is integrated into the existing knowledge base while the learners maintain their initial frame of reference. However, adult learners continue to change their perspectives through reflection, critical evaluation, action, and transformation (Mukhalalati & Taylor, 2019). Thus, this newly gained information could be incorporated into the current knowledge base and change the practice perspectives through critical evaluation and reflection, transforming the assessment, documentation, and patient/family education practices.

Taylor (1997) claimed that Mezirow's theory provides critical thinking opportunities by introducing new ideas, critically questioning practices and beliefs, and inspiring those participating in the educational intervention. Schnitzler (2020), in a systematic review, concluded that the theory provides collaborative and social learning opportunities and builds team spirit while facilitating personal transformation. Mezirow (1998) reinforced the importance of support to learners incorporating different learning

strategies in various adult learning phases. As a project manager and educator, consideration of these phases was vital in developing a program to help nurses gain insight into their prior knowledge, ideas, and practices and transform them into adopting a new course of action while integrating new knowledge (see Mezirow, 1998; Western Governors University, 2020).

Figure 1

Representation of the Theoretical Framework (Mezirow's reflective learning for Adults)



Eschenbacher (2020) and Sherman (2021) supported the abovementioned notions and asserted the importance of revamping current clinical practice through fostering critical reflections among learners, in the case of this project, nurses, and bringing out awareness of deep-rooted, hidden assumptions. The authors further noted that selecting the right approach to teaching is key to effecting change. Transformative teaching allows for choosing an approach that challenges learners to question their practice and

assumptions to transform current practice. Learners are empowered to act on the new perspectives gained from the educational sessions and improve their practices.

Mezirow (1998) asserted that the learners pass through the following phases during their transformation (Christie et al., 2015). As applied in this project, those phases were as follows

- A disorienting dilemma occurred when the nurses identified that their prior knowledge might be inadequate or following an inaccurate practice. This revelation was considered a spark in igniting transformational learning.
- After identifying inadequacies in their knowledge and practice, nurses self-examined their practices, better understood assessment, documentation, and care planning, and filled the theory-practice gap.
- The next phase was a critical assessment of assumptions, where the nurses critically reviewed their previous practices and assumptions and were open to receiving new knowledge.
- After critically analyzing their actions and assumptions, nurses planned a course of action to facilitate a transformation, which filled the practice gap.
- In this phase, real learning took place. The nurses executed their transformational plan to improve practice. Knowledge was further improved, and new perspectives concerning their practice were gained.
- Nurses could now understand the transformation and changes in perspectives for successful action in clinical settings and experience the changes for themselves.

- Building confidence and self-efficacy in their roles in assessment, documentation, and patient education, the nurses continued the transformative cycle and moved forward in their profession (see Christie et al., 2015; Mezirow, 1998).

In addition, Mazirow's theory emphasized the importance of employing different teaching-learning strategies in adult education projects for effective reflective learning (Eschenbacher, 2020; Western Governors University, 2020). Therefore, I provided the nurses with the necessary resources to explore and gain new perspectives. Use of scenarios or deidentified clinical cases or role-play for assessment and documentation, self-directed learning exercises, journals for reflections, question-based learning, group discussion, and video demonstration were incorporated into the teaching plan (see Christie et al., 2015; Eschenbacher, 2020; Mezirow, 1998).

Relevance to Nursing Practice

Walden University expects Doctor of Nursing Practice students to become scholar-practitioners who could solve practice problems in various healthcare settings and improve healthcare outcomes (Walden University, 2020). In this transformation and professional journey, I was equipped with the knowledge and skills to find solutions to clinical problems of professional and institutional significance identified during the doctoral education period. One of the significant problems identified was inadequacies in nurses' assessment and documentation practices in pediatric units. I planned to improve the nurses' knowledge through educational intervention, and the improvement in knowledge was assessed using a pre and posteducation knowledge survey.

An effective nursing care plan and interdisciplinary management of children rely on nurses' impeccable assessment and accurate documentation (Amaro et al., 2010; Smith, 2018). However, the QA officer at the project site reported a theory-practice gap in practice protocols or policies guiding nurses' assessment and documentation practices in the pediatric setting. Efforts to address the gap were unsuccessful due to resource constraints and a lack of background support. A general assessment and documentation template was developed previously by the nursing administration that was widely used in the setting, including the pediatric units, for a short period. However, the same document was recently abandoned following widespread criticism for lacking specificity and pertinence (Personal communication, December 22, 2020). Recently, the organization appointed a QA officer to uplift care standards and ensure patient and clinician safety. However, support for the quality improvement initiatives were stalled due to other pressing priorities, especially during the pandemic.

In addition, the nursing practice templates such as care plans, admission records, nurses' notes, fluid and electrolyte balance charts, pain scales, conscious level chart, and so forth, were not pediatric-specific, and attempts made by a unit manager to incorporate the same in the pediatric nurses' daily practice were unsuccessful due to lack of continuous reinforcement and educational support (Personal communication, December 22, 2020). Although the unit's procedure and policy manual addressed some pediatric specialty considerations in assessment and documentation, those documents were underutilized by the nursing staff as reported by the nurse managers (Personal communication, December 22, 2020).

Therefore, through the execution of this staff education, the nurses were prepared to perform prudent assessments and judicious documentation to develop flawless care plans, evidence-based care delivery models, and identify patient/family education needs (Ramgopal et al., 2018; Smith, 2018; World Health Organization, 2002). Consequently, the doctoral students' educational sessions and the resources may help standardize the assessment and documentation practices on-site. The Jamaican Public Health system is also preparing to implement electronic medical records, and this educational resource will aid managers in developing assessment and documentation templates in pediatric practice.

This educational project also fostered nurses' clinical decision-making, reasoning skills, evaluation of care, and continued professional growth. This project can also transform nurses and the managers into change agents and advocates within the units and their future practice arenas by improving the standard of care planning through multidisciplinary collaboration (American Association of Colleges of Nursing, 2006 White et al., 2016). Additionally, refreshing the comprehensive assessment, considering the physical and physiological differences, the principles of growth and development, and condition-specific assessment will enable early identification of complications and abnormalities in children. Such timely identification of complications and developmental issues is well recognized as a critical step for improving care delivery to prevent complications, permanent disabilities, or even death (World Health Organization, 2002). It is expected that the targeted, comprehensive assessment and documentation will increase the quality and scope of patient education efforts by the clinicians through the

collaboration of care (Shaw et al., 2006). Thus, this project may fill the existing theory-practice gap.

Targeted staff education may also motivate nurses to further their education in the pediatric specialty, a much-needed aspect to build on in the current institutional quality control quest, especially in the absence of qualified pediatric staff educators (Kettner et al., 2017). Moreover, nurses' migration from one department/part of the island to another will also influence nurses' assessment and documentation practices in other practice areas, improving the health and wellbeing of the children in general. The organizations' leadership also can support further knowledge dissemination as a crucial quality improvement initiative to improve care delivery, job satisfaction, employee retention, and patient satisfaction (Jeffery et al., 2015; White et al., 2016).

After the project completion, the agencies across the island could adopt the staff education material to evaluate quality improvement initiatives in pediatric settings for continuous quality improvement and better patient outcome. This manual also could be revised to fit specific educational/care needs within various departments or the community for clinicians' use in the absence of such a document within the island. The online educational efforts could be continued by adopting the training of trainers (ToT) model (Centers for Disease Control and Prevention [CDC], 2019), which could tackle the issue of shortage of pediatric educators within the units, supporting the institution's quality improvement efforts as expressed by the area supervisor (Personal communication, October 22, 2020).

Accordingly, implementing this evidence-based practice-change project can fill the theory-practice gap, reflected in the nurses' pediatric-specific assessment and documentation. Also, the nurses may improve on patient education efforts, which will be documented in the patient record for improved clinical communication and collaboration. These efforts augment healthcare outcomes and care quality within pediatric settings, improve stakeholders' satisfaction, and maintain institutional accreditation and approval status as a center of excellence and a leading teaching hospital (Kettner et al., 2017; Smith, 2018).

Hence, this staff education project explicitly supported four specific Doctor of Nursing Practice Essentials. These essentials are the scientific underpinning for practice, clinical scholarship and analytical methods for evidence-based practice, organizational and system leadership for quality improvement, and advanced practice. These essentials are highlighted by the nursing profession (American Association of Colleges of Nursing, 2006) for ensuring scientific underpinning in pediatric practice, reinforced by the University in their social change vision and mission (Walden University, 2020; Walden University, Center for Social Change, 2020).

Local Background and Context

The selected institution is one of the major teaching hospitals in the Caribbean. This hospital is the clinical laboratory for several medical and paramedical professionals across the Caribbean and has been recognized as the center of excellence in training healthcare professionals since its establishment (Jamaica Information Service, 2020). The four pediatric units can house 80 children (birth-12 years) on any given day and are

among the major pediatric hospitals within the region. Most of the nurses working in the pediatric units are young graduates due to the high staff turnover, mainly due to migration. Therefore, staff shortage and increased workload are perennial issues in the hospital setting, including pediatric wards, as noted by Tomblin-Murphy et al. (2016) and unit managers at the project site (Personal communication, October 20, 2020).

In the pediatric settings, due to the variations in the assessment and the nature and categories of data collected from children and families, the assessment must be custom-made to fit children's unique needs. Considering the physical, physiological, growth, and development needs, the educational and discharge plan may vary (Ramgopal et al., 2018; World Health Organization, 2002). Besides, no regular pediatric staff training or education, including pediatric assessment and documentation, were conducted by the staff development/in-service education unit due to resource constraints. The new nurses' orientation program to the pediatric units was not specially designed to encompass pediatric-specific assessment or documentation variance (Personal communication with the nurses and in-service educators).

In a documentation audit, Blake-Mowatt et al. (2013) identified weaknesses in documentation, patient teaching, and discharge planning in the medical-surgical settings of major Jamaican hospitals. No similar studies were located to reflect the findings in pediatric settings. However, it was widely accepted that the assessment and documentation issues are similar in hospitals across the island due to fewer ongoing in-service education opportunities or structured staff education programs, especially in the

pediatric setting, as endorsed by the in-service educators on-site (Personal communication, November 30, 2020).

A brief review of the nurses' shift notes, admission and discharge notes, and direct observation of the end of shift report revealed inadequacies in assessing and documenting the growth and development-specific and condition-specific assessment. The child and family educational needs are seldom assessed or documented, or when documented, it is not specific or targeted to cater to the individualized needs of children and families. Preliminary deidentified chart reviews in the pediatric units revealed inadequacies in assessment and documentation (case-specific, age-specific, development-specific) in over 80% of the nurses' shift notes. Furthermore, learning needs assessment, documentation of discharge plan, and patient education records are inadequate or nonspecific.

Therefore, there was a need to fill the theory and practice gap and improve patient outcome through timely and relevant staff educational interventions, supporting the institutions' current quality improvement initiatives. Thus, this educational project is expected to improve the standard of care and better healthcare outcome through quality assessment and documentation practices in the pediatric units. This project was feasible in the pediatric setting, as the needs and demand for staff education and training were high. The various departments operating within the hospital, such as the in-service education unit and the QA unit, were in great demand for staff education projects without a qualified pediatric in-service educator.

Moreover, the financial and other resources are scarce for an educators' appointment amid COVID-19-imposed financial constraints, making this project more relevant and timely, as expressed by the in-service education director and QA officer (Personal communication, October 20, 2020). The project was also identified based on the nurse managers' feedback, in-service educators, the QA unit, and the nurses working in the units. The professional relationship that I have developed with the hospital managers, staff, and pediatric unit supervisors was also an added advantage for planning and implementing this project. My professional knowledge and expertise as a pediatric nurse were essential for planning and executing this project. Therefore, I am confident that this project was beneficial, practical, and viable to improve care and healthcare outcome.

Role of the Doctor of Nursing Practice Student

I always believed that a relevant assessment would form the basis for effective care planning. As an educator, I have observed that the nurses/student nurses who failed to complete a comprehensive assessment developed poor quality care plans/education plans, and the inadequacies were evident in their documentation. Keeping this in mind, I further observed and collected information on nurses' assessment and documentation practices during my practicum. I had a rude awakening and revelation concerning the assessment, documentation, and patient/family education practices, requiring urgent attention and timely intervention by an advanced practitioner or specialist.

Therefore, my primary roles in this project were educator, mentor, change agent, and facilitator. As a nurse educator, I identified the learners' needs and was compelled to

find pragmatic ways to incorporate knowledge into practice. Once the knowledge was transferred, I empowered the nurses to use it in their practice settings to fill the theory and practice gap; an advanced practitioners' role as facilitator and mentor (see Harrison & Killion, 2007). As a result, a doctoral student could also act as a change agent in pediatric practice by influencing the assessment and documentation practices (Ohio University, n.d.).

The DNP student also had the overall responsibility as a project manager. She is responsible for communication, coordination, and liaison between the project team (White et al., 2016). I developed the educational materials, implemented the educational plan, and evaluated the effectiveness of the education. A completed project report with salient findings was made available to the agency and the educational institution (White et al., 2016; Hodges & Videto, 2011).

I do not think that this educational intervention involved any personal bias in the need identification or subject/sample selection. Also, I trusted in my ability to communicate and collaborate with persons within the system without prejudice or discrimination. I also take criticisms and comments constructively to effect practice change. However, only selected topics and disease conditions were included in the data collection tool and educational materials; this might have caused personal bias due to the subjectivity in selecting the content/area (Gray et al., 2017); however, considerations were given to the archetypal conditions.

Role of the Project Team

Through the Committee Chair, committee members, and the Program Director, the educational institution ensured the project's ethical conduct while ensuring the doctoral projects' quality and standards (Walden University, 2019). The Clinical preceptor and the experts from the clinical and academia suggested specific contents to be included in the staff education resources. The Nurse In-charges, Clinical Nurse managers, and the Nursing administration acted as liaisons between the nurses and the DNP student. They also provided deidentified information on the participant nurses and helped in planning educational interventions' logistics (Jeffery, 2015; Walden University, 2019). They were also integral in preparing the educational materials and providing pointers to include institution-specific assessment and documentation practices.

The in-service education unit, nurse managers, expert clinicians, and educators ensured educational materials' quality and content validity. A period of fifteen days were given to the clinicians and experts to provide feedback on the content matter for staff education and the survey tool (Jeffery, 2015; Walden University, 2019). Also, the on-site project team supervised the ethical conduct of the project (Walden University, 2019). The nursing management team and the in-service education unit were responsible for sending out the flyers and recruiting the nurses to participate in the educational session. Nurses were expected to actively participate in the teaching-learning process and complete the pre and posteducation questionnaire within two days of receiving the document.

The clinical preceptor was also the liaison between the student and the nursing administration or the staff development unit and the university. At the same time, the

preceptor and the student initiated and maintained the communication between the team using the appropriate channels, modes of communication, and chain of command established within the organization and the university. During the practicum hours, face-to-face verbal communication were utilized where possible. When applicable, written communication utilizing emails and social media platforms were employed due to the COVID-19 imposed restrictions. After verbal/written communication, the student-preceptor and the stakeholders' collaboration were established. Communication and collaboration continued among the parties involved throughout the project cycle for a shared interest in improving healthcare outcome.

Summary

This section dealt with the background and the context of the project. The project's theoretical underpinning is explained in this section, along with the doctoral students' and the project teams' roles. The projects' relevance to nursing practice is also detailed in this section. Complete assessments and precise documentation are vital to managing children and their families. Many nurses working in the pediatric setting expressed confidence in their knowledge of assessment and documentation practices; however, brief verbal communication and examination of deidentified nurses' documentation revealed inadequacies in the knowledge and practice.

The disclosure that the practice does not meet the evidence-based best practice standards became imperative to address the issue to raise practice standards and fill the theory-practice gap as a doctoral scholar-practitioner (American Association of Colleges of Nursing, 2006). This project also supported the institutional pursuit for quality

improvement and followed this teaching hospitals' mission and vision to become the regional flagship institution within the Caribbean (Jamaica Information Service, 2020).

The following section illustrates the data collection, analysis, and evidence synthesis for the project, a crucial aspect of this project's successful planning and implementation.

Section 3: Collection and Analysis of Evidence

Introduction

It is well accepted that there are differences in the assessment and the nature and categories of data collected from children and families by virtue of their age-specific growth and developmental characteristics and the physiological, psychosocial, and cognitive differences (World Health Organization, 2002). Therefore, assessment and documentation variance exist in pediatric practice settings (Ramgopal et al., 2018; World Health Organization, 2002). A brief review of the nurses' shift notes, admission and discharge notes, and direct observation of the end of shift report at the project site revealed inadequacies in assessing and documenting the growth and development-specific, condition-specific assessment, and patient and family teaching practices.

This project was also identified as needed based on the nurses' requests, the nurse managers' feedback, in-service educators, and the QA unit. Most of the nurses working in the units are recent young graduates due to the high staff turnover, which has been mainly due to migration. Therefore, staff shortage and increased workload are perennial issues in the hospital setting, including pediatric wards, as noted by Tomblin-Murphy et al. (2016) and unit managers at the project site (Personal communication, October 20, 2020). The various departments operating within the hospital, such as the in-service education unit and the QA unit, are in great demand for staff education projects within the pediatric settings without a qualified pediatric in-service educator.

Therefore, there was a need to fill the theory and practice gap and improve patient outcomes through timely and relevant staff educational interventions supporting the

institutions' current quality improvement initiatives. Thus, I am confident that this project was beneficial, practical, and viable at the project site to support the quality control initiatives and improve healthcare outcomes, nurses' job satisfaction, and professional development. This project's primary purpose was to improve nurses' pediatric-specific assessment and documentation practices in the selected pediatric settings, improving care quality and patient outcomes. The educational resources will guide the clinicians assigned to the pediatric settings in their assessment and documentation or be used as an educational instrument by nurse educators as a training tool in pediatric settings.

In this section, I discuss the practice-focused question, the sources of evidence, and the methods in the staff education project to improve nurses' knowledge about the assessment and documentation practices.

Practice-Focused Question

Assessment and documentation variance exist in pediatric practice settings (Ramgopal et al., 2018; World Health Organization 2002). Incident reports and data from various QA departments have brought attention to the quality of assessment and documentation and potential for safety breaches as concerns in the hospital, including the pediatric setting at this project site (Quality assurance officer, Personal communication, October 20, 2020). A brief review of the nurses' shift notes, admission and discharge notes, and direct observation of the end of shift report revealed inadequacies in assessing and documenting the growth and development-specific and condition-specific appraisals. The child and family educational needs are seldom assessed or documented, or when

documented, are not sufficiently specific or targeted to the individualized needs of children and families.

In a documentation audit, Blake-Mowatt et al. (2013) identified weaknesses in the documentation, patient teaching, and discharge planning in the medical-surgical settings of major Jamaican hospitals. No similar studies were located to reflect such findings in pediatric settings. However, it is widely accepted that the assessment and documentation issues are similar in hospitals across the island due to fewer ongoing in-service education opportunities or structured staff education programs, especially in the pediatric setting, as endorsed by the in-service educators on-site (Personal communication, November 30, 2020).

This clearly points towards a theory-practice gap, requiring urgent attention and carefully planned interventions. Therefore, the practice-focused question was as follows:

PFQ: Is there an improvement in nurses' knowledge about the assessment and documentation practices in the pediatric settings after implementing an educational intervention/teaching plan when appraised using a pre- and postquestionnaire?

Nurses' knowledge of pediatric-specific assessment and documentation is imperative for improving the quality of care, resulting in better healthcare outcomes. This project's primary purpose was to improve pediatric-specific assessment and documentation practices in the selected pediatric settings to improve the quality of care. In addition, this educational intervention and the educational materials may guide the nurses in their assessment and documentation on-site or be used as an educational

instrument by nurse educators or as a training tool by managers for orientation sessions and in-service education.

Consequently, the educational sessions and the resources may help standardize the assessment and documentation practices. Also, as the Jamaican Public Health system attempts to implement electronic medical records, this educational resource may aid managers in developing assessment and documentation templates for pediatric practice. The improved knowledge can act as a catalyst for change in the selected organization to enhance quality practice (White et al., 2016).

Sources of Evidence

The data sources included in this section are mainly from internationally approved agencies and pioneers in developing pediatric practice guidelines and protocols. This projects' research and specialty data were primarily related to pediatric assessment, documentation, the significance of patient education, and its impact on the quality of care or practice change in pediatric settings. These sources (e.g., Gray et al., 2017; Kettner et al., 2017; White et al., 2016) were carefully selected to support the project question, purpose, theoretical backing, and planning.

In general, a comprehensive assessment and precise documentation are considered central in the successful management and homecare of patients and their families at various life stages in the health-illness continuum (Amponsah, 2019; Royal Children's Hospital Melbourne, 2019; Smith, 2018; World Health Organization, 2002). Incident reports and data from various QA departments have brought attention to the importance of assessment and documentation and potential for safety breaches as concerns in the

hospital, including the pediatric setting at this project site (Quality assurance officer, personal communication, October 20, 2020).

Blake-Mowatt et al. (2013) identified weaknesses in the documentation, patient teaching, and discharge planning in a major Jamaican general hospital in a documentation audit. No similar data were located to reflect such findings in any pediatric setting. However, it is widely accepted that the assessment and documentation issues were similar in hospitals across the island due to fewer ongoing in-service education opportunities or structured staff education programs, especially in the pediatric setting, endorsed by the in-service educators on-site (Personal communication, November 30, 2020).

The project site nurses and the ward managers noted and reported that the admission assessment, hand-off and receiving notes, regular nurses shift notes and reports, or the discharge teaching often lacked information on the growth and development-specific, age-specific health promotion instructions, and other relevant pediatric-specific information (Personal communication, April 15, 2020). A brief review of the nurses' shifts notes, admission and discharge notes, and witnessing the end of shift report during my previous Walden practicum experience confirmed the ward managers' reports. Therefore, addressing the assessment and documentation issues were considered crucial as improper assessment and documentation affect clinical communication and interdisciplinary collaboration (Delnavaz et al., 2018). In addition, inadequate assessment and documentation fail to detect changes in clinical state, duplication, and/or omission of

care and reduce care efficiency by the multidisciplinary team (Delnavaz et al., 2018; Royal Children's Hospital Melbourne, 2019).

Thus, an appraisal of the nurses' knowledge on pediatric-specific assessment and documentation and appropriate educational intervention was timely and apt, as noted by the quality assurance officer on-site and the hospital managers (Personal communication, October 20, 2020). Also, interviewing nurses in the pediatric settings revealed a gross deficiency in their knowledge of pediatric-specific assessment and documentation. In addition, examining the deidentified nurses' shift notes, admission assessments, and nursing care plans uncovered substandard documentation practices that may compromise the children's safety and the nurses' and institutional ethical-legal protection (Bemister & Dobson, 2011; Dean et al., 2020).

This section's other data sources are mainly from internationally approved agencies and pioneers in developing pediatric practice guidelines and protocols. The documental support from specialty books emphasized the staff education needs and projects' logistic assistance. This proposal's literature and specialty data were primarily related to pediatric assessment, documentation, the significance of patient education, or its impact on the quality of care or practice change in pediatric settings. These sources were carefully selected to support the project question, the purpose, theoretical backing, and project planning (Gray et al., 2017; Kettner et al., 2017; White et al., 2016). Local/regional literature on pediatric nurses' assessment, documentation, care planning, or patient teaching is scarce. Moreover, this is a quality improvement doctoral project,

and the supporting evidence was primarily anecdotal and based on data from various QA departments.

Several databases and websites were searched to develop the educational materials and the survey tools and plan the project with literature support. The search of databases such as ProQuest, EBSCOhost, CINAHL, MEDLINE, and Science Direct, using the key terms *assessment and documentation in pediatric practice, pediatric assessment and documentation, quality improvement in pediatric documentation, documentation in pediatric practice, and pediatric-specific assessment and documentation*, provided robust evidence on the search topics. A similar keyword search was also done to compile the project report.

Besides, resources from the American Academy of Pediatrics, Institute of Pediatric Nursing, Agency for Healthcare Research and Quality, and American Academy of Family Physicians were reviewed to obtain specialty data for proposal and final project development. Resources from these websites were used for developing the staff education manual/booklet. These websites provided rubrics/outlines for developing the project plan and evidence-based best practice information for the project implementation. In addition to the web resources, institution/country-specific best practices in assessment and documentation were integrated into the project development, obtained on-site from the staff development unit/nursing administration.

In general, a comprehensive assessment and precise documentation are considered central in the successful management and home care of patients and their families at various life stages in the health-illness continuum (Amponsah, 2019; Royal Children's

Hospital Melbourne, 2019; Smith, 2018; World Health Organization, 2002). Keeping this tenet in mind, I analyzed the reports and data from the QA units/departments, which have brought attention to the probability of safety breaches in the pediatric settings (QA officer, personal communication, October 20, 2020).

The nurses and the ward managers noted and reported at the project site that the admission assessment, hand-off and receiving notes, regular nurses shift notes/report or, the discharge teaching often lacking information on the growth and development, the age-specific health promotion instructions, and other relevant pediatric-specific information (Personal communication, April 15, 2020). A brief review of the nurses' shifts notes, admission and discharge notes, and witnessing the end of shift report during my previous Walden practicum experience confirmed the ward managers' reports.

Knowledge translation is considered a crucial first step in practice improvement and healthcare outcomes (Christian, 2012). Therefore, addressing the knowledge issues about the assessment and documentation is crucial as improper assessment and documentation affect clinical communication. Besides, inadequate assessment and documentation fail to detect changes in children's clinical state, duplication, and/or omission of care and reduce care efficiency by the multidisciplinary team (Delnavaz et al., 2018; Royal Children's Hospital Melbourne, 2019).

Evidence Generated for the Doctoral Project

It is well accepted that the data collected from the key stakeholders and the organizational system and processes will lead to better professional development and system performance for any quality improvement project. Thus, the nurses, clinicians,

and managers' testimonies, experiences, feedback, and viewpoints formed the evidence for this project and supported organizational data to answer the clinical question (Jeffery et al., 2015; Joshi et al., 2014).

Participants

The participants were registered nurses (RNs) working in the pediatric wards, including the sessional/part-time staff. The nursing administration identified 50 nurses as potential participants in the study ($N=50$). The shortage of nurses in the hospital necessitates nurses' sudden transfer to the pediatric settings as and when necessary. So, it is indispensable to consider the frequent part-timers and floaters in the participant pool. Many nurses are young graduates and are not pediatric specialty-trained, which necessitated this staff education. Thus, this staff education project helped answer the clinical question, and the improvement/change in knowledge scores provided reliable and objective information to effect system and process changes.

Procedures

This staff education project aimed to improve nurses' knowledge about pediatric-specific assessment and documentation and enhance children's (birth to 12 years) healthcare outcome through knowledge translation. Firstly, I had updated and sensitized the nursing administration/clinical managers regarding this project's timeline and purpose. I had identified clinical experts and content specialists who communicated the intent and solicited cooperation before developing the education manual guided by the Walden DNP staff education manual (Walden University, 2019).

The educational materials/manual for staff education and pre and posteducation survey questionnaire were developed based on input from the content specialists and practice experts to ensure educational materials' content validity. The experts identified were three ward in-charges/managers of pediatric units, one consultant pediatrician, and two specialist pediatric nurse educators. The educational content and knowledge survey included the organizational/pediatric and the country-specific evidence-based policy standards/criteria for documentation (Walden University, 2019). The clinical preceptor, the Project Committee Chair, and the Committee members also provided expert guidance and feedback on the staff education manual and the project cycle. It was crucial to maintain open communication with the stakeholders, maintain links and partnerships to develop tools and educational materials, and ensure cooperation from the clinical sites (Jeffery et al., 2015).

The survey questionnaire and the staff education materials were compiled under four specific domain:

- Demographic information of the staff,
- Growth and development from birth-12 years,
- Assessment, documentation, and the educational needs of children and families,
- Disease/symptom-specific assessment and teaching needs of selected medical/surgical conditions.

The most prevalent illnesses included in the education plan were identified by the doctoral student, nurses, and the staff development unit, which were general management

of children with cancer, asthma, and sickle cell disease. Child abuse and neglect were incorporated in the educational and survey tools, considering its relevance to pediatric practice due to the universality of child abuse/maltreatment in Jamaica (United Nations' Children's Fund, 2018). The selected surgical conditions included in the education were mainly elective surgeries to correct tetralogy of Fallot, hypo/epispadias, cast care, and management of children with fractures/tractions. These are common conditions that needed accurate teaching and timely follow-up to prevent permanent disability and life-threatening sequelae.

The educational interventions were planned based on Mezirows' adult learning theory, and the fundamental theoretical concepts were centered around reflective learning for adult education (Mezirow, 1998; Mukhalalati & Taylor, 2019). According to the theorist, Mezirow, learning happens when new information/knowledge is integrated into the existing knowledge base while the learners maintain their initial frame of reference. However, the learner continues to change their perspective through reflection, critical evaluation, action, and transformation (Mukhalalati & Taylor, 2019). Nurses were equipped with evidence-based knowledge and pediatric-specific assessment and documentation perspective through this educational intervention. Such improvement in knowledge may provide critical thinking opportunities, permitting questioning their old practices for care reform. Finally, the nurses are expected to act on the new perspective gained and influence change in assessment and documentation practice in the pediatric settings.

The data collection tool was a survey using a self-administered online questionnaire (pre and posteducation) to evaluate the nurses' knowledge of age/disease-specific pediatric assessment and documentation.

Staff education sessions were conducted using a Zoom platform in small groups (maximum of 15), accessed on their phones/personal devices. Nurses were instructed to download the application on their phones. Arrangements were made with the hospital administration to access hospital Wi-Fi, and a data plan was purchased for the nurses to access education sessions. As discussed with the nurses and the ward in-charges, the best possible time to offer staff education was between 4-6 pm to accommodate all the nurses working various shifts. During the set hours, the educational sessions were offered daily for two consecutive weeks to accommodate all the nurses employed in the pediatric units and cover the content under different domains. Educational contents were covered in one week, and the same information was repeated in the following week to ensure the dissemination of information to all participants. The staff education sessions included a PowerPoint presentation and discussion based on scenarios. Staff education materials were emailed to the participants for further reading at their convenience. Prompts and pointers were included in the weekly emails to guide self-learning.

One week post-implementation, the post-test was conducted on staff knowledge regarding their assessment and documentation using the same tool used for the pretest. Following implementation, data were organized and analyzed using descriptive and inferential statistics. Inferential statistics were inevitable in this study to identify the improvement in nurses' knowledge scores. A paired *t* test was used to identify

improvement in the nurses' knowledge of the assessment and documentation practices posteducation (British Medical Journal, 2020).

It is well accepted that adults learn if they are self-motivated, and there is a need to learn. As learners, nurses also learn through reinforcement and experience from their clinical practice (Twaddell, 2019). Therefore, it is acknowledged that the short timeframe in which the study is bound to be completed may have been a limitation in assessing knowledge development. I compiled the project and disseminated the findings to the relevant authorities and the nurses. I also plan to disseminate the findings in professional forums or nursing conferences. The findings were also shared with in-service educators for emphasizing their pediatric course teaching. I will also prepare the document for publication in a peer-reviewed journal for dissemination.

Protections

This project did not overtly pose any risk to human subjects or their safety. However, collecting information on professional knowledge and competence in the nurse's assessment and documentation using a questionnaire might have caused reluctance in participating in the project. This hesitancy would have been one of the reasons for participant attrition. Nurses were reassured that the questionnaire survey only determine the need for continuing education and quality improvement, not to evaluate their nursing competency to form a basis for staff evaluation, promotion, or tenure. Despite the reassurance of anonymity, confidentiality, and purpose of data collected, nurses were apprehensive and skeptical about the information collected on the questionnaire, especially regarding their professional competence. The anonymity was

addressed using a coding system on the pre and postsurvey questionnaire. Maintaining open communication and interpersonal relationship with the nurses also improved staff trust in the confidentiality of data collected. No other personal data were collected from the participants other than the decoded information from the staff development department, which helped preserve anonymity and confidentiality of the personnel, the data, and the specific units/organization (Gray et al., 2017).

Involvement of staff development/in-service education unit and the nursing administration were advantageous in ensuring staff participation. Studies have shown that pediatric nurses generally appreciate professional development activities to provide safe care to children (Horn et al., 2019). However, there was a paradox, and I was aware of nurses' conflict of interest and rights, avoiding coercion and respect for participants' privileges. Also, I clarified the recruitment material and informed consent that emphasized the right to withdraw from the educational project without prejudice or penalty. Even if the partaking can be compulsory from the staff development unit, as part of professional growth and quality improvement initiatives, the paradox of rights to participate and withdraw at any project stage still existed. I, therefore, honored the nurses' rights as the project manager in communication with the managers (Gray et al., 2017).

Approval by the project committee and the university research reviewer were obtained before seeking the Walden Institutional Review Board (IRB) approval (# 09-20-21-0339670), following the university's stipulated guidelines and measures (Walden University, 2019). Institutional permission for practicum and conducting the project was

obtained before submitting the project to the local IRB. Finally, this project also satisfied the local IRB requirements (the approval # ECP 141, 20/21) to implement the education plan in the selected organization (University of the West Indies, 2021).

Analysis and Synthesis

I organized and analyzed the data using descriptive and inferential statistics following implementation. In this project, inferential statistics were inevitable to identify the improvement in nurses' knowledge scores. A paired *t*-test was used to see if there is an improvement in the nurses' knowledge of the assessment and documentation practice (British Medical Journal, 2020). Through this staff education project, the improved knowledge supported the DNP essentials and Walden University's social change commitments, reinforced by the advanced practitioner professional role for ensuring scientific underpinning in pediatric practice (American Association of Colleges of Nursing, 2006; Bleich, 2012; Walden University, 2020; The Walden University, Center for Social Change, 2020).

Nevertheless, it is well accepted that adults learn if they are self-motivated, and there is a need to learn. As learners, nurses also learn through reinforcement and experience from the clinical practice (Twaddell, 2019). Therefore, it is acknowledged that the short timeframe in which the project was bound to be completed may have been a limitation in assessing the actual knowledge development. The data collected pre and postintervention were analyzed using descriptive and inferential statistics. The demographical data and employee characteristics are presented using descriptive statistics, and the improvement in knowledge was analyzed using a paired *t* test (British

Medical Journal, 2020; Gray et al., 2017). Data were analyzed using SPSS (Version 27) and presented using tables and figures. The data synthesized from the project analysis were included in the discussion and recommendations utilizing robust literature support. I compiled the project and disseminated the findings to the relevant authorities and the nurses. I will prepare the document for publication in a peer-reviewed journal for dissemination.

It is also essential to safely upkeep the survey responses and the educational resources. The doctoral student and the in-service/staff development unit keep the online survey and the soft copies, tools, data spreadsheet, and educational resources. Such collaboration allows for the planning and the implementation of future quality improvement or evidence-based educational projects. When analyzing and reporting, consideration was given for any missing information in the questionnaire and response rates. This data also guided the nursing managers to identify practice issues and plan future projects accordingly (Jeffery et al., 2015; Joshi et al., 2014).

Summary

This section dealt with the practice-focused questions, the sources of evidence, the data collection, and analysis methods. Data synthesis and dissemination were also discussed in this section. The ethical conduct to meet the objectives was vital for this educational project. The sources of evidence were robust, and the information provided was evidence-based. The analysis and synthesis of evidence are organized according to the project goals.

The following section (Section 4) elaborates on the findings and recommendations of the project. This section also elucidates the strength and limitations of this project.

Section 4: Findings and Recommendations

Introduction

A theory-practice gap exists in the pediatric nursing practice at the selected institution, especially relating to the case-specific, age-specific, development-specific assessment and its documentation due to a plethora of system and process issues. During my clinical practicum, I identified this specific practice problem, supported by the nurse managers, educators, and the QA office. In addition, the preliminary deidentified chart reviews in the pediatric units on-site showed that 80% of the nurses' assessment and documentation lacked specific assessment data and the patient and family's learning needs assessment and relevant documentation. It was also reported that the nurse managers' and QA officers' efforts to address such gaps were unsuccessful due to resource constraints. Furthermore, the nurses' orientation program was not specially designed to encompass pediatric-specific assessment or documentation variance. In addition, Jamaica's 2015-2018 strategic plans emphasize child and adolescent health and cost-effective service delivery to the vulnerable population. Therefore, empowering nurses with knowledge and capacity building was vital to provide competent care to children and families seeking healthcare, especially when there is a shortage of qualified pediatric nurses (Government of Jamaica, 2014).

Hence, there was a need to fill the theory and practice gap and improve patient outcomes through timely and relevant staff educational interventions, supporting the institutions' current quality improvement initiatives in collaboration with the nursing administration and the QA office. The practice-focused question is as follows:

PFO: Is there an improvement in nurses' knowledge about the assessment and documentation practices in the pediatric settings after implementing an educational intervention/teaching plan when appraised using a pre and postquestionnaire?

As envisioned by the nursing profession and the organization, this project engaged the nurses and managers for better collaborative partnership and sustainable change in nursing assessment, documentation, and patient education effort. These partnership empower nurses and managers to elevate the standard of care and ignite further quality improvement projects or research ideas for a positive change to achieve the institutional mission of teaching, research, and improved patient care.

I searched several databases and websites for developing the project plan, pre and postsurvey, and educational materials. I searched databases such as ProQuest, EBSCOhost, CINAHL, MEDLINE, and Science Direct, using the key terms *assessment and documentation in pediatric practice, pediatric assessment and documentation, quality improvement in pediatric documentation, documentation in pediatric practice, and pediatric-specific assessment, safety, and quality in pediatric practice*. These searches provided robust evidence on the search topics to compile this project. In addition, resources from the American Academy of Pediatrics and the Institute of Pediatric Nursing were reviewed to obtain specialty data for the compilation of this project. These websites, subject-specific books, and journals provided rubrics and outlines for developing the project plan and report writing.

Nurses' knowledge of pediatric-specific assessment and documentation is imperative in improving care quality, resulting in better healthcare outcome (American

Academy of Pediatrics, 2021b). Therefore, this project's primary purpose was to improve nurses' knowledge of pediatric-specific assessment and documentation practices in the pediatric settings of the selected institution.

Recruitment of nurses, data management, ownership of data, and storage/access to the data was shared as this was a joint project with the in-service education unit, nursing administration, and the QA unit. The education project was implemented for the willing nurses online, using discussions, interactive question-answer sessions, and PowerPoint presentations. Staff education materials (Appendix B) were also made available to the nurses and educators for future use.

Findings and Implications

Forty-five nurses informally agreed to participate in the project, and 25 consented to participate and completed the pre-education survey. However, only 17 nurses completed the education program and pre and posteducation surveys.

Key findings from the demographic data indicated that all the nurses who participated in the project were females between 18 and 65 years. The majority of nurses were novice nurses with limited pediatric experience, and they had not received any education on pediatric-specific assessment or documentation. Further details are given in Table 1.

Table 1*Age of the Participants*

	N	%
18-35	14	56.0%
36-45	6	24.0%
46-55	4	16.0%
56-65	1	4.0%

Table 1 indicates that most of the nurses who completed the pre-education survey were young, and the majority, 14 (56%) out of 25 nurses, were between 18-35 years. Only one nurse in this project was over 55 years old.

Figure 2

Total Years of Experience in Years

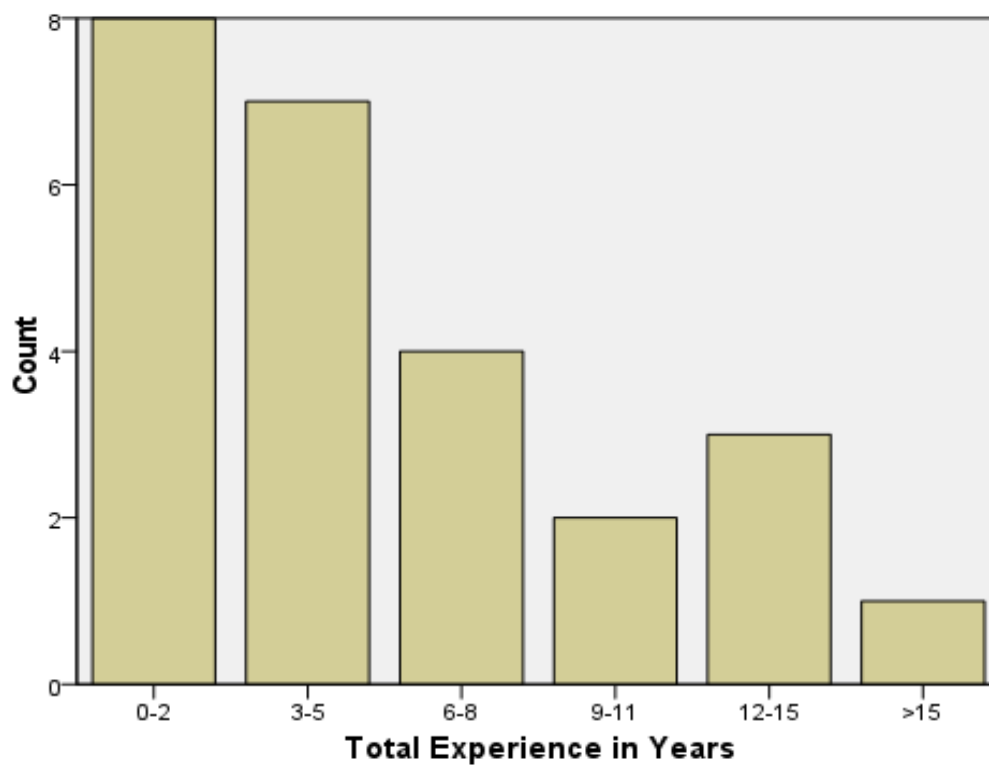


Figure 2 clearly shows that the majority of nurses (60%) had between 0-5 years of total clinical experience, and only one nurse had over 15 years of total clinical experience.

Figure 3

Total Pediatric Experience in Years



Figure 3 above shows that 19 out of 25 nurses (76%) had less than 5 years of pediatric clinical experience, and four (16%) nurses had over 9 years of experience in the pediatric setting.

Figure 4

Percentage of Nurses Who Received Continuing Nursing Education on Pediatric Assessment and Documentation

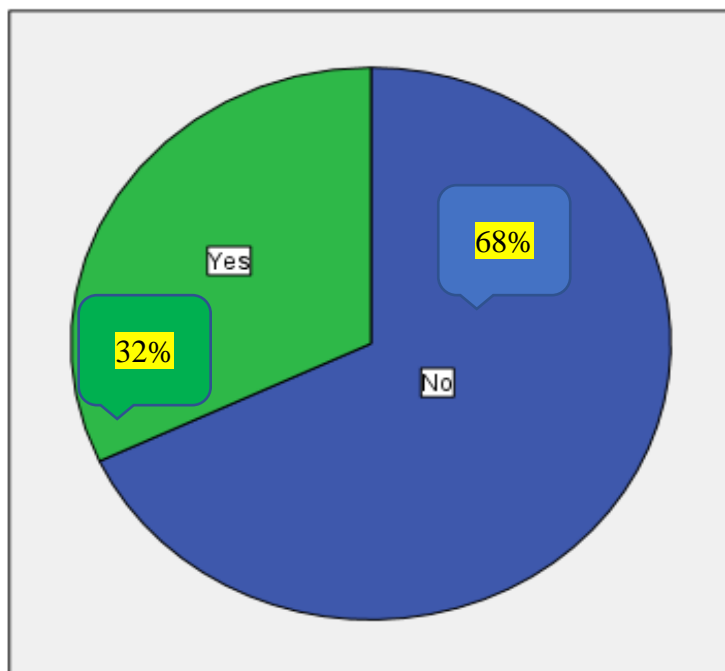


Figure 4 indicates that only 32% of the nurses had received education on pediatric-specific assessment and documentation during their tenure at this organization.

Table 2*Pre and Posteducation Test Scores*

		Pre-education score	Posteducation score
N	Valid	25	17
	Missing	0	8
Mean		3.32	10.94
Median		3.00	10.00
Mode		3	10
Range		7	8
Minimum		1	8
Maximum		8	16

Table 2 depicts the number of nurses who participated in the pre and posteducation survey and provides the scores received pre and posteducation.

Twenty-five nurses participated in the project and completed the pre-education survey; however, only 17 completed the education program and the posttest. The maximum and mean score for the pre-education survey was 8 and 3.32, respectively, while in the posttest, the scores improved to 16 and 10.94, respectively.

Further, inferential statistics (a paired *t* test) was used to compare the means of the pre and posteducation scores. As detailed below, this statistical method is apt when the score is obtained from the same subjects at two different points (British Medical Journal, 2020).

Table 3*Paired t-Test Scores*

		Mean	<i>N</i>	Std. deviation	Std. error mean
Pair 1	Pre-education score	3.59	17	1.938	.470
	Posteducation score	10.94	17	2.512	.609

Table 3 indicates the pre and posttest mean scores and their variances. It shows an increase in the mean knowledge score of 7.35 in the posttest ($10.94 - 3.59 = 7.35$). In addition, the mean variance for the pre and posttest were $\pm SD$ 1.938 and 2.512, respectively.

Table 4*Paired t-Test Values*

		Paired differences					t	df	Sig. (2- tailed)
		Mean	Std. deviation	Std. error Mean	95% Confidence interval of the difference				
					Lower	Upper			
Pair 1	Pre-education Score Posteducation Score	-7.353	1.835	.445	-8.296	-6.409	-16.520	16	.000

Table 4 summarizes the pre and posttest scores and depicts the effect of the educational interventions. The values display an increase in the knowledge score with a mean difference of -7.353 and a $\pm SD$ of 1.835. The 95% confidence interval = -8.296 to -6.409. The t -value is -16.520; df 16, and the p is < 0.005 ; indicates a statistically significant improvement in the posteducation knowledge scores.

Continuing Education Needs of Nurses- Identified in the Survey

Nurses also expressed that they would prefer to have further education on the following areas/topics in the future. These topics are grouped under four main concepts as given below:

- Psychosocial aspects of pediatric care: Relationship between psychiatric disorders and sexual abuse, management of children with psychiatric issues, how do nurses cope with the pediatrics, mental health issues in children/pediatric mental illnesses, psychosocial needs of children, communication with patient/family, psychological management of patients and family (disrespectful parents), the impact of COVID-19 on childrens' mental health.
- General conditions/management: Care of the children with cancers (all age groups), chemotherapy, pediatric oncology, IV chemotherapeutic precautions for children, medication administration, COVID-19 management in children, care of the child with renal problems, type-1 diabetes management in children, common medical conditions in children, acute splenic sequestration, worldwide pediatric practice versus Caribbean based pediatric practices.
- Interventions/skills: Pediatric Advanced Life Support, use of advanced resuscitation equipment, and delivering oxygen via advanced airway, infection control, pediatric physical assessment, nutrition

assessment/management, assessing social and emotional development of older children

- General topics: ethics in childcare, pediatric end-of-life care and management of dying children/death, care of children in the NICU, child safety-at-home and hospital.

Implications

This staff education project adhered to the guidelines outlined in the Walden University Manual for DNP Scholarly Projects. The project cycle and the education framework were strictly based on Walden University stipulation for doctoral projects and the local IRB guidelines.

Lessons learned from this project may guide nursing administration and the organization to develop and implement policies and strategies that guide participation in the hospital-sponsored in-service education programs (Joshi et al., 2014; White et al., 2016). These policies may aid in better utilization of available resources amidst the resource constraints for quality improvement (Alasoini, 2004; Margonari et al., 2017). Participants increased knowledge of assessment and documentation practices may boost their self-confidence and morale within the work settings (Pelayo et al., 2011). Consequently, this staff education may facilitate accurate documentation, improve clinical communication, and provide legal protection for nurses and institutions (Bemister & Dobson, 2011).

Although nonparticipants will miss out on crucial information relevant to pediatric practice, the educational materials were made available in the pediatric settings

for their knowledge enhancement. Through better interdisciplinary collaboration and clinical communication, knowledge enhancement and improved practice can create a favorable working milieu in pediatric settings (Alasoini, 2004; Pelayo et al., 2011). Pointers given for assessment and documentation priorities may guide the development of an electronic health record system (Akhu-Zaheya, 2017), which might improve care delivery and patient educational efforts; enhance stakeholders' satisfaction and interpersonal relationships.

It is also important to note (Figure 4) that the nurses who received continuing nursing education (CNE) on pediatric-specific assessment and documentation during their tenure at this organization were only 32%. Therefore, the findings also indicate the need for regular in-service education and skill training. I also support the recommendations by McCarthy & Wyatt (2014) to include ample direct patient care hours in the basic nursing curriculum and one-to-one patient care experiences for nursing students under qualified pediatric educators. However, the scarcity of qualified pediatric clinical and classroom educators within the island must be addressed by encouraging nurse retention and strengthening managed migration efforts (see Salmon et al., 2007). These experiences may empower future nurses to handle the challenges posed in the current pediatric practice to some extent.

Although participants benefitted from the educational interventions, many nurses did not utilize the opportunity to empower themselves with the knowledge and skills for varied reasons. Informal nurses' feedback revealed that competing personal and professional priorities, lack of time on the job, and mostly apathy to peruse the reading

materials were significant barriers to participation, similar to the findings by Athanasakis (2013) and Harris et al. (2016). Others expressed that they have sufficient CNE hours for re-registration and do not need to attend more education sessions. Nurses' attitudes towards CNE and perception of irrelevance towards continuing education efforts may impact the practice and the quality of care, leaving the children at risk for injury (Athanasakis, 2013).

The hospital administration, QA office, and in-service educators have a mammoth task to instigate nurses' interest in advancing specialty knowledge and on-the-job training. Healthcare organizations and managers are responsible for promoting a positive attitude towards continuing/in-service education, not merely achieving eligibility for license renewal (Athanasakis, 2013; Shoghi et al., 2019). Although sufficient available evidence speaks about barriers to continuing education and research utilization, additional investigation into the barriers and facilitators of future quality improvement projects in this setting will prove effective (Harris et al., 2016).

Subsequently, this project also has implications for the planning and implementation of future staff education projects as well as positive social change by the improved patient and healthcare outcome (Bindon, 2017; Ingwu et al., 2019), identified by the participants in this survey. The main themes that emerged from the responses were pediatric oncology and related topics, diabetes management in children, mental health alterations in children, and pediatric advanced life support. These are key topics that are communicated to the managers for appropriate action.

The topics requested by the nurses were not surprising, as these also were chief issues under my consideration for staff education. It is important to note that the hospital does not have a pediatric oncology section, and the children receiving chemotherapeutic agents or terminally ill are admitted to the same unit with other children due to space/staff constraints. Many nurses are not trained to prepare, handle or administer chemotherapeutic agents or pain and palliative care/end-of-life care. I can now present this case to the nursing administration and the in-service unit for further quality improvement projects or lobby for the pediatric oncology unit/and special skill training (see Amado et al., 2020; Tariman, 2010). Although I included the general care of children with cancers, innovative staff support programs are necessary to build patient care skills that significantly impact the caregiver and patient well-being and safety (Bindon, 2017).

Another key topic that emerged was the management of children with type-1 diabetes. It is well documented that the self-efficacy of diabetic management depends significantly on childrens'/parents' knowledge and understanding of care (El-Jamal et al., 2021). Many clinicians fail to teach the specifics of diabetic management to children/families, leading to complications and untimely death of young children. Sometimes, the nurses and the clinicians themselves do not fully understand the essentials of diabetic management. The hospital only have three active qualified diabetic educators to cater to the patients' needs (Personal communication with the diabetic educator, October 28, 2021). Therefore, capacity building of diabetic educators is necessary, and failure to do so will have implications for healthcare outcomes of children with type-1 diabetes (see El-Jamal et al., 2021).

Mental health issues have been rising since the COVID-19 pandemic, although they existed before. Addictions of various forms have emerged among children and youngsters. Besides, the provisions for children's mental health care are limited on-site. Data analysis also suggests that many nurses are young with limited pediatric experience and require training to deal with varied mental health issues amidst the adversities to improve the general health of children and families (American Academy of Pediatrics, 2021a).

I am sure addressing the learning needs of the nurses will be beneficial to the profession and the society for improved healthcare and social outcome. The learning needs are socially and professionally relevant for improved quality of care, considering the nature and impact on children's well-being. This project inferences have social and economic implications on the organization, society, and the nation.

Recommendations

The proposed recommendation aims to address the gap-in-practice and effective resource utilization. Nurses' attitudes towards CNE may determine the quality of care and healthcare outcome (Bleich, 2012; Shoghi, 2019). Therefore, generating interest among nurses for continued learning is a task for the in-service educators and the managers. A foolproof educational approach and staff policies are necessary (Ingwu et al., 2019), affecting future staff promotion. Although educational interventions may affect practice changes, there is a need for more direct clinical skill training based on individual need assessments (Harris, 2016). Future research is needed to identify the barriers and facilitators of staff learning for practice improvement. I recommend follow-

up staff education projects using the same resources for broader staff coverage by specialty-trained staff, managers, or in-service educators and appraise the effectiveness using a chart audit for a more objective evaluation of the outcome (Lindo et al., 2016). The education materials must also be updated yearly to match international best practices. I also recommend future staff education projects to cater to the specific needs based on the nurses' feedback/identified needs for the empowerment of nurses and improved care delivery (Chaghari et al., 2017).

In addition, the staff education needs identified by the nurses in the survey must be taken into account for future staff education/quality improvement initiatives or curriculum development for staff orientation and policy development (Graf, 2011; Freixo et al., 2017). I also recommend strengthening nurses' education needs and capacity development for better care coordination, advocacy for children, ensuring quality, safety, and evidence-based practice (see Essani & Ali, 2011; Institute of Pediatric Nursing, 2010).

Contribution of the Doctoral Project Team

Through the committee chair, the educational institution's members and IRB ensured the project's ethical conduct while ensuring the doctoral projects' quality and standards (Walden University, 2019). The clinical preceptor and the experts from the clinical area and academia ensured the content validity of the tool and the educational materials. The Nurse In-charges, Clinical Nurse managers, and the Nursing Administration liaised between the nurses and the DNP student, provided de-identified participant information, and helped with the implementation logistics (Jeffery, 2015;

Walden University, 2019). Also, the on-site project team and the local IRB ensured the ethical conduct of the project (Walden University, 2019). Nurses as subjects participated in the teaching-learning process actively and completed the pre and posteducation questionnaire within the given timeframe.

Strengths and Limitations of the Project

This project was associated with several strengths and limitations. The availability of robust clinical evidence was one of the significant factors in the successful development of and implementation of this project. The gap in practice was evident in the data collected, and the organization was highly supportive. However, the participant numbers were limited, and the attrition of nurses would have influenced the validity and generalizability of the findings. In addition, I was hopeful of improving the nursing practice through education, and the limited nurse participation might not have obtained the optimum desired outcome of educational intervention. Exploration of the various factors that hindered the participation would have proven beneficial for future project planning (Athanasakis, 2013).

Besides, a more extended timeframe for education and re-assessment would have allowed better nurse participation. It is well accepted that adults learn if they are self-motivated, and there is a need to learn. As learners, nurses also learn through reinforcement and experience from the clinical practice (Twaddell, 2019). Therefore, it is acknowledged that the short study completion timeframe would have been a limitation in assessing knowledge development. Also, direct observation, demonstration, and return demonstration of pediatric assessment would have yielded better practice change (Harris,

2016). In addition, nurses may have had feasibility issues due to COVID-19 imposed competing priorities. Only selected areas and disease conditions were included in the data collection tool and educational materials to combat implementation issues. There may also have had personal bias due to the subjectivity in selecting the content/area of focus for education (Gray et al., 2017). This project omitted all the other variables affecting the knowledge and practice due to the limited scope.

Section 5: Dissemination Plan

This DNP project was designed to address a gap in nursing practice regarding pediatric-specific assessment and documentation practice of nurses working in pediatric settings. Key facilitators of disseminating research or project findings are quality improvement quest and patient care enhancement, and the project site supports the same. Therefore, the findings will be disseminated to the clinical site in a nursing workshop and conference to a broader audience of nursing professionals across the island. The findings can also be placed in the clinical areas for nurses' perusal in the form of a poster for broader access and affirmation of information (see Mason, 2013). In addition, designed electronic and printed materials will be provided for direct dissemination to the pediatric QA team, in-service department, and nurses/managers. Another way to get more visibility of this project is to publish it in a peer-reviewed journal. Pediatric nursing journals or publications aimed at quality improvement will be selected to attract the target audience, and the publisher requirements will also be considered when disseminating the project findings.

Analysis of Self

My motivation for choosing this project was to reduce the gaps in pediatric practice by improving nurses' knowledge of pediatric-specific assessment and documentation practices. I was able to strategize the project plan while catering to the needs of the nurses, in-service education team, QA unit, and the nurse managers. To protect the participants' rights, legal and ethical aspects of the research were duly considered throughout the project cycle (see Gray et al., 2017). I also developed skills in

proposal writing, research development, SPSS data entry, data analysis, and using this data for report writing, skills expected of a DNP scholar (Walden University, 2020).

My role as a project manager, advocate, educator, researcher, communicator, collaborator, and reporter helped me elevate myself as a scholar-practitioner and leader (see Harrison & Killion, 2007). I also achieved many Walden University DNP graduate student competencies, such as clinical mentorship, specialty/advanced practice, and research scholarship (American Association of Colleges of Nursing, 2006; Bleich, 2012). I am also equipped with advanced practitioner and organizational or system leadership skills to improve patient and population health outcome. I reinforced my skills related to collection, appraisal, analysis, and synthesis of evidence to solve healthcare issues (see American Association of Colleges of Nursing, 2006). At the culmination of my DNP journey, I am empowered as an advanced practitioner and can confidently face the healthcare challenges of the 21st century.

Summary

It is widely accepted that effective and targeted staff education projects are the first step to fill the theory and practice gap. Based on robust evidence, staff education needs in pediatric settings were identified in collaboration with the QA unit, in-service educators, and nurse managers, and attempts were made to close the theory-practice gaps. Participants benefitted from the educational interventions, and the posteducation knowledge scores improved significantly (≤ 0.005). However, many nurses did not take the opportunity to empower themselves with the knowledge and skills for varied reasons. Informal feedback from some of the nurses revealed that competing personal and

professional priorities, lack of time on the job, and apathy to peruse the reading materials were a significant barrier to participation in the sessions for the majority of nonparticipants, similar to the findings by Athanasakis (2013) and Harris et al. (2016). Others expressed that they have sufficient CNE hours for reregistration and do not need to attend more education sessions. Nurses' attitudes towards CNE and perception of irrelevance towards continuing education efforts may impact the practice and the quality of care, leaving the children at risk for injury (Athanasakis, 2013).

Healthcare organizations and managers are responsible for promoting a positive attitude towards continuing in-service education, not merely achieving eligibility for license renewal (Athanasakis, 2013; Shoghi et al., 2019). Although sufficient available evidence speaks about barriers to continuing education and research utilization (Harris et al., 2016), additional investigation into the barriers and facilitators of future quality improvement projects in this setting could prove effective.

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Appendix A: SPSS Data Sheet

Age	Gender	Total Experience	Pediatric Experience	Recieved CNE	Received Pediatric CNE	Pretest Score	Posttest Score
1	2	1	1	0	0	3	8
2	2	5	5	1	1	1	
3	1	1	1	0	0	4	10
4	1	2	2	0	0	1	10
5	1	2	2	0	0	4	12
6	1	1	1	1	0	2	8
7	1	3	2	1	1	3	
8	1	1	1	0	0	3	
9	3	2	2	1	1	2	10
10	1	2	1	0	0	1	
11	3	4	2	1	0	2	10
12	1	3	3	0	0	3	9
13	3	1	1	0	0	3	12
14	3	4	4	0	0	8	16
15	1	2	2	1	1	7	
16	4	3	2	0	1	5	15
17	2	5	5	1	1	4	15
18	2	6	5	0	0	3	9

19	1	1	1	1	0	0	2	8
20	2	1	3	3	0	0	4	12
21	1	1	1	1	0	0	3	10
22	2	1	5	2	0	0	2	
23	1	1	2	2	1	1	8	12
24	1	1	1	1	1	0	2	
25	1	1	2	2	1	1	3	

Appendix B: Staff Education Materials

<https://1drv.ms/p/s!AgjZs1SBzSUHwgtSyPA1i2p8I75U?e=e72tFv>

(Please use the link above for details)

Appendix C: Pre- and Posteducation Knowledge Survey (Questionnaire)

Project Title: Improving Nurses' Knowledge on The Assessment And Documentation Practice in The Pediatric Settings of a Jamaican Hospital

Purpose: To improve pediatric-specific assessment and documentation practices within the practice settings, improving care quality and patient outcomes. While completing the questionnaire, you may feel like you are completing an examination. However, this questionnaire is intended to determine the need for continuing education and not evaluate your nursing competencies. This information will not be used as a basis for staff evaluation, promotion, or tenure.

Instructions

- This questionnaire has 27 items under four sub-sections (Section 1, 2, 3, and 4)
- Please read each question carefully and adhere to the following instructions after each question before choosing the options.

Section 1: The Demographic Data (Questions 1-7)

For questions 1-5, please select/circle the options that best represent you.

Please choose one best option

1. Your gender
 - a) Male
 - b) Female
 - c) Unspecified
 - d) Do not wish to answer
2. Your age range.

- a) 18-34
- b) 35-45
- c) 46-55
- d) 56-65
- e) 66 years and older

3. Total years of experience as a Registered Nurse

- a) 0-2
- b) 3-5
- c) 6-8
- d) 9-11
- e) 12-15
- f) >15

4. Total years of experience in the pediatric settings

- a) 0-2
- b) 3-5
- c) 6-8
- d) 9-11
- e) 12-15
- f) >15

5. Since your placement on the pediatric unit,

have you ever attended continuing education sessions on pediatric nursing organized by your CE department?

- a) Yes
 - b) No
6. If your answer to question 5 is yes, have any of these sessions included pediatric-specific assessment, documentation, patient teaching, or care planning?
- a) Yes
 - b) No
7. What other topic (s) would you recommend for your further staff development/education project, specifically pediatrics? Please write your options in the space provided.

For the remainder of the questions, please answer to the best of your ability. This survey is not intended to assess your competency. Your participation would contribute to a program for Continuing Pediatric Education and quality improvement.

Section 2: The Need For Assessment and Documentation And Educational Needs of Children/Families (Questions 8-11)

8. The important reason(s) for conducting and documenting the individualized assessment of children is/are:

Select all that apply

- a) Promotes quality and standards of care

- b) Saves family and organization resources
 - c) Identifies growth and developmental needs/variations
 - d) To plan and provide appropriate and timely patient education
 - e) Forms basis for health promotion, discharge planning, and home care
 - f) Promotes child/family, healthcare provider, and organization safety and security
 - g) To find short cuts to provide care to children and families and to reduce the workload of the clinicians
 - h) For interdisciplinary/interprofessional and interprofessional communication and collaboration.
9. Priorities of admission assessment and nurses' documentation of an infant and family seeking healthcare must include the following points (***Choose the most appropriate option***)
- a) Complete medical/surgical/ history and physical assessment, nutrition, caregivers emotional state, family/social support systems, and treatment plan
 - b) Comprehensive medical/surgical, medication and family history, immunization and growth and development assessments, pregnancy, labor and delivery history, complete nutritional assessments.
 - c) Complete medical/surgical history and physical and growth and developmental assessment, nutrition, immunization status, caregiver-infant interaction, family dynamics/culture and support systems, signs of

abuse or neglect, and knowledge of the parents/family regarding child care.

- d) Medical/surgical history, growth, developmental and physical assessment, immunization status, caregiver-infant interaction, family dynamics, support systems, cultural background/practices of the family, and living conditions.

10. The assessment, documentation, or teaching must focus on the following when receiving children in the units. ***Select all that apply***

- a) Child safety and security
- b) Medications the child is on
- c) Diagnostic and laboratory reports
- d) Focused head-to-toe physical assessment
- e) Discharge plans/instruction or referral notes
- f) Previous nurses notes/care plan/documentation, if any
- g) Physician and other clinicians notes/prescriptions/treatment plans
- h) Child/families knowledge of the condition, the management, and home care
- i) Psychosocial and developmental assessment and availability of support system

11. Identify pediatric-specific considerations that will guide you in assessing and planning care/ teaching for the children/families. ***Select all that apply***

- a) The BMR is significantly lower in children compared to adults

- b) Children are at a higher risk of hypovolemic shock
- c) Dehydration in young children is due to increased insensible fluid loss, decreased ADH, and higher extracellular fluid volume.
- d) The tongue is smaller in relation to the size of the oral cavity
- e) The trachea is at an increased risk of collapse with hyperextension or hyperflexion
- f) Babies for the first few months are obligatory nose breathers
- g) The liver and spleen are not entirely protected by the rib cage
- h) Nutritional demands are higher compared to adults
- i) Young children are abdominal breathers
- j) Safety assessment is a crucial common concern for care planning
- k) Skin turgor is always a reliable indicator of hydration status in young children
- l) Parental knowledge and capabilities/resources are key considerations in care planning

Section 3: Growth And Development of Children (Birth-12 Years) (Questions 12-17)

12. AJ, a baby girl, was born 24 hours ago to a mother with a history of gestational diabetes. The baby is kept in an incubator at the neonatal nursery. The newborn assessment, documentation, and family teaching points must cover the following aspects.

Select All that apply

- a) Anthropometric measurements

- b) Blood sugar and oxygen saturation
- c) Urine output and passage of meconium
- d) Monitoring of calcium and magnesium
- e) Sodium and potassium level monitoring
- f) Parental attachment behavior and feeding
- g) Parental knowledge of baby care and safety
- h) Vital signs, especially body temperature and respiratory effort
- i) Skin color, skin turgor, body posture, activity level, and movements

13. The **primary** purpose of clinical examination of reflexes in this baby is to:

(Please choose one best option)

- a) plan nursing care of the children and families.
- b) improve neuromuscular development of infants.
- c) assess the protective effects of reflexes on children.
- d) identify early indicators of neuromuscular dysfunction.

14. Which one of the following may be a cause for concern when assessing a one-year-old infant? *Select all that apply*

- a) Cannot stay in a standing position (supported) for more than a few seconds.
- b) Every other month, the infant is treated for respiratory infection
- c) Report of excessive spilling of food when spoon-fed
- d) Increased muscle tone in the lower extremities
- e) Parental concerns about vision and hearing

- f) Frequent regurgitation of food and drinks
- g) The child does not communicate at all
- h) Does not walk or run

15. You are assessing a six months old infant. Which of the following will you document and report as abnormal findings? *Select all that Apply*

- a) Absent Babinski reflex
- b) Elicited strong rooting, grasp, and sucking reflexes
- c) Unable to sit without support
- d) Shows separation anxiety and stranger fear
- e) Screams loudly when the food trolley passes
- f) Belly is round
- g) Uses abdominal muscles to breath
- h) Respiration-30, HR-110, systolic BP- 80, temperature 99 degrees F.
- i) Positive Brudzinski's sign
- j) Overprotective parental behaviors
- k) The child is irritable when the mother holds the baby close
- l) Cannot hold head up when placed on tummy

16. Important aspects of health promotion included in the assessment and teaching school-age children and parents are the following: *Select all that apply*

- a) Physical activity and nutrition
- b) Immunization and infection prevention
- c) Educational needs of the child and the parents

- d) Vision testing and general school performance
- e) Sex education, the potential for drug abuse or violence
- f) Safety at home, school, community, and the road safety
- g) Family and social relationships and the potential for maltreatment or bullying
- h) Childs' interest/ ambitions and the financial sources/ ability to achieve the same
- i) Childs' and the parents' knowledge of health and support services available within the community.

17. You will consider the following in a school-age child as normal findings. **Select all that apply**

- a) Does not cry when hurt
- b) Has several friends and enjoys playing with them**
- c) Aware of risky and unsafe environments and behavior
- d) Coordinates hand and finger movements well, including use fingertips to pick up objects.
- e) Prefers using their left hand for completing tasks
- f) Easily startled by small sounds within the environment
- g) Does not enjoy playing in a new setting
- h) Is generally happy when not hungry or tired
- i) Responds aggressively to unexpected touch
- j) Requires long time to settle down after getting upset

Section 4: Condition-Specific Assessment, Documentation, And Education Plan**(Questions 18-27)**

You are preparing a 7-year-old boy for an ultrasound. You observed that the mom is very loving and kisses and hugs the boy and takes a few minutes to send him up for the procedure. The mother also tells you that she does not know what she would have done without him. She further added, “My boy and I are best friends, and it is us against the whole world, including his daddy.”

18. What is the best action taken by you as a nurse? *Please choose one best option*

- a) Record and report the issue to a counselor and refer the mother and the child for a psychological evaluation
- b) No action is necessary; it is expected as a single mother, and the boy needs relentless love and attention for optimum development.
- c) Explain to the mother that she is spoiling the boy, making him weak, and warn the mom that she needs to remember it is a boy.
- d) Continue to monitor the situation and investigate the issue with a social worker's help and provide emotional and social support, as necessary.

19. When discharging an adolescent with sickle cell disease, planning for a vacation in Canada, the teaching must focus on the following points? *Please choose one best option*

- a) By now, an adolescent must know most of the travel precautions and needs just reminders for managing extreme weather conditions and the travel tips.
- b) Fluid intake, skincare, flu, and COVID-19 vaccination, need for extra layer clothing in a cold climate, effective management of infections, and preparations for flying.
- c) Flu vaccination, skincare, climate, and respiratory infection management avoid extreme weather and high altitude and maintain ideal body temperature.
- d) The attending physician and nurse must educate the adolescent and family on the dangers of traveling to Canada and discourage the trip as it may precipitate a sickle cell crisis on air.

20. When educating a child and family on using a metered-dose inhaler (MDI) via a spacer and mask, which of the following points must be considered? ***Select all that apply.***

- a) Help the child to assume an upright position for the procedure
- b) Do not feed the child 15 minutes before and after the procedure
- c) Connect the spacer and the face mask firmly
- d) Shake the inhaler/canister well, attach it to the spacer, and release the medication.
- e) Allow taking deep breaths for two full minutes.

- f) After releasing the medication, instruct the child to take 6-8 deep breaths and repeat the procedure as prescribed.
- g) If more than one puff is ordered, allow the child to take deep breaths for 30-60 seconds and shake the inhaler between each puff.
- h) Rinse the mouth with tap water immediately after the procedure
- i) After the procedure, rinse the mouth with salt water and not feed the child for 15 minutes.

21. You are assessing a 12-year-old girl with a history of asthma. Identify the data you will be interested in collecting and documenting for the education plan. ***Select all that apply***

- a) The child attained menarche recently
- b) The child uses Advil (Ibuprofen) for managing dysmenorrhea
- c) She regularly uses roll-ons and perfumes to control body odor
- d) The child and family live in Duhaney Park, closer to Riverton.
- e) The family decorated her room with some attractive linoleum floors and walls.
- f) She is scheduled to appear for her Primary Exit Profile exam (PEP) in two weeks
- g) Parents have instructed the child to participate in routine physical education training at school
- h) The child performs well in both curricular and extra-curricular activities, and she is the captain of the science and environmental club.

22. You are caring for a 3-year-old girl one-day post Tetralogy of Fallot repair. The postoperative care plan must focus on all the following during your 12 hour day shift.

Select All that Apply

- a) Rooming-in care
- b) Infection prevention and education
- c) Reduction of metabolic/oxygen demand
- d) Pain Management and comfort measures
- e) Maintenance of neutral-thermal environment
- f) Social worker involvement for planning home care
- g) Fluid and electrolyte balance monitoring and maintenance
- h) Psychosocial and learning need assessment of the child and family
- i) Meeting basic needs on time or before the child starts getting irritable.
- j) Clinical evaluation of cardiac function and maintenance of hemodynamic stability

23. One of the critical education points included in parental education and documentation in the nurses' discharge notes following hypospadias repair in an infant is to: ***Choose one best option***

- a) Avoid constipation and increase calorie intake
- b) Instruct not to use tub bath and a rocking chair
- c) Improve protein and vitamin C to improve healing
- d) Educate on the dressing change and strict aseptic techniques

Questions 24 relate to the following scenario

An eight year-old-girl with leukemia has been on chemotherapy for the past three months. She has a central venous access device (CVAD) and is admitted to your unit with a line infection. She refuses to see her friends due to her alopecia. She has a temperature of 102° F, bruises on her upper arms. Examination of the mouth showed impaired oral mucosal lining. She is in pain and shows activity intolerance. Her blood work shows: Hemoglobin: 9g/dL Hematocrit: 20% Platelets: 50,000/mm³ White blood cell count: 2,000/mm³ Differential: Neutrophils 20%.

24. What would be other assessment data that can be used to prepare this girls' plan of care?

Select All that apply

- a) Urine output and specific gravity
- b) Vital signs and oxygen saturation
- c) Evaluation of sepsis screening reports
- d) Chest X-ray or other radiologic reports
- e) Assessment of mouth for any oral thrush
- f) Condition of the central venous access device (CVAD)
- g) Bleeding tendencies -blood in urine/stool, blood shots in the eyes
- h) Coping strategies and psychological assessment
- i) Knowledge of the condition, complications, and home care.

Question 25 is based on the following statement

You are caring for a 9-year-old boy hospitalized after sustaining a right femur fracture and was placed on balanced suspension traction for the past four weeks.

25. Identify the *priority* in the assessment and documentation for this boy on your 12-hour night shift notes.

- a) Capillary refill, rate and quality of pulse, skin color, sensation, muscle strength, and ROM in all extremities
- b) Capillary refill, rate and quality of pulse, skin color, sensation, muscle strength, and ROM in the affected limb.
- c) Play needs, coping abilities of the child and family, nutritional assessment, muscle strength, and ROM in all extremities
- d) The child's activity level, teaching needs, coping abilities of the child/family, complete neurovascular assessment of the child, and ROM in all the joints.

Questions 26-27 relate to the below scenario

You are admitting 3-year-old Aloma with a history of asthma and sickle cell disease. Currently, she is admitted with moderate respiratory distress. Aloma is complaining of chest pain and looks very ill. Her pulse oximetry reading is 92%, and she has a temperature of 102⁰ F. Her lips are dry and pale, her eyes are lusterless, and the sclera has yellowish discoloration. She was placed on 6L of oxygen, and intravenous fluid therapy was initiated with 5% dextrose in saline. Admission orders show Atrovent and Ventolin nebulization Stat and Q2H. Doctors are reviewing Aloma and have developed a treatment plan.

26. Identify the assessment and documentation you will perform for this child within the first 8 hours of admission. *Select all that apply*

- a) Level of pain
- b) Electrolyte levels
- c) Level of consciousness
- d) Medical orders/plan of care
- e) Urine output and specific gravity
- f) Time last ate food or drank fluids
- g) Complete growth and development assessment of the child
- h) Respiratory rate, effort, and lung sounds
- i) Pulse oximetry/Arterial Blood gas analysis
- j) Hemoglobin level, electrolytes, and renal function test (RFT)
- k) Complete blood count, electrolytes, RFT, and Liver function test (LFT)
- l) Body temperature, capillary refill, and skin color
- m) The emotional state of the child/Anxiety level
- n) Skin turgor, condition of the mucous membrane
- o) Parental knowledge of the condition and their anxiety level
- p) Family history and the triggers of asthma and the economic and social support available

27. Identify the priority points for parent/child teaching and documentation during the first 8 hours of admission after the doctor has explained Aloma's condition to the parents. *Select all that apply*

- a. Activity restrictions
- b. Need for NPO status
- c. Observation of respiratory effort
- d. Importance of seizure precautions
- e. Abstinence from smoking around the child
- f. Information on hourly urine output monitoring
- g. Warning signs of any thromboembolic complications
- h. Coping mechanisms and anxiety reduction techniques
- i. Use of cell phones and electronic devices at the bedside
- j. Need for a more frequent blood test for homeostasis monitoring
- k. Need for IV fluid therapy and maintenance of adequate hydration
- l. How to incorporate play while caring for the child in the hospital
- m. Observation of the IV site and reporting of any changes immediately
- n. Importance of promoting growth and development of the child in the hospital
- o. Information on the plan of care and expected cooperation from the parents/caregivers