Children's Hospital of Orange County
Best Evidence and Recommendations (BEaR)

Clinical and Educational Support for Night and Weekend Shifts in Acute Care Areas
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Abstract

Nursing is an around-the-clock profession where the dynamics of the night shift pose unique challenges. Night nurses are engaged in fewer patient admissions, discharges, and transfers but must remain vigilant for emergencies, often with fewer resources and support staff. With many services such as administrative, diagnostic, and specialist consultations operating on restricted hours, night shift nurses are frequently required to make independent decisions in critical situations. The burden is heavier for less experienced nurses, who are often disproportionately assigned to the night shift. This situation is complicated by the adverse effects of sleep disruption and the health risks associated with working night hours. Moreover, night shift nurses often miss out on hospital activities and educational opportunities scheduled during the day, hindering their professional growth and support.

This nurse-led project examines the current literature to synthesize best practices in providing clinical and educational support to nurses during night and weekend shifts. It identifies the necessity for both short-term interventions to promote professional development and the implementation of a dedicated clinical support role for these shifts. Outcomes will be measured through changes in staff engagement, quality of care, patient satisfaction, and safety events. The aim is to enhance the performance and decision-making capabilities of night nurses, thereby ensuring the delivery of consistent, high-quality care across all hours.

Keywords

Clinical support and education; night shift; weekend shift; alternative work schedule; associate satisfaction; patient outcomes

PICO(T)

In the acute care setting, what are the best practices for clinical and educational support on night and weekend shifts compared to current practices to impact associate satisfaction and clinical outcomes?

Background and Significance

Nursing is a profession that operates 24/7. At night, the pace of patient admissions, discharges, and transfers might slow down compared to daytime. However, night nurses must be prepared

for sudden changes and emergencies. They often work with a reduced support staff and must rely on their judgment and skills in critical situations. Night shift nurses typically have less access to resources. Many services, such as administration, diagnostic labs, and some specialist consults, operate on limited hours outside of the regular workday, making it challenging to obtain immediate assistance or information. Night shift nurses often need to make autonomous decisions due to the absence of immediate support from physicians or senior staff. This requires advanced assessment skills and confidence in their clinical decision-making. A significant number of facilities tend to have a higher proportion of less experienced, novice nurses assigned to night shifts in comparison to the more seasoned nurses who work during the day (Becker, 2013; Campbell et al., 2008; Claffey, 2006; Gemberling et al., 2011; Smith, 2010). Additionally, the challenges of working night shifts are exacerbated by sleep disruption, increased fatigue, and the well-documented health risks that are prevalent among staff who work overnight hours (Muecke, 2004; Weaver et al. 2023). Compounding the issue, staff on the night shift often are excluded from a range of hospital activities such as events, meetings, and educational sessions, which are typically scheduled during daytime hours. This creates a significant gap in providing night shift nurses with adequate opportunities for education, clinical support, and career advancement (Campbell et al., 2008; De Cordova et al., 2012; Margetta et al., 2019; Smith, 2010; Weaver et al., 2023). The challenge of supporting nurses is further exacerbated during weekend shifts when the staff must depend mainly on charge nurses and house supervisors for decision-making support and educational guidance (De Cordova et al., 2012). Insufficient support and resources for the night shift are linked to staff dissatisfaction, a decline in the quality of care provided, reduced patient satisfaction, and heightened concerns regarding patient safety. (Becker, 2013; De Cordova et al., 2012). Understanding and addressing these unique nuances are crucial for healthcare administrators to ensure that the quality of care is consistent around the clock and that night shift nurses are supported in their critical roles.

This nurse-led project aimed to critically analyze and synthesize best practices for providing clinical and educational support for night and weekend shifts in the acute care areas. Evaluation and Outcomes: The literature recommends short-term programs to boost professional development and innovative educational tactics to better night shift performance. Additionally, a sustained approach would involve establishing a specialized role for clinical support during night and weekend shifts. The effectiveness of these strategies should be evaluated by reviewing changes in staff engagement levels, quality metrics, safety incident reports, and patient feedback surveys.

At the Children's Hospital of Orange County (CHOC), a significant 56% of the night shift workforce in non-oncology acute care units are novice nurses with under two years of professional experience. This demographic, representing more than half of the staff working after hours, faces the challenge of fewer resources and educational opportunities compared to their day shift counterparts. The two-year cut off was chosen to align with Benner's model of skill acquisition, which posits that nurses require 2-3 years of active nursing practice to reach a

level of competence, confidence, and ease with the myriad tasks and skills essential for safe nursing practice.

When examining the distribution of resources across departments, there's a stark contrast between the day and night shifts. During the day, an abundance of resources is at the staff's disposal, including a day manager, educator, clinical nurse specialist for all units, and additional specialized roles such as Trauma Code Nurse, Labor and Delivery Nurses, and Pull and Flex RNs who work a mid-shift from noon to midnight. There are also SWOT RNs, iSTEPP rounding, pain management team, and resuscitation education available. Conversely, night shift resources are limited. While some Pull and Flex RNs, Trauma Code Nurses, and Labor and Delivery Nurses are available, the overall reduced support necessitates that night staff possess a greater depth of knowledge and enhanced critical thinking and problem-solving abilities to navigate the challenges that arise during the night.

Currently, leadership presence on night shift is limited to night shift managers or assistant clinical managers (ACM) who are responsible for overseeing night operations and providing general staff support. There is no dedicated educational role (educator or CNS/CPS) on night shift for acute care (see Table 1). Resource availability dwindles further on weekends, with neither managers nor ACMs on hand during either day or night shifts. Consequently, staff must depend on charge nurses or house supervisors, especially over the weekend, a time identified as having a higher frequency of medication administration errors (Hughes, 2016). The goal of literature search was to actively explore ways to bridge this gap and enhance educational support for night and weekend teams to ensure continuous professional growth and improve patient care outcomes.

Table 1. Night Resources Available Per Department at CHOC

UNIT	DAY MANAGER	NIGHT MANAGER	ACM	DAY EDUCATOR	NIGHT EDUCATOR	NIGHT RESOURCE	CLINICAL NURSE SPECIALIST	ADDITONAL RESOURCES
MEDICAL (47 BEDS)	X	X		X			X	Pull RN (1300-0130)
SURGICAL (34 BEDS)	X		X	X			X	Flex RN (1200-0030)
NSU (24 BEDS)	X		X	X			X	Pull RN (1300-0130)
MSU (23 BEDS)	X		X	X			X	Pull RN (1300-0130)
ONCOLOGY (28 BEDS)	X		X	X			X	
PICU (30 BEDS)	X		X	X		*TCN	X	
CVICU (12 BEDS)	X		X	X			X	
NICU (75 BEDS)	X	X	XX	X	X	L&D RN	XX	

Framework

This EBP project utilizes the "Translating Evidence into Practice: CHOC's Approach to EBP" model, adapted from the EBPI Model © 2007 Brown & Ecoff (Ecoff, Stichler & Davidson, 2020).

Search for the Evidence

Databases searched for this review included CINAHL, PubMed, and Google Scholar. Key search words*:* support and education; night shift; weekend shift; alternative work schedule; clinical; associate satisfaction; patient outcomes. This search yielded 28 articles*.*

Critical Appraisal and Synthesis of the Evidence

General

- In the literature, there is a unilateral focus of education on day shift.
- Night shift has minimal access to educational offerings and the limited availability of offerings on day shift contribute to the associates' disruption of sleep, affect familial and personal commitments, and require an additional commute on a day off (De Cordova et al., 2012; Margetta et al.; 2019, Smith, 2010; Weaver et al., 2023).
- Newer novice nurses often comprise of large portion of night shift staff. These nurses are still learning with less resources available. It is important to foster educational and professional growth at the start of a new nurse's career, which is not consistently available on night shift (Becker, 2013; Campbell et al., 2008; Claffey, 2006; Gemberling et al., 2011; Smith, 2010).
- There is poor communication on night shift since meetings are held during the day, and the nurse manager is not always present during night shift. There is often inaccurate or unengaging information sharing due to time difference between shift workers and leadership team (Campbell et al., 2008; Weaver et al., 2023).
- The primary source for knowledge of the patient is found in shift reports or physician notes since patient rounding within acute care happens exclusively during the day (Weaver et al., 2023).
- The knowledge gap on night shift is attributed to less resources and support staff. The lack of clinical resources available contributes to the knowledge gap in decision making and escalating appropriately (Campbell et al., 2008).
- Weaver et al. (2023) especially highlighted that there is a need for increased educational opportunities on night shift because night nurses may be less adept at detecting changes in patient conditions due to the inability to attend classes.
- Night shift nurses found that their shift allows for more error and accident, thus decreasing the quality of service provided to patients (Alsharari et al., 2021; Ayed, Thulth & Sayej, 2015; De Cordova et al., 2012).Night shift workers feel devalued and disengaged due to the focus of educational and professional opportunities offered on day shift, leading to lower

levels of commitment and overall reduced job satisfaction (Smith, 2010; Weaver et al., 2023)

- A survey by Becker (2013) revealed that 90% of night shift staff felt little to no support.

Practices and Policies of Other Institutions and Organizations

- Children's Hospital of Los Angeles (S. Cagl, personal interview)
  o Manager: 8 hours day shift focus on staffing and productivity
  o Assistant clinical manager: 8 hours day shift focus on staffing and productivity
  o 12-hour day shift supervisor: staff evaluations, audits, direct follow up with shifts, 1 charge shift a week
  o 12-hour night shift supervisor: staff evaluations, audits, direct follow up with shifts, 1 charge shift a week
  o Educator
  o Clinical practice leader: 8-hour day shift variable
- Rady Children's Hospital (M. Mills, personal interview)
  o Manager: 8 hours day shift focus on staffing and productivity
  o Assistant clinical manager: 8 hours day shift focus on staffing and productivity
  o 12-hour day shift supervisor: staff evaluations, audits, direct follow up with shifts, 3 charge nurse shifts a pay period
  o 12-hour night shift supervisor: staff evaluations, audits, direct follow up with shifts, 3 charge nurse shifts a pay period
  o Educator: 8-hour day shift
  o Clinical nurse specialist: 8-hour day shift variable

Clinical Exemplars

Fostering Professional Growth

- Banner Good Samaritan Medical Center performed an annual needs assessment and provided monthly offerings which varied from open forum to unit-based events on night shift lasting 30 minutes (Smith, 2010).
- Atlanta VA hospital created a "peer-to-peer night educational committee that partnered with leadership to create monthly classes on two topics as well as mandatory review classes (Flagg & Sparks, 2003).
- Becker (2013) discussed implementation of a night shift communication committee to ensure equal dissemination of information.
- Creating a structured group made of night shift staff to identify night shift specific issues and improve practice (Claffey, 2006; Weaver et al., 2023).

Innovative Teaching Strategies

- Van Ryan and Schellbach (2019) created a mobile education cart that went through different units with a new topic every month. This cart was convenient and interactive, allowing for nurse engagement and active learning.
- Margetta et al. (2019) reviewed an informal education series called Coffee Talk on night shift, allowing it to be more accessible.
- Facilitating interactive learning with computer technology, potentially finding a more interactive platform to create a more meaningful and engaging learning experience (Mayes & Schott-Baer, 2010).
- Gemberling et al. (2011) discussed the creation of a clinical resource specialist (CRS) as a clinical support, mentor, and coach for staff to facilitate care by utilizing evidence-based practice. The CRS worked with the leadership team and provided global education to staff on night shifts, while encouraging staff to participate in professional development. After two years of implementation, a survey found that the CRS role was highly valued by the staff and aided the transition of new graduate RNs.
- A case study implemented a night shift CNS. The night shift CNS provided policy and procedures education, assisted with high-risk medications and blood administrations, provided in-service to night shift staff, reviewed nursing practice (such as safety events), and provided clinical assistance. This resulted in a bridge of night shift gaps, decreased feelings of isolation, increased communication of practice issues, increased information sharing and increased the culture of safety (Fischer-Cartlidge et al., 2011).
- An educator with dedicated hours of 8PM -430 AM found that reliance on self-learning was not a substitute for a visible and interactive educational program, and was highly rated by staff (Staring, 1995).
- A case study done by Becker (2013) on implementing a night shift CNS. The night shift CNS responded in real time to provide clinical assistance and education at the moment, helped with point of care, assisted with RRT, codes and traumas. The CNS added experience and clinical skills to general staffing by providing education and direction within the clinical setting and maintaining a unique level of direct patient care. This resulted in:
  - 86% of night shift reported being very satisfied with new resource
  - More than 280 new educational opportunities were conducted on night shift
  - Nursing competencies and recertifications were instituted on nights as regularly as they are offered during dayshift, enabling more than 150 nurses annually to meet hospital requirements without additional effort or cost
  - Medication errors decreased from 994 to 609
  - The night shift CNS responded to 180 clinical assistance calls and more than 160 nursing consults
  - Identification of critical or declining patients and facilitating necessary care or transfers earlier on night shift led to a hospital-wide 24-hour help team
  - Team responses were 24 times greater than before implementation of night shift CNS
  - This hospital saw a 260% increase in early intervention throughout the hospital

- Floor codes were reduced to 1 for every 17 CNS interventions with a decreasing trend of 3% annually (Becker, 2013).

Practice Recommendations

Short Term

- Optimize night shift team building (Ayed, Thulth & Sayej, 2015)
- Create a night shift clinical practice council (Alsharari, et al., 2021; Fischer-Carlidge, et el., 2020; McCarthy, 2004 & Muecke, 2004)
- Engage nurses who would like to participate in clinical ladder to promote clinical leadership at the bedside
- Provide mobilized education (Smith, 2010; Staring, 1995)
- Ensure appropriate timing of education (Smith, 2010; Staring, 1995)
- Facilitate interactive learning with computer technology (Margretta, Dennis & McLaughlin, 2019)

Long Term

- Create a dedicated night/weekend clinical resource position [8,13,16-19]
  - This resource would understand the unique challenges of these shifts, assess educational needs and topics of interest, provide mentorship and clinical support, and improve communication and information sharing. Having a dedicated night resource would provide a different perspective and bridge the gap from day to night shift, minimizing night shift feelings of isolation and improving communication + information sharing.

Next Steps

- Partner with Magnet Facilitator to create a night shift clinical practice council to support their unique needs.
- Partner with Clinical Education and Professional Development to implement teaching strategies that will best reach the night shift and improve communication.
- Develop an assessment tool to identify staff's specific educational needs of night shift and continue to assess quarterly.
- Conduct pre/post surveys for education sessions offered to identify strengths and areas for improvement.
- Gather baseline data through Nursing Safety Indicators, NRC picker questions, discharge calls, Feedtrail, and serious safety reports specific to nights and weekends to identify gaps in patient outcomes specific to CHOC.
- Utilize results from past and future Associate Engagement Surveys and night shift turnover rates to compare levels of associate satisfaction.

Outcome Measures

Measuring outcomes involving associate satisfaction and engagement would involve the following:
- Monitor the turnover rates on night shift
- Monitor overtime cost and staffing patterns
- Compare results from past and future Associate Engagement Surveys
- Create custom pre/post surveys with each intervention. This could be done by reviewing the literature and adopting surveys from institutions that have been successful with implementation
- Assess night shift representation in professional governance
- Track number of night shift staff participating in clinical ladder vs. percent eligible

Patient outcomes measures include:
- Quality indicators
  - Nursing Sensitive Indicators
  - Resource Utilization
- Safety events
  - Number of Rapid Responses
  - Late transfers
  - Serious safety reports specific to nights or weekends
  - Timely response to emergencies
- Patient surveys
  - National Research Corporation Picker questions
  - Discharge calls
  - Feedtrail

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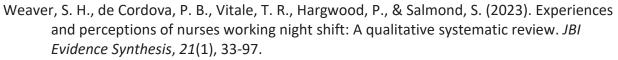
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