# NURSES' PERCEPTIONS OF OPEN VISITING HOURS IN THE ADULT INTENSIVE CARE UNIT: AN INTEGRATIVE REVIEW

A Major Paper Presented

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# NURSES' PERCEPTIONS OF OPEN VISITNG POLICY IN THE ADULT INTENSIVE CARE UNIT: AN INTEGRATIVE REVIEW

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## Abstract

The Intensive care unit (ICU) can undoubtedly be overwhelming and stressful at times. Open visitation has many demonstrated benefits for the patient and the family but can also have disadvantages. Nurses, who are a central element in the care of the critical patient, can be greatly affected by visitation. This integrative review explored nurses' perceptions of open visitation as well as visitation policies of ICUs across the nation. Beneficial effects of open visitation include enhanced teaching, improved communication, reduced anxiety, and physiologic benefits. Barriers of open visitation include hindrance in the delivery of care, physiological concerns, creating additional workload, and privacy. A literature search was completed utilizing CINHAL, PubMed, and Medline databases. The PRISMA flowchart was used to depict the articles that were included or excluded, with 11 articles ultimately used. The framework utilized for the integrative review was the AACN's Synergy Model for Patient Care, which guides quality nursing practice with a focus on the critical care arena. Utilizing Polit and Beck's Tenth Edition Guide to an Overall Critique of Quantitative Research Report and Guide to an Overall Critique of Qualitative Research Report, the articles were critiqued. A cross study data table was used to examine similarities and differences across the articles. Overall, the integrative review supported open visitation as being beneficial for patients and families as well as being aligned with family/patient preferences. Nurses had mixed feelings regarding optimal visitation times and schedules; while they appreciated the benefits of family presence, they did have some apprehension about unrestricted visitation. Recommendations for practice include movement towards a patient and family centered care environment and overall support for open visitation.

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# Nurses' Perceptions of Open Visiting Policy in the Adult Intensive Care Unit: An Integrative Review

## Background/Statement of the Problem

Although much research has been conducted on the matter of visitation in the Intensive Care Unit (ICU), determining appropriate visiting hours is a challenge (Sims & Miracle, 2006). While numerous studies and articles exploring the topic have been completed there remains no clear-cut solution. The issue is multi-factorial in nature, as balancing the needs of the patient, family, and nurse can be complex. Intensive care unit admissions and critical illness can have an overwhelming impact on both the patient as well as their family (Liu, Read, Scruth, & Cheng, 2013). Physiological, mental, and emotional disruptions are inevitably potentiated within the ICU setting.

Unrestricted visiting hours may present a barrier for the nurse in providing optimal patient care and may create additional stressors. Chapman et al. (2016) cited staff workload, patient privacy, patient and staff safety, and adverse changes in patients' physiology as concerns associated with open visitation. However, family members' presence has been shown to be beneficial in a variety of ways, such as providing comfort and pertinent information when a patient is unable to provide a comprehensive history independently due to intubation or impaired mental status (American Association of Critical Care Nurses [AACN], 2012). In fact, the Joint Commission (TJC) recommends family support during hospitalization. The American Institutes for Research (AIR) led a team of organizations, including TJC, in developing a *Guide to Patient and Family Engagement in Hospital Quality and Safety* (American Institutes for Research, 2013). The handbook is a tested, evidence-based resource that aids hospitals in collaborating

with patients and families around four detailed strategies that are intended to foster improvement in care: (a) encourage patients and family members to participate as advisors; (b) promote better communication among patients, family members, and health care professionals from the point of admission; (c) implement safe continuity of care by keeping the patient and family informed through nurse bedside change-of-shift reports; (d) engage patients and families in discharge planning throughout the hospital stay (AIR, 2013).

Understanding the historical context for the conceptualization of visiting policies is important. Dating back to the late 1800's, visiting hours were implemented for non-paying patients in attempt to maintain structure in the general ward while paying patients were free to have visitors in their private/semi- private room (Berwick & Kotagal, 2004). This trend continued for several decades. By the time ICUs were being opened in the late 1960's, hospitals had begun implementing restrictions on visiting hours in both the ICU as well as the general medical wards for both paying and non-paying patients to reduce patient fatigue secondary to an excess of visitors (Berwick & Kotagal). These restrictions were created without regard for or knowledge of the effects visitation had on both patients and families. By the late 1980's and early 1990's, although published articles had emerged in support of open or less stringent visitation in critical care, most units had restrictions on the number and age of visitors allowed as well as frequency and duration (Cullen, Titler, & Drahozal, 1999). A 2013 by study by Liu et al. which surveyed 606 hospitals throughout the US showed that majority of ICUs still practiced restricted visitation policies, with restrictions commonly surrounding visiting hours, number of visitors, and age of visitors (2013).

Despite encouragement for hospitals to implement open visitation within the ICUs from the Institute for Healthcare Improvement (IHI) in 2004, specifically led by Donald Berwick, MD and former IHI president and CEO, restricted visiting hours can still be found across the country in many institutions. A 2012 American Association of Critical-Care Nurses' (AACN) Practice Alert discussed the controversial topic of family visitation in the adult ICU. Per this document, family members clearly benefit from unrestricted visiting hours as evidenced by reports of a better understanding of the patient, increased satisfaction, and decreased anxiety. While the majority of nurses were identified as preferring unrestricted visitation, they continue to identify many perceived barriers surrounding family visitation including increased infection, increased physiological stress in the patient, and interference with care (AACN, 2012).

Therefore, the purpose of this project was to conduct an integrative review related to ICU nurses' perceptions of open visiting policy and its' impact on patient care. Next, the review of the literature will be presented.

## Literature Review

A comprehensive literature search was conducted utilizing the databases PubMed, Medline and the Cumulative Index to Nursing and Allied Health (CINAHL). The keywords utilized for the search included ICU visitation, ICU visitation United States, open visitation, flexible visitation, and the collection of terms nurses' attitude beliefs visitation. The topics that will be discussed in the literature review are visitation policies in United States (U.S.) ICUs, and nurses' perceptions of family as a barrier and family as beneficial.

### Visitation Policy in US

In 2004, a challenge issued by the IHI urged hospitals to reform to unrestrictive open visiting policies. The challenge was issued to hospitals that were enrolled in the critical care setting domain of IHI IMPACT network. IMPACT is a group of health care organizations promoting change-oriented initiatives to gain strides in quality healthcare. According to the IHI, however, many hospitals have not implemented such policies (Hart, Hardin, Townsend, Ramsey, & Mahrle-Henson, 2013). A survey conducted by AACN showed only 14% of adult ICUs had open visitation without any time restrictions, 44% of units having open visitation per schedule, and 31% with open visitation except during rounds and change of shift (Sims & Miracle, 2006). Institute for Healthcare Improvement project manager for critical care Valerie Johnson, believes staff resistance is the most common barrier to open visitation in ICUs (Institute for Healthcare Improvement, 2018).

Liu et al. (2013) acknowledged wide variability exists regarding visitation policies, the nurses' knowledge of such policies, and how those policies are being implemented. Restrictions within policies may vary greatly, as some may have specific time frames for visitation, while some limit the amount of time family members can visit, or even determine which friends and family members may visit (Liu et al.). In a 2005 quality improvement project regarding perceptions of nurses regarding visiting hours (Livesay, Gilliam, Mokracek, Sebastian, & Hickey, 2005), nurses were asked the specific question "What is your understanding of open visiting hours?" as part of a nine-question survey. Twenty-two RNs working within a 10-bed neurological ICU in St. Luke's Episcopal Hospital in Houston Texas responded. Nurses indicated the term "open visiting hours" may really mean open to staff interpretation, with answers such as "flexible and patient specific" and "open to visit with the patient at any and all times". Rules applying to open visitation also varied from staff member to staff member. Some nurses stated they would limit visitors to two at a time, and other nurses indicated they placed time limitations on visits per their discretion. Several nurses stated the family could not stay overnight, however they could visit freely (Livesay et al.)

In 2006, a group of randomly selected facilities within the US were surveyed by the AACN regarding information on operations, evaluations, nursing staff, reimbursement and incentives, staffing, and quality indicators. Kirchoff and Dahl (2006) summarized the results, which offered important information on critical care practices. Facilities that responded gave contact information for specific units in their institutions, which were then surveyed regarding a variety of information including staffing, acuity, and policies on visitation. Respondents were asked what their unit's visitation policy was and given

three options to select for response and an additional option to write in a response. The designated options were: scheduled visitation only, open except for rounds and/or changes in shift report, and open at all times. Results showed a large variation in policy by unit size and type. Out of 118 ICUs, most (44%) ICUs were open on a scheduled basis only. Intensive Care Units also frequently (31%) were open, with the exception of rounds or change in shift and fourteen percent were open at all times (Kirchhoff & Dahl).

Lee et al. (2007) conducted a two-part study in six New England states consisting of a survey to determine the visiting hours policies of the regions' hospital ICUs. This was followed by focus groups to identify barriers experienced by nurses within an ICU with open visiting hours. The survey was completed by nurses from 195 ICUs within 177 hospitals which were located throughout the New England states. Only 62 (32%) off all the ICUs surveyed had open visiting hours. Of the five trauma ICUs surveyed, only one (20%) had open visitation. Of 20 surgical ICUs, only four (20%) had open visitation. Most units had restrictions on both age and number of visitors. Sixty-five (57%) of those units had an age requirement of greater than12. One hundred sixty-six (85%) ICUs restricted the number of visitors at any given time and 151 (91%) limited their visitors to two at a time. The 62 (32%) units that had open visitation did, however, have restrictions on age and number of visitors; 23 (37%) had an age restriction, 40 (65%) had restrictions on number of visitors, and 31 (78%) had a maximum of two visitors at a time (Lee et al.).

Between 2008 and 2009, Liu et al. (2013) conducted a research study exploring visitation policies and practices in the U.S. The authors noted that data were limited regarding the scope and variability of ICU visitation policies and practices as well as the hospital factors that impacted them. A telephone survey was completed that involved 606

hospitals in the Northeast, Midwest, South and West; the purpose was to describe the makeup of ICU visiting policies. A 17-question survey was completed by each participating hospital, establishing the number of ICU beds and the presence of leadership such as medical director or clinical nurse specialist within the units. Visitation policies of each hospital were then assessed for restrictions in any of the five areas: visiting hours; visit duration; number of visitors; age of visitors; and membership in the patient's immediate family.

While results showed the majority of hospitals (n=463; 76.4%) and ICUs (n=543; 89.6%) had restrictive visiting policies, most also allowed exceptions to those restrictions (n= 474; 94.8%). Three or more restrictions were found within most ICUs (n=375; 61.9%), most frequently related to visiting hours (n=487; 80.4%), followed by the number (n=-408; 67;.3%) and age of visitors (n=387; 63.9%). Although few hospitals had open visiting policies, they were found more often in smaller hospitals with less than 150 beds as opposed to larger facilities (16.8% vs. 5.1%; $\chi 2$ $p < 0.00$). Results showed hospitals in the Midwest region had the most liberal policies. Within the surveyed hospitals, it was evidenced that the most documented policies restricted ICU visitation. However, there was great irregularity in the number of restrictions present and no substantial correlation with hospital size, type, number of critical care units, or presence of ICU medical director or clinical nurse specialist. Overall, broad variations in the ICU visitation policies throughout the surveyed hospitals across the nation were evident (Liu et al.).

## Family as a Barrier

Open visitation has quite frequently been seen as an interference in the delivery of patient care from the nurses' perspective (Hart et al., 2013). Strenuous assignments paired with possible interruptions from family can easily create a stressful environment for critical care nurses. Family members visiting freely adds another element to their workload that nurses must attend to on some level. Nurses' personal stress combined with a stressed family member can lead to poor communication and dissatisfaction of the family surrounding visitation policies in particular (Hart et al.). Nurses are also concerned about the possible deleterious effects visitation may have on these patients (Sims & Miracle, 2006). Hindrance in the delivery of care, physiologic concerns, reduced rest, safety concerns, creating additional workload, and privacy issues are specific concerns identified in the literature that will be discussed.

**Hindrance in the Delivery of Care.** Numerous perceived barriers to flexible family visitation in the ICU have been identified, perhaps the most obvious barrier being interruptions or hinderance in the delivery of care (Chapman, et al., 2016; Hart et al., 2013; Kozub, Scheler, Necoechea, & O'Byrne, 2017; Lee et al., 2007; Nuss, et al., 2004; Riley,White, Graham, & Alexandrov, 2014). In 2013, Hart et al. conducted a descriptive correlational study exploring satisfaction of critical care patients' families and nurses with visitation guidelines in a southeastern United States 435 bed hospital. Seventy-two responding nurses identified reasons visitation was detrimental to patients. These fell into four categories: poor physiological outcomes; psychological stress; family dynamics; and hindrance to delivery of care. Specific examples nurses cited as a hindrance to delivery of care included visitors may be in the way and could touch or disrupt equipment and

prevent the nurse from accessing patient to perform care such as giving medications or blood draws. Also, visitors may refuse to leave the room and disrupt treatments/procedures and could hinder patient care in emergency situations (Hart et al.).

A survey of staff nurses was conducted by Livesay et al. (2005) at Saint Luke's Episcopal Hospital. Nurses were asked under what circumstances they felt the need to ask the family to leave. Although individual responses varied, a common theme was noted. Most nurses stated they asked the family to leave the room during procedures such as blood draws and oral/ endotracheal suctioning. A few nurses indicated family should leave during codes, sterile procedures, and other nurse perceived emergencies. Several nurses felt the family should decide if they would like to leave or stay in the room after receiving a description of the proposed procedure. Nurses also communicated to families that calling the unit prior to visitation may be helpful as this enables the nurse to prepare for the visit and delegate time to spend with the visitor and develop a relationship with them (Livesay et al.).

As part of a mixed method two-part study consisting of a survey and a focus group, Lee et al. (2007) studied challenges and barriers experienced by nurses working in an open ICU in New England. The survey determined the visiting hours of the hospitals and the focus group was completed with the intent of developing solutions in order to facilitate an open visiting policy. The survey was completed by 171 hospitals and showed only 62 (32%) had open visitation while the remaining 68% (133) did not? Through the focus group, the authors identified that nurses perceived the family as a physical barrier and often had to request approval to reach the patient. While the family might not view themselves as a hindrance, nurses believed they did impede on their patient care.

Additionally, nurses felt asking families to leave the bedside and subsequently managing their emotional response increased their stress levels (Lee et al.).

Chapman et al. (2016) surveyed visiting family members and nurses in a 24 bed ICU before and after an implementation of a change in the visitation policy. The purpose was to determine if changing from minimally restrictive visitation to unrestricted visitation would improve patients' families' satisfaction and if the change would affect nurses' satisfaction or the nurses' perception of the family members' satisfaction. Visitation hours were changed from closed during shift report for three hours daily to open all the time (depending on patient's status and preference). Eighty-three nurses worked in the study ICU during the pre-change period and 61 responded to the pre-change survey; 67 nurses responded to the post-change survey out of 87 nurses. Nurses' responses were identified and categorized into three areas; family interference, defined as nurses' feeling visitors interfered with time spent providing patient care (32.4%); perceived visitor status (18.3%); and keeping visitors informed (9.3%). The three areas accounted for 59.98% of the total variance. For family interference, a Cronbach alpha of 0.81 was produced and did not significantly change when comparing scores before and after the change with t tests (3.34 vs. 3.35; $p = .94$). The perception that families were interfering with patient care was more common amongst nurses with 15-20 years of nursing experience as compared to nurses of all other years of experience (2.10 vs. 3.2; $p < .001$). Worse perception of family interference was indicated by a lower score (Chapman et al.)

**Physiologic Concern**s. In their literature review, Sims & Miracle (2006) found that the belief that visitation could be physiologically harmful to the patient was a common perceived barrier to flexible visitation. Specific physiologic concerns associated with

family visitation noted in the literature included fluctuation in intracranial pressure (ICP) and an increase in blood pressure and heart rate (Livesay et al., 2007; Sims & Miracle, 2006). It is important to note that limited research has been conducted in this area, some of which is acknowledged as dated.

As part of a quality improvement project conducted in a 10-bed neuro-ICU at Saint Luke's Hospital in Texas to determine possible effects of open visitation, 26 nurses were asked what their personal experience regarding limited visiting was. Some responses were that nurses felt patients with increased ICP or who are experiencing cerebral vasospam need decreased stimuli and increased rest. Another comment was that family may produce increased stimuli and impede on patient rest with continuous talking (Livesay et al., 2007).

In a 1994 study by Hepworth, Hendrickson and Lopez, the authors conducted an interrupted and concomitant time series analysis assessing effects of visitation on heart rate and blood pressure. Fifteen patients in a neurosurgical ICU receiving continuous blood pressure and heart monitoring, with no continuous infusions of medications that would cause cardiovascular changes, and who had at least one family member there during visitation period, were studied. Both the patient and one family member agreed to participate. At one-minute intervals, for a total of 90 minutes (30 minutes before, during, and after the visit), data were recorded. Interrupted time series analysis and concomitant time series analysis models were created for systolic and diastolic blood pressure and for heart rate. Three significant effects on systolic blood pressure were found, with two decreases and one increase. Three significant effects on diastolic blood pressure were found, represented by two decreases and one increase, and four significant increases on

heart rate were found. T tests further showed no significant changes except for the increase ($t$ ([14]) = 2, 17; p = 0.5) in heart rate. While it was noted the interpretation was complex as no consistent model seemed to fit all subjects, the authors concluded family presence had a negative effect on blood pressure and an increase in heart rate in this study. However, it was also noted that the significant effects on the individual level were a reasonably low magnitude and overall group effects were small also.

Within the descriptive correlational study by Hart et al. (2013), nurses were asked to complete a questionnaire on their perspective of critical care visiting hours, and they identified poor physiological outcomes as a reason visitation was detrimental to patients. Specific reasons stated by nurses were: visitation may cause too much stimulation for some patients, such as those with neurological issues, additional stress for the patient, impede on rest, and result in agitation causing an increase in vital signs. Regarding the concern of increased risk of infection, Hart et al. acknowledged that while environmental contamination was increased in units with open visitation, the incidence of sepsis did not proportionally increase.

In a quality improvement project by Livesay et al. (2005), the authors investigated nurses' concerns and perspectives with open visitation. Eighteen (72%) out of 25 responding nurses stated visits had both a negative and positive effect on the patient. Only five responding nurses felt family visitation had a positive effect on the patient. All the nurses agreed the effects from visitors depended on their diagnosis as well as mental status. Nurses believed family members who agitated or aggravated the patient demonstrated the negative effects of visitation. Family visits causing negative physiologic responses such as increased, BP, and ICP were suggested by several nurses.

Two respondents were concerned that visitation might have a negative effect on both family as well as patients and ultimately result in heightened anxiety for the patient and family (Livesay et al.).

**Reduced Rest.** In addition to the previously discussed physiologic concerns, reduced patient rest has been discussed as a nurse perceived barrier to open visitation (Livesay et al., 2005). Family members' failure to recognize patients' need for recovery may contribute to interference with sleep (Lee et al., 2007). However, it is important to note the literature review surrounding reduced rest is overwhelmingly based on nurse opinion.

In a 2013 descriptive correlational study, Hart et al. provided family and nurses a questionnaire on their perspective of critical care visiting hours within five units in a hospital within southeastern US. Nurses identified various reasons that visitation was detrimental to patients, which fell into four categories: poor physiologic outcomes; psychological stress; hindrance to delivery of care; and family dynamics. Comments made regarding disruption of rest under the poor physiologic outcomes included "visits so long the patient cannot rest" and "patient unable to rest".

A qualitative study on patients', family members', nurses', and physicians' perspectives on traditional/restrictive visitation was conducted in five ICUs in a southeastern academic hospital. Nurses expressed it was appropriate to instruct family members about their conduct during the visit. Nurses were concerned family visitation would interfere with patient rest. One specific example provided stated "Let's have a quiet visit. I know that you want to visit with her, but this may be an appropriate time to

just hold their hands, and just accept the fact that they're gonna sleep, and I would appreciate it if you would just let them sleep" (Riley et al., 2014).

**Safety Concerns**. Some healthcare providers perceive open visitation as a contributing factor to an unsafe environment (Nuss et al., 2014). Staff safety is also a concern in some ICUs. Lee et al. (2007) identified the possibility of physical or emotional assaults from difficult visitors. Family members may also become unruly or refuse to leave the bedside when asked by the nurse. If they are continuously at the hospital they may become over-tired, which could affect their ability to make decisions, participate in the plan of care, and to deal with the stress of having a critically ill family member in general. The nurse may feel their safety is threatened in the face of disruptive or aggressive family members and proposed resources should be available to deal with those situations, as staff intervention and occasionally security may be needed for unruly visitors (Livesay et al., 2005).

Safety was a common concern addressed by Kozub et al. (2017) after expanding visitation to 24 hours within the surgical ICU at Sharp Memorial Hospital in San Diego, California. Family interruptions during high risk periods such as shift handoff and medication titration at the intravenous pump have the potential to increase patient safety events. To address specific safety concerns with open family visitation, including environmental issues such as overcrowding in the patient room and family members in the hallway, staff guidelines were implemented. Having a goal of three visitors at a time in a patient room was an implemented guideline. This was expressed by the nurse using the scripting prompt "For safety purposes we ask for three people in the room at a time to allow us to safely take care of your family member" (p. 148). Another staff guideline was

that families should not congregate in the hallway for extended time periods; this was expressed with prompts asking the family members to either stay in the patients' room or the waiting room to ensure patient privacy as well as safety during transport (Kozub et al.). The implemented staff guidelines for family visitation proved successful in moving towards Patient and Family Centered Care within the ICU. After utilizing the scripting prompts as well as enforcing visitation guidelines, nurses' overall mean stress level associated with PFCC was decreased as well as the nurses' perceptions of difficulty in reducing patient and/or family anxiety. The number of nurses that reported difficulty reducing patient or family anxiety was 37% pre-intervention and 21% post intervention ($p = .137$). Nurses' self- assessment of having the skills to manage conflict with patient and families increased post-intervention to 90% from 73% pre-intervention ($p = .072$).

**Creating Additional Workload**. Time spent tending to families may create additional workload for the nurse and may reduce patient care time. Within the two-part New England study conducted by Lee et. al. (2007), nurses identified challenges they faced in an ICU with open visitation, space, communication and conflict, and burden through focus groups. While families reported they did not feel as though they needed the nurse with them at the bedside, nurses felt obligated to provide care for not only the patient but the family as well. Nurses also felt burdened by answering questions and providing overnight amenities and food to families. Families who continued to stay at the bedside overnight as opposed to going home to sleep provided further disruptions to the nurse. Nurses also expressed they believed some family members may feel obligated to stay at the bedside when there are no set visiting hours. Lee et al. acknowledged further studies are necessary to determine if there is a relationship between the two.

Nurses recognized the need to care for both the patient and the family as another challenge associated with open visitation (Kozub et al., 2017). In attempt to balance the physical care of the patient, along with emotional needs of both the patient and family, nurses often report feeling burdened (Lee, et. al., 2007; Kozub et al., 2017). After implementing 24-hour family visitation, nurses within a surgical ICU believed they were unable to adapt the visitation to meet the patients' condition (Kozub et al.). Specific staff guidelines for family visitation were put into effect as part of a performance project intended to improve nurse satisfaction surrounding open visitation. Many nurses expressed that family visitation was looked at as a "free for all" and that they were reluctant to discuss subjects that may be sensitive with the family. Some additional comments made by nurses at baseline or pre-intervention included that while patient-centered care was great, creating consistent and appropriate boundaries for patients and families would lower nurses stress.

A performance improvement project was implemented in order to enhance nurse satisfaction with PFCC as well as maintain uniformity for clinicals concerning visitation practices (Kozub et al., 2017). After implementing scripting prompts and enforcing visitation guidelines meant to enhance the adoption of PFCC within the ICU, the number of nurses reporting difficulty reducing patient or family anxiety was 37% pre-intervention and 21% post intervention ($p = .137$). Nurses' self- assessment of having the skills to manage conflict with patient and families increased post-intervention to 90% from 73% pre-intervention ($p = .072$). Nurses (49%; $n = 17$) also reported reduced difficulty setting boundaries with families; this was reduced to 35% post intervention ($p = .264$). While

most families are reasonable and listen, some require extra reassurance from the resource or charge nurse (Kozub et al.).

**Privacy**. Privacy is another perceived barrier identified in the literature. Lee et al. (2007) identified lack of privacy and compromising confidentiality as nurse perceived barriers to open visitation. As described in their focus group, nurses stated the patients' right to privacy and confidentiality must be maintained irrespective of the visitation policy. Non-private patient rooms may pose a particular challenge as an overnight visitor may be distressing for the other patient in the room and maintaining confidentiality in patient medical information may be problematic (Lee et al.).

After Baylor Health Care System (BHCS) in Dallas, Texas implemented a system-wide approach to open visitation throughout their facilities, data were collected from 13 hospitals regarding utilization of open visitation, awareness of such policies, and staff perceptions (Nuss et al., 2014). A team of two to three leaders met with both unit and council colleagues to talk about concerns regarding the cultural change within the facility. These discussions showed maintenance of patient privacy as well as their own personal liability was the greatest concern of staff associated with open visitation. However, after adopting open visitation, BHCS did not note any significant increases in HIPPA complaints via the ethics hotline or formal submission (Nuss et al.).

## Family as Beneficial

In 2001, the IOM issued a statement indicating the healthcare environment should shift its focus from clinician-centered to patient-centered in effort to deliver quality patient care. Patient and Family Centered Care has been increasingly promoted, as health

care outcomes and patient participation in their health care are improved with patient-centered care (Kozub et al., 2017). Patients and families acting as 'active partners in their care' is a key attribute of PFCC (Kozub et al.). The social aspect provided by family and significant others is an essential element of an individual's health. The presence of both family as well as nursing is required to promote healing (Hart et al., 2013). Ensuring that the needs of family members are met contributes to the achievement of best patient outcomes and flexible visitation in the ICU is fundamental in meeting those needs (Sims & Miracle, 2006). There are many benefits of family visitation that have been identified and studied. The specific benefits that this review will discuss include enhanced teaching, improved communication, reduced anxiety, family satisfaction, and physiologic benefits.

**Enhanced Teaching**. The presence of family may assist in reducing workload and in providing an opportune time for the nurse to conduct necessary teaching (Hart et al., 2013; Sims & Miracle, 2006). Open visitation allows families to become more involved with patient care. Patients are often discharged home or will ultimately be in the care of their families within the home environment. Open visitation allots time for not only teaching but also return demonstrations to be completed. The nurse can support the family member once they have successfully demonstrated the deliverance of the task or skill (Hart et al., 2013).

Kozub et al. (2017) conducted a quality project intent to improve patient and family centered care (PFCC). According to Kozub et al., education is central to PFCC, as informed patients' show improved understanding of self-care instructions, are more likely to abide to their treatment regime, and recognize when to seek medical attention. After expanding visitation to 24 hours as part of a performance improvement project the

number of nurses that stated they had the tools available to educate the patient and their family in a manner that both the could comprehend increased. Pre-implementation, 54% (n = 36) of nurses stated they had the needed tools, compared to 88% (n = 50) post-implementation (p = .001).

**Improved Communication**. Improved communication between healthcare providers and family is supported within an open visitation environment. Family can provide necessary patient history and facilitate information (McAdam & Puntillo, 2013). Riley et al. (2014) conducted focus groups with doctors, nurses, and patients within an ICU. Family members responded that they felt they knew their family member better than anyone and therefore can provide emotional support and be their voice. By watching for indications such as their body language and facial expressions, the families were able to identify the patients' needs and assist or initiate appropriate interventions, such as repositioning. Families also reported feeling panicked if they did not receive health status reports promptly and did not feel equipped to make decisions based on occasional updates. When met with personal queries and provided with an update on their family member's condition, families felt comforted (Riley et al.).

Continuing communication training for nurses can facilitate interactions with family members within the ICU. As part of staff guidelines for family visitation implemented in a performance improvement project (Kozub et al., 2017) nurses utilized scripting prompts included in a visitation guideline in the ICU which had recently expanded to 24- hour visitation. Nurses subsequently described decreased discomfort and difficulty in conversing with patients and families. The scripting prompts could be used as ideas by nurses for prompting difficult conversations. Designating a spokesperson for a patient

facilitates optimal patient care as other family and friends can refer to the spokesperson for information (Kozub et al.).

**Reduced Anxiety**. Reduction of anxiety in the patient is associated with open visitation (Sims & Miracle, 2006). When patients can see their family and friends, they feel more relaxed and less anxious, and they are worry less about their families when they see them more often. Also, nurses may be unable to provide the emotional support and encouragement provided by families that critically ill patients require (Sims & Miracle). Per the AACN Practice Alert (2016), flexible visitation makes patients feel more secure, decreases confusion, anxiety and agitation and increases quality and safety.

In promotion of PFCC, where the environment fosters families being an active part of patient care, a southern California SICU expanded from 16 to 24 beds and opened visitation to 24 hours (Kozub et al., 2017). This was part of a performance improvement project intended to improve nurse satisfaction with family visitation. Initially, nurses expressed a variety of concerns and anxiety surrounding open visitation and dealing with families was one major concern. Thirty-six nurses participated in the pre-implementation survey and 50 nurses completed the post-implementation survey and were asked to rate their stress levels related to PFCC from 1-5 (low stress- high stress). After implementing the guidelines, the mean stress level dropped from 2.5 to 2 ($p=0.091$). Nurses expressed improvement in level of difficulty in reducing both patient and family anxiety after scripting prompts for staff were implemented within the unit. The percentage of nurses reporting believed difficulty in reducing patient or family anxiety also dropped from 37% pre-implementation to 21% post-implementation (Kozub et al.).

**Family Satisfaction**. It has been evidenced that increased family satisfaction is associated with open visitation policy (Sims & Miracle, 2006). Family believe that seeing nursing staff more frequently enables them to obtain more information on their family members' status. Also, family members who have jobs or other obligations may be limited as to when they can visit with restricted visitation and open visitation creates less stress and exhaustion as they may visit at their discretion (Sims & Miracle). Two studies support these findings.

A descriptive correlational study by Hart et al. (2013) surveyed nurses and families within five critical care units in a hospital in Southeastern United States on their perspective of visiting hours. Families requested to have no limit on the number of times they could visit and no restrictions regarding length of time for the visit. One hundred and four family member responses were gathered from a surgical ICU (n = 13), cardiovascular step- down unit (n = 19), coronary care unit (n= 5), progressive CCU (n = 62), and post-ICU (n = 7). Regarding preferred frequency of visitation, the majority of family members (n = 52; 51.48%) wanted no limit while only a small amount indicated they wanted to visit once a day (n = 13; 12.5%), twice a day (n = 14; 13.46%) or three times a day (n = 14; 13.46%). Regarding convenience of visiting hours, the majority (n = 43; 41.34%) of family members selected preferred visitation hours as "all". In response to how long they would like to visit, majority of family members (n = 51; 49.03%) selected "no limit" as their preferred length of visitation.

Chapman et al. (2016) conducted a prospective observational study in a 24- bed ICU within a tertiary hospital to determine family and nurse satisfaction with elimination of visitation restrictions. To establish whether a change from minimally restrictive visitation

hours to a visiting policy with no restrictions improved nurse and family member's satisfaction, the visiting hours were changed. Pre- intervention the ICU was closed three hours daily during shift-to-shift hand off report, and post- intervention visitation was opened at all times, depending upon patient preference and status. Fifty-two family surveys were completed, and measures of satisfaction with visitation hour, time and convenience were significantly higher after implementing unrestricted visitation. A total of 103 family members were surveyed, 50 before the visitation change and 53 after the change, and a total of 128 nurses were surveyed, 61before and 67 after. While nurses' satisfaction was unchanged, both family satisfaction and nurses' interpretations of family satisfaction were improved. Using t tests, the comparison of component scores of family satisfaction before and after the policy change were significantly higher post visitation change (4.41 vs 3.87; $p <= .02$). Nurses' perceptions of family satisfaction were also significantly higher post visitation change, (3.94 vs 3.60; $p = .03$).

**Physiologic Benefits**. Improved physiologic manifestations may also occur with family attendance, including decreased cardiovascular manifestations and ICP. Utilizing a two group, time series, quasi-experimental research design, Schulte et al. (1993) conducted a study to determine the relationship between restricted versus unrestricted visitation on heart rate and ectopy in a coronary care unit (CCU). Patients from two CCUs were divided into two groups, group A (unrestricted visitation) and group B (restricted visitation). Baseline heart rates were obtained for each patient and three additional measurements were taken:1) before visitation; 2) five minutes after arrival of visitors; and 3) one to five minutes after visitors left. Twenty-five visits total, 13 visits in group A and 12 visits in group B were examined. No significant difference between rates

of premature ventricular contractions and premature atrial contractions were found between group A and group B. Over time, significant differences between group A and B ($f(2, 46) = 3.75$; $p = .030$) were found using ANCOVA. Group A patients with unrestricted visitation had significant decreases in heart rate after visits while group B patients with restricted visitation did not experience this change (Schulte et al.).

Hepworth et al. studied the correlation between fluctuations in intracranial pressure and family visitation by reanalyzing data originally produced by Henrickson in 1987. Twenty-four subjects, 13 males and 11 females, with ICP monitoring devices were included. A concomitant time series model was developed to assess family impact and other independent variables such as medications and suctioning on ICP. The independent variable of time was also utilized to monitor ICP trends in the study. Subjects showed nonsignificant estimates; 12 were negative and 6 were positive. Of the parameter estimates for each of the 24 subjects, six were statistically significant ($p < .05$). All six produced negative values, meaning with family presence, a significant reduction in ICP was demonstrated. Of the remaining 18 with non-significant changes, two thirds (12) had a decreased ICP.

The 24 separate findings were then analyzed to address group level results by calculating *t* tests and their calculated *t* values on the parameter estimates. For the family presence variable, the average parameter estimate was negative (-0.87), and statistically significant, ($t(23) = -3.58$; $p = .002$). A t test on the individual t values associated with every parameter estimate were calculated. Results indicated an overall reliable decrease in ICP with an average *t* value of -1.11 which was statistically significant, ($t(23) = -3.98$, $p < .001$) (Hepworth et al.).

Next, the theoretical framework that guided this integrative review will be discussed.

## Theoretical Framework

The AACN Synergy Model for Patient Care (Curley, 2007) is a framework to guide quality nursing practice, with a focus on the critical care arena. It is a pragmatic yet perceptive model with its roots historically entrenched in the practice of nursing; nurses provided care for patients based on their needs that they were unable to meet themselves. Central to the model is the linking of patient qualities with nurse competencies to achieve the best patient outcomes. The specific needs of both patients as well as their families direct and influence the aptitudes of the nurse caring for them. Thus, when the needs of the patient as well as the clinical system are congruent with a nurse's competencies, synergy is achieved (Curley, 2007).

Dr. Martha A.Q. Curley is perhaps the name most often associated with the Synergy Model as she was part of the expert panel credited with its' development. She also wrote the seminal article describing the model in *The American Journal of Critical Care.* Additionally, Curley supported its earliest clinical use in patient care in Boston's Children's Hospital. The model had been continually utilized in varying degrees by progressive healthcare leaders until its first system-wide implementation within Indiana's Clarion Health, a 1200 bed facility in 2001 (Curley, 2007).

The Synergy Models continues to be successfully applied today in a multitude of settings ranging from inpatient to the military and provides sound theoretical backing for nurses' decision making in the critical care setting (Swickard, Swickard, Reimer, Lindell, & Winkelman, 2014). Employing the Synergy Model as framework for this integrative review is appropriate, as developing a visiting policy within the ICU is essentially done

in effort to create an agreeable, balanced relationship between the nurse, patient, and family while maintaining optimal patient outcomes as top priority.

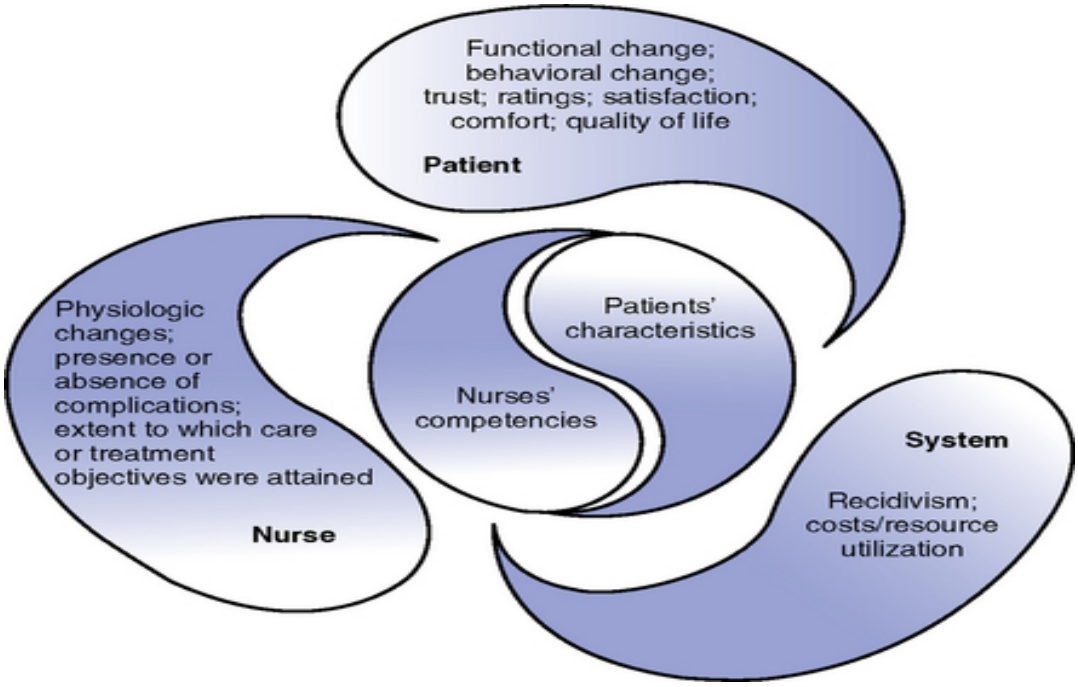


*Figure 1.* The Synergy Model

The model (Figure 1) is comprised of three components, including patient characteristics, nurse characteristics, and outcomes (Curley, 2007). Eight characteristics of patients are identified: resiliency; vulnerability; stability; complexity; resource availability; participation in care; participation in decision making; and predictability. Nurse characteristics include clinical judgment, advocacy and moral agency, caring practices, collaboration, systems thinking, response to diversity, facilitation of learning, and clinical inquiry. The outcomes are divided into three levels. Patient derived outcomes include function, satisfaction, comfort, and other patient-centered foci. Presence or absence of complications, the extent to which care or treatment objectives were attained, and physiological changes are the nurse

derived outcomes. Finally, recidivism and cost/resource utilization comprise the system derived outcomes (Curley).

With the proper application of a well- constructed health care model, virtually all parties involved will benefit. A visiting policy capable of adapting to fit the populations' needs may facilitate achieving some primary objectives of the model including preventing interruptions in care through team collaboration, elimination of variations in care, and improving relationships with families and patients, including satisfaction and involvement (Curley, 2007). The Synergy Model provides us with a unique instrument to evaluate and adapt to the ongoing and changing needs of complex patients within the ICU.

Next, the methodology utilized in this integrative review will be discussed.

# Method

## Purpose

The purpose of this project was to conduct an integrative review related to ICU nurses' perceptions of open visiting policy and its impact on patient care**.** An integrative review was chosen because it allows the inclusion of studies with varied methodologies, including both qualitative and quantitative research, which is appropriate for the given subject matter. Based on separate research findings, integrative reviews can develop a comprehensive understanding of problems within healthcare (Whittemore and Knafl, 2005).

## Inclusion/Exclusion Criteria

Inclusion criteria for the search included adult human subjects aged 19 and over, studies, reviews of literature, integrative reviews, articles published between 1994-2017, and material must be written in the English language. Inclusion criteria also included articles surrounding the topic of visitation within the ICU environment in an in-patient hospital setting and must discuss nurses' perceptions. Exclusion criteria included any studies conducted outside of the United States in effort to minimize cultural variance or any articles written in a different language. Any articles or studies including the pediatric population were excluded as visitation policies surrounding the pediatric population vastly differ from the adult population in many regards.

## Data Collection

Utilizing Polit and Beck's Tenth Edition Guide to an Overall Critique of Quantitative Research Report and Guide to an Overall Critique of Qualitative Research Report (2017), the research articles utilized for this integrative review were critiqued. The integrative review was reviewed utilizing Polit and Beck's Guidelines for Critiquing Integrative Reviews. The quantitative report tables are created using IMRAD format, (Introduction, Method, Results and Discussion). Although qualitative reports are slightly less likely to adhere to this format than quantitative studies, they often do. There is a more interpretive approach when reviewing quantitative research than with qualitative reports, as much of the study data is displayed in statistical tables while qualitative data gives illustrative examples only. Consideration of particular aspects of both quantitative and qualitative studies include the meaning of the results, importance of the results, credibility/accuracy of results, generalization of results or their potential use in other arenas, and also practice or theory applications. Appendix B will represent the Polit & Beck critiquing tables. (Polit & Beck, 2017).

## Cross Literature Analysis

A cross study data table was used to disseminate each research study, including identification of the article and its purpose, the study design, and findings and recommendations. Cross study analysis is utilized in order to analyze data from individual studies, and allow the author to identify themes and patterns between the data.

# Results

## Detailed Search Strategy

Several different databases were used to identify pertinent published material. Using CINHAL, PubMed, and Medline databases, systematic searches using the terms ‘open visiting policy’, ‘flexible visitation’, ‘ICU visitation’, ‘ICU visitation U.S.’, and collection of terms ‘nurses’ attitudes beliefs visitation’ was conducted. The timeframe utilized for the search was 2004-2017 and limited to studies published in the English language only. The original search of the three databases yielded a total of 838 references. Together, CINHAL and Medline produced a total of 418 references, as the databases were searched simultaneously. PubMed initially produced 420 references. The adult age range (19 +) was then applied to the search, and 289 references remained. Despite the applied age criteria, many remaining references involving the pediatric population were left. After manually omitting these results, the titles and abstracts of the remaining 59 papers were read. Twenty-eight articles that were based outside of the United States were also omitted to decrease the element of cultural variance. The remaining 31 articles were reviewed. Nineteen were omitted because they were unrelated to the subject matter or did not involve an ICU in an inpatient setting. Ultimately, 11 references were utilized for the integrative review: one integrative review and ten studies. The studies included one performance improvement project, one quality improvement project, one telephone survey, four quantitative studies, two qualitative studies, one prospective observational design and one mixed- method study. The PRISMA diagram on the next page demonstrates the comprehensive search strategy. (Figure 2).

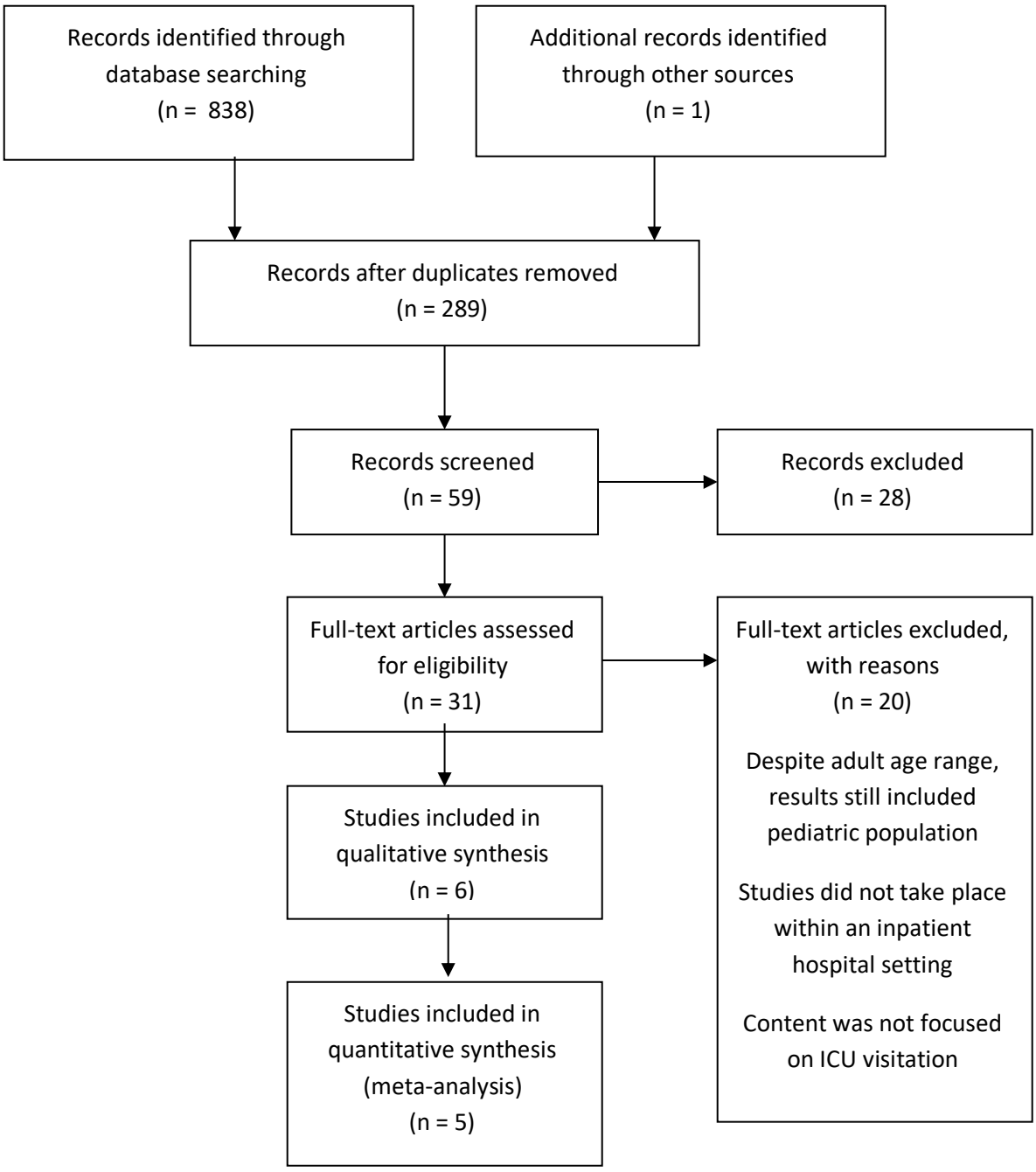


*Figure 2.* PRISMA Diagram

## Individual Study Critiques

In this section, each publication selected for the integrative review will be briefly reviewed, with the Appendices providing further detail. Appendix A is a table used as key that lists each study and assigns a numerical value (B1-B11) according to the publication date. The studies will be listed in chronological order with oldest studies first. Each included publication was critiqued using the Polit and Beck guidelines and are included in Appendix B. Finally the cross-sectional analysis is illustrated in Appendix- C.

Hepworth et al. (1994) (Appendix B-1) conducted a two- part study consisting of a Concomitant Time Series Analysis Assessing Effects on ICP (study 1), and Interrupted and Concomitant Time Series Analysis Assessing Effects on Blood Pressure and Heart Rate (study 2). The studies were designed to examine the physiological effects of family presence within the critical care environment. Data originally reported by Hendrickson (1987) was reanalyzed in study 1. Twenty-four patients, 13 males and 11 females with ventriculostomies and other devices which monitored ICP, were the subjects. Utilizing a CTS model, the impact of family presence and other variables such as medications and suctioning on ICP were assessed. Time was also utilized as an independent variable to assess trends in ICP.

Results were divided into individual and group. Individual results showed six statistically significant ($p < 0.5$) results out of the 24 parameter estimates, one for each individual. A significant reduction in ICP was indicated by all six values being negative. Eighteen non-significant estimates showed 12 negative and six positive

scores indicating patients whose ICP were affected by family presence all had decreases in ICP. Two-thirds of the remaining non-significant changes were decreased. Group results were analyzed to integrate the 24 findings and *t* tests on the parameter estimated with their corresponding *t* values were calculated. For family presence, the estimated average parameter variable was -0.87 and also statistically significant ($t$ [23] = -3.58; $p$=.002). Also calculated was the average *t* test on the individual *t* value associated with each parameter. The average t value was -1.11, which was also statistically significant (t [23] = -3.98; $p < .001$), which indicates an inclusive reliable decrease in ICP.

The second part of the study included 15 neurosurgical ICU patients, 10 males and five females. A family member for each patient also participated in the study. Data were recorded at 1-minute intervals for 90 minutes, including 30 minutes prior, during and after the visit. Interrupted time series and concomitant time series models were developed for heart rate and systolic and diastolic blood pressures and ITS analysis was the main tool to measure effect of family visits on blood pressure and heart rate.

Results showed that family presence had an effect on the patient. A reduction of systolic pressure was shown (4 of 5), diastolic blood pressure was increased (4 of 6), and an increase in heart rate (8 of 10). Since ITS models are not ideal for sequential analysis of overall group effects, the CTS models were utilized. CTS results showed three significant effects on systolic blood pressure, (2 decreased and 1 increased), three significant effects on diastolic blood pressure (2 decreased and 1 increased), and four significant effects on heart rate (all increased). Calculated *t* tests showed no

overall significant changes except for significant increase in heart rate ($t$ [14] = 2.17; $p$ = 0.5).

A 2005 quality improvement project by Livesay et al. (Appendix B-2) was conducted at Saint Luke's Hospital in Texas to determine possible effects from open visitation within the neuroscience ICU environment. A nine-question survey was completed by 22 RNs and four patient care assistants in order to examine nurses' perceptions of the current visitation policy, their perceived need for changes in the policy, and their perception of current policy of the patient's health status.

Data from the survey were analyzed to identify themes, perceptions, and beliefs of the neuroscience ICU staff. Families and staff alike felt unsupported when conflict arises surrounding an open visitation policy that is not clearly defined by the institution. Having a clear and uniform policy implemented could reduce frustration for the nurse as well as the patient and their family. It was identified that multilevel education was also needed to enforce the policy uniformly after visitation policy/procedures are developed. Written information available for disbursement to visitors can then be based off a clear- cut policy. Lastly, study findings demonstrated it is necessary to open lines of communication between nurses to resolve issues related to policy application.

Kirchoff and Dahl (2006) (Appendix B-3) summarized the results of a survey conducted by AACN of randomly selected critical care units in the U.S. The purpose of the survey was to describe issues regarding workforce, care, and compensation within the critical care setting and for their nurses. The AACN survey was utilized

as a point of reference for which other hospitals can compare care. One hundred and twenty facilities, all with greater than 50 beds, participated in the survey. Two instruments, a facility survey and a unit survey, were utilized to gather data. The facility questionnaire included questions on operations demographics, evaluations, incentives and nursing staff reimbursement, staffing, quality indicators, and information on the unit and the contact information for the critical care unit managers. The unit questionnaire had questions with a wider variety of subjects including operations, acuity systems, staffing, visitation policies, end of life care, administrative structure, documentation, certification, professional advancement, floating/vacancy, staff satisfaction, orientation, nurse wages, association membership, advanced practice nursing, and quality indicators.

Regarding visitation policies, units were asked what their family visitation policy was. There was significant variation by unit type and size. Options listed were open on a scheduled basis only, open except for rounds/ shift changes, open at all times, and the option to write in a response. Of the adult intensive care units, most (44%) were open on a scheduled basis only, with (31%) open except for rounds and/or changes in shift. Only a small percentage of units (14%) were open at all times.

Visitation policies in New England ICUs (Appendix B-4) were explored by Lee et al. (2007) in a two-part study consisting of a survey and focus groups. A telephone interview was given to adult ICUs in six New England states to determine visiting policies in the units. Next, nurses with at least eight years of experience participated in six focus group sessions. Out of 171 hospitals surveyed, 62 (32%) had unrestricted

open visitation. Fifty-seven (92%) of the units were medical ICUs or mixed medical/surgical ICUs. Only one (20%) out of five trauma units had open visitation and four (20%) surgical ICUs out of 20 had open visitation. Restrictions on age and number of visitors were found in most units. Sixty-five (57%) of those units had an age requirement of greater than 12. One hundred sixty-six (85%) ICUs restricted the number of visitors at any given time and 151 (91%) limited their visitors to two at a time. The 62 (32%) units that had open visitation did, however, have restrictions on age and number of visitors: 23 (37%) had an age restriction, 40 (65%) had restrictions on number of visitors, and 31 (78%) had a maximum of two visitors at a time.

Nurses identified areas of concern surrounding open visitation within the focus group sessions including space, conflict, and burden. Possible solutions to overcome these barriers were also identified, such as utilizing a visitor liaison to address family concerns and educating visitors on the structure of the ICU by providing them with a pamphlet of visitation rules and schedules. Proposed resolutions to space issues included providing large family consultation rooms, providing sleeping areas for visitors, and directing visitors to the waiting area when the staff needs the room free.

In a descriptive correlational study, Hart et al. (2013) (Appendix B-5) explored the satisfaction of nurses and patients' families with visitation policies in five critical units in an acute care hospital in southeastern US. The visitation guidelines in the facility were open visitation on a scheduled basis, with 30-minute visits allowed at 9:00 am, noon, 5:00 pm, and 8:00 pm. Families (n=104) and nurses (n=72) completed a questionnaire on their perspective of the visiting hours. Family

responses consisted of a surgical ICU (SICU) (n=13), cardiovascular step- down unit (n=19), coronary care unit (CCU) (n=5), progressive CCU (PCCU) (n=62), and the post-ICU (PICU) (n=7). Responding nurses were employed in the SICU (n=13), cardiovascular step-down unit (n=10), CCU (n=9), PCCU (n=16), and the PICU (n=24). Family and Nurse Visitation Questionnaires were adapted from Roland et al. (2001) and a nurse visitation preference survey was modified and utilized for nurse completion also.

Results showed nurses from all the units except for PICU and PCCU were satisfied with the current visitation hours. Nurses were more dissatisfied with visiting hours than family members. Regarding level of satisfaction, time preference, frequency and length of visitation, nurses and family showed significant differences. A t-Test was used to demonstrate these differences and were displayed in table 7 within the study. Families expressed that 4 to 8pm were the most convenient visiting hours, while the majority of nurses wanted to keep visiting hours to day-shift hours. Nurse responses regarding acceptable reasons for visiting during closed hours varied, although the majority of nurses would allow visitation during eminent death. Nurses also identified reasons they felt visitation was detrimental to patients, which were divided into four areas: poor physiological outcomes; psychological stress; hindrance to delivery of care; and family dynamics.

Liu et al. (2013) (Appendix B-6) conducted a telephone survey of US ICUs to determine hospital characteristics as well as hospital and ICU visitation restrictions based on five criteria: visiting hours; visit duration; age of visitors; number of visitors; and membership in the patient's immediate family. A total of 606 hospitals

were surveyed, with the majority being community hospitals (n= 401; 66.2%). Hospitals were from 50 states, with over one-third from the South (n= 222; 36.6%). The mean hospital size was 239 +/- 217 (median, 159). Restrictive hospital (n=463; 76.4%) and ICU (n= 543; 89.6%) visitation policies were common. The majority of ICUs had three or more restrictions (n= 375; 61.9%), usually regarding visiting hours and age or number of visitors. Exceptions to visitation rules were allowed by almost all ICUs (n=375; 94.8%) Hospitals with < 150 beds had open policies more often. Hospitals located in the Northeast had the most restrictive policies, while hospitals in the Midwest had the least restrictive policies.

In an effort to facilitate increased and steady access to patients, Baylor Health Care System in Dallas, Texas employed a system wide approach to open visitation across all their facilities. Nuss et al. (2014) (Appendix B-7) explored data collected from 13 hospitals that participated in implementation of the open visitation. Assessment data collected from the hospitals covered five areas: presence of signage and open-door access to support the policy; the use and availability of the new policy on visitation; documentation of the patient's primary support person on the medical record; assessment and documentation of the ability of the primary family support person to access the patient 24 hours a day, seven days a week; verification of written guidelines to orient the patient and family to their rights and responsibilities.

Results showed both patients and families felt more informed (88.2% vs. 89.1% respectively), staff attitude towards visitors improved, nurses explained things in a manner that families could understand (74% vs.81.4%), and family accommodations were increased and improved (86.8% vs. 88.9%) over the 18-month period. Other

domains showed improvement also: 24/7 access improved from 88% to 97% and system development/documentation increased from 83% to 98%.

Riley et al. (2014) (Appendix B-8) conducted focus group meetings consisting of nurses, physicians, and family members from five ICUs with traditional/restrictive visitation policies within a southeastern tertiary care hospital. The purpose of the study was to understand the different groups' perceptions on patient-centered care and to facilitate promotion of patient-centered open visitation environment. The focus group consisted of eight female family members from four out of the five ICUs, two male and one female physician rotating in all of the units but the surgical unit, one male and six female nurses from all five units. In total, three family focus groups, two nursing focus groups and one physician focus group were conducted.

Results showed patients' families recognized nurses' and physicians' communication, concern, compassion, closeness and flexibility as facilitators of patient-centeredness. While physicians believed the role of the patients' families as prominent once the patient was discharged from ICU, they were not in favor of 24-hour open visitation. Nurses were divided regarding family presence in the ICU, with some in opposition, to some stating open visitation would take away from patient care. Families preferred to have open visitation. Communication was identified as important to all parties, specifically sharing information on patient status. Physicians believed communication with patients' families should be the responsibility of other members of the healthcare team such as the nursing staff and residents. Nurses identified emergent situations as a barrier in communicating with family members in a timely fashion.

In a 24-bed ICU in a tertiary care hospital, Chapman et al. (2016) (Appendix B-9) surveyed family members of patients as well as nurses employed in an ICU pre-change and post-change in visitation policy. The purpose of the study was to determine if changing from minimally restricted visitation to unrestricted visitation improves satisfaction of patients' family members as well as nurses' satisfaction and satisfaction of patients' families from the nurses' perspective. Family members were surveyed utilizing the visitor version of the *Questionnaires Measuring Satisfaction With Old and New Visitation Policies*. Nurses were surveyed utilizing the nurse version of survey.

Fifty families responded during the pre-change period and 53 responded during the post-change period. Three concepts were identified: waiting room ambience; visitation hour time and convenience; and interactions with hospital staff. Cronbach alphas ranged from 0.81 for waiting room ambience, 0.83 for visitation hour time and convenience, and 0.53 for interactions with hospital staff; the latter was excluded from further analysis. Before and after policy change scores were compared for the other two components using *t* tests. Measures of visitation hour time and convenience were significantly higher post visitation policy change (4.41 vs. 3.87; $p < .001$), as well as measures of waiting room ambience (3.53 vs. 3.17; $p = .02$).

Sixty-one nurses working in the study ICU responded to the pre-change survey and 67 responded to the post-change survey. The nurse respondents from pre-change and post-change period were not identical. Family interference, perceived visitor satisfaction, and keeping visitors informed were the three identified components, with 32.4%, 18.3%, and 9.3% variance explained respectively, for a total of, 59.98%

o. A Cronbach *a* of 0.81 was produced for family interference, 0.74 for perceived visitor satisfaction, and 0.53 for keeping visitors informed; the latter was excluded from further analysis. Nurses' perception of visitor satisfaction was significantly higher post-change in visitation (3.94 vs. 3.60; $p = .03$), while there was no significant change in the family interference score (3.34 vs. 3.35; $p = .94$). A correlation between nurse demographics and component measures was found. Nurses with 15-20 years of experience perceived families interfering with care more often than nurses of other years of experience (2.10 vs. 3.28; $p = .001$). Also, nurses who had been hospitalized believed families were less satisfied than nurses who had not been (Chapman et al., 2016).

With the aim to explore the effect of open visitation on critical care nurse job satisfaction, Monroe and Wofford completed an integrative review on open visitation and nurse satisfaction (Appendix B-10). The authors reviewed 14 selected articles that met the criteria. Ultimately, the integrative review included six analytical cross-sectional studies, one text and opinion paper, two systematic reviews, one quasi-experimental study and four qualitative research articles.

Three themes were identified through pattern recognition which were visitors are essential, visitors as helpers and visitors as disruptors. While nurses acknowledged open visitation had benefits for both patients and families, overall, they preferred restricted visitation because they felt family could affect their workflow and environment. Nurses also felt that a loss of control, interruptions in care and increased workloads were associated with open visitation. Ultimately hospitals must develop strategies to foster open visitation while supporting nurses in the

environment including providing education and training to staff, increasing nursing confidence, improving staffing, and developing roles specifically to assist families and to offer resources to nurses (Monroe & Wofford, 2014).

Kozub et al. (2017) (Appendix B -11) conducted a performance improvement project in order to increase nurse satisfaction related to patient and family centered care (PFCC) after implementation of 24- hour open visitation within a surgical ICU. Staff guidelines including scripting prompts for nurses to utilize during interactions with families were developed by the Unit Practice Council. At the conclusion of the PI project, the SICU nurses had a decrease in their average stress level with PFCC from 2.5 to 2. Nurses also reported having improvement in reducing patient or family anxiety and identifying individuals for advice in reducing family anxiety.

With more ICUs throughout the U.S moving towards PFCC environments, assessing their standing visitation policies is paramount in implementing open visitation. Developing guidelines for family visitation can be employed in other ICUs and hospitals. Utilizing scripting prompts in conjunction with visitation guidelines can facilitate nurses' skills in communicating with families (Kozub et al., 2017).

## Cross Section Analysis

Appendix C displays findings across studies and illustrates a few recurring themes. The first identified theme is that open and flexible visitation is optimal in the ICU setting. Hart et al. (2013), Nuss et al. (2014) and Chapman et al. (2016) all recommended open visitation within the ICU in some capacity. Hart et al. (2013) recommended that family member visitation in the ICU should be more flexible, as restricting family access to their loved ones has the potential to have a detrimental effect on the overall health of the patient as well as their families. They also suggested that discussing an individual plan for family visitation on admission would be beneficial to adapt to unique family dynamics. Nuss et al. (2014) recommended that open access visitation is beneficial for both the patient and family and can create a positive impact on the family partnership in care and that family participation was hindered by restrictive visiting hours. Chapman et al. (2016) concluded from their research that open and patient tailored visitation is recommended as the preferred visitation model and within their study, with removal of even minor visitation restrictions, both family and nurses perceptions of family satisfaction were improved.

A second theme identified in the literature was the concept of patient-centered care within the ICU. Chapman et al. (2016), and Kozub et al. (2017), Nuss et al. (2014), Riley et al. (2014) all supported PFCC. Nuss et al. (2014) stated that active involvement of the patient and family in care planning as well as implementation was supported as a safety initiative in their QI project and open access in the ICU was supportive of practicing PFCC. Riley et al. (2014) identified patient centered

care as being beneficial for patients, families, as well as health care providers, and provided direction to implement interventions to move toward a family supportive and patient-centered ICU environment. Chapman et al. (2016) supported unrestricted visitation as part of patient-and family-centered critical care and indicated this model is preferred for the ICU environment. Kozub et al. (2017) also supported the movement towards PFCC improving long term health outcomes and showed that utilizing staff guidelines for open visitation can support PFCC.

Another theme identified was nurses' stress associated with open visitation in the ICU. Kozub et al. (2017), Lee et al. (2007), Livesay et al. (2005), and Monroe et al. (2017) discussed the topic within their studies. Livesay et al. (2005) suggested implementing and enforcing a uniform visiting policy in order to decrease frustration and dissatisfaction of the ICU nurse, as the vast variability in nurses' interpretation and implementation of open visitation can lead to inconsistencies and create frustration and confusion. Lee et al. (2007) acknowledged that while open visitation in the ICU may help meet family and patient needs, nurses identified barriers associated with open visitation. The authors identified nursing apprehensions associated with open visitation and offered solutions to help alleviate the nurses' concerns. Monroe et al. (2017) recognized that while open visitation was beneficial for patients and families, it could affect the nurses' work environment. Utilizing visitation policies that support nurses in managing additional work and assist in reducing their stress of meeting patient and family needs is supported through the literature. Utilization of evidenced-based strategies that support the nurses in stressful ICU environments can improve their job satisfaction. Kozub et al. (2017)

also identified open visitation as being a potential stressor for the ICU nurse and described how utilizing staff guidelines for family visitation such as scripting prompts, and staff member mentors can improve the nurse's satisfaction. When the nurses' satisfaction within the ICU is increased, subsequently patient and family satisfaction will be proportionally affected, rendering an overall healthier environment.

Next, the summary and conclusions will be presented.

## Summary and Conclusions

The purpose of this project was to conduct an integrative review related to ICU nurses' perceptions of open visiting policy and its' impact on patient care. While much research has been completed on the topic, no clear-cut solutions have been identified. This author wanted to delve into the literature to determine if most ICUs had open or restricted visitation, what the barriers/benefits of open visitation were, as well as the recommendations for optimal visitation policies within the critical care environment.

Within the literature review, the topic of visitation policy in the US was discussed. Kirchoff and Dahl (2006) summarized a 2006 AACN survey and found great variation in visitation policy by unit size and type. Only 14% of adult ICUs had unrestricted, open visitation. Forty-four percent (n = 51.9) out of 118 ICUs were open on a scheduled basis only and 31% (n =36.5) were open indefinitely, excluding rounds and/or change in shift report. A 2007 study by Lee et al. in New England showed only 62 (32%) of the surveyed ICUs had open visitation. Most units had restrictions on both age and number of visitors. In Liu et al.'s 2013 study including 606 hospitals, the majority (n=463: 76.4%) of ICUs had restrictive visiting policies; most also allowed exceptions to those restrictions (n=474; 94.8%). Only a few had open visiting policies and they were more often found in smaller hospitals with less than 150 beds when compared to larger facilities (16.8% vs 5.1%, $x2$ $p < 0.00$).

The integrative review was conducted utilizing the Synergy Model as a framework. The Synergy Model (Figure 1) guides quality nursing practice, with a focus on the critical care arena. A search was conducted using the terms open

visiting policy, flexible visitation, ICU visitation, ICU visitation United States, and collection of terms “nurses,’ attitudes, beliefs, and visitation” within the CINHAL, PubMed, and Medline databases. The Prisma Diagram (Figure 2) demonstrates the comprehensive search strategy. After reviewing all relevant articles and applying inclusion and exclusion criteria, the selected articles were thoroughly reviewed and analyzed using the Polit and Beck (2016) critical analysis method. Utilizing this method provided a framework for evaluation of key aspects of the literature, based on type. All selected articles were evaluated individually and then cross-analyzed.

Family was often viewed as a barrier in the context of visitation in the ICU environment in the literature. Numerous perceived barriers to open family visitation were identified including hinderance in the delivery of care, physiologic concerns, reduced rest, safety concerns, creating additional workload, and privacy. On the other hand, the family was also viewed as beneficial and contributing to enhanced teaching, improved communication, reduced anxiety, family satisfaction and physiologic benefits.

Open visitation contributing to nurses’ stress was identified by Livesay et al. (2005), Lee et al. (2007), Monroe et al. (2017), and Kozub et al. (2017). Liu et al. showed great variability regarding visitation, as well as nurses’ knowledge of their unit’s policies and how those policies were being implemented. Livesay et al. also found nurses felt the term “open visiting hours” may be dependent on the how each nurse enforces the policy and that open visitation varied from staff member to staff member. These discrepancies can contribute to inconsistency as well as lead to frustration and confusion.

Open visitation was found to be optimal in the ICU in some literature; Hart et al. (2013), Nuss et al. (2014) and Chapman et al. (2016) all recommended open visitation in the ICU in some capacity. The concept of PFCC was supported with open visitation and Nuss et al. (2014), Riley et al. (2014), Chapman et al. (2016), and Kozub et al. (2017) all favored the movement toward PFCC, stating that it improved long term health outcomes.

The integrative review was not without limitations. First, the search was conducted using only three databases. Of the literature reviewed, one study was limited by patients' families being reluctant to express their true feelings. They were concerned about retribution as well as poor participation from families, physicians, and nurses because they felt the need to remain in or near the ICU. Generalizability was limited in several studies due to varying factors such as small population sizes, convenience sampling techniques, and the focus groups consisting of nurses only and excluding medical directors and physicians.

In conclusion, while many surveyed ICUs across the US have restrictions on visitation, the literature included in this integrative review overall supports open visiting policy within the ICU environment. The possible negative effects of family presence on the unit can be offset by tailoring visitation on a patient to patient basis, which can also alleviate some of the stress associated with open visitation for the ICU nurse. Hospitals interested in implementing open and unrestricted visitation may refer to progressive hospitals that have already successfully transitioned to open visitation to facilitate their own conversion.

Next, recommendations and implications for advanced practice nursing will be discussed.

## Recommendations and Implications for Advanced Nursing Practice

As APRN presence expands in the critical care environment, APRNs have a unique opportunity to play a pivotal role in the development and delivery of educational programs for professional staff members regarding open visitation. These programs can demonstrate the benefit of unrestricted family presence while providing tools for nursing staff to facilitate positive interactions with families. The APRN can encourage staff feedback into necessary provisions in visitation policies while overseeing and maintaining an environment that fosters open visitation.

Implications for practice largely involve clinical nurses as they have numerous responsibilities and roles within the ICU. Unrestricted presence of family and friends can contribute to elevated stress and an increased workload for the nurse (Livesay et al., 2005; Lee et al., 2007; Monroe et al., 2017; Kozub et al., 2017). Nurses act as a liaison between providers, between the family and provider, and between the patient and provider. Therefore, it is important for nurses to have the ability to tailor visitation on an individual basis when necessary to meet patient and family need while minimizing their own strain. Furthermore, having identified clear-cut guidelines for visitation within the ICU environment that are overtly posted for both staff and visitors is advantageous (Livesay et al., 2005). Established guidelines can assist in decreasing confusion as well as maintaining and enforcing policy, which can decrease nurses' dissatisfaction and concerns with open visitation. In order for nurses to manage families effectively, training and the availability of support is essential. Nurses need to understand family dynamics and crisis intervention and have the ability to consult with specialists in difficult and challenging situation. Because of

their continued presence on the units, nurses have a pivotal role in the development, implementation, and evaluation of changes to policy first hand.

Specific to policy, open visitation and fostering the PFCC centered environment has been shown to be optimal in the ICU despite the negative connotations associated with open visitation (Chapman et al., 2016, Hart et al., 2013; Kozub et al., 2017; Nuss et al., 2014; Riley et al., 2014). While many ICUs across the U.S. still have restricted visitation (Liu et al., 2013), hospitals are trending toward open visiting with an increased interest in transitioning to the PFCC model (Kozub et al., 2017). Policy is largely directed and influenced by administration and hospital executive leaders and their support is necessary to bring any proposed change to fruition. During policy development and initiation, it is crucial for clinical nurses to collaborate with executive individuals such as hospital executives, chief nursing offices, and upper and mid- level management as an integral part of the process to ensure support and compliance from every angle while instituting important policy transformations. In the hospital setting, nurse representation and actual involvement in development and implementation of policy is key. Advanced practice providers have a unique ability and obligation to advocate that the practice site has policies and procedures that support open visitation in the ICU. If restrictive policies are still in place, the APRN can act as a change agent and engage and recruit administrative support. The APRN can have a direct influence in policy change by identifying issues and lobbying for change on both local and national levels. Participating in professional organizations and conferences can keep the APRN abreast of current issues and provide excellent networking opportunities.

Additionally, APRNs can work as members of the interdisciplinary team in development of organizational infrastructure to support these institutional changes.

Further exploration is necessary to identify barriers and conflicts hindering open visitation within these units. Institutions interested in converting to open visitation can examine studies that have outlined the successful transition to open visitation and model those interventions. Much research on the topic of ICU visitation has been completed and is readily available for benchmarking purposes (Kirchoff & Dahl, 2006). Other areas of research include what specific contributions the APRN can make to facilitate the movement towards the PFCC model in the ICU. While much of the literature examines families' and nurses' satisfaction with open visitation, patient preference was simply not studied or limited by a small sample size. Studies specifically evaluating patient' preference related visitation with larger sample size are indicated. Also, additional studies with increased male participants may be valuable as many of the reviewed studies had an unproportionate number of female subjects, which could contribute to bias or skewed results.

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# Appendix A

| | Date | Author | Title |
|---|---|---|---|
| A-1 | 1994 | Hepworth, J. T., Hendrickson, S. G., & Lopez, J. | Time series analysis of physiological response during ICU visitation |
| A-2 | 2005 | Livesay, S., Gilliam, A., Mokracek, M., Sebastian, S., & Hickey, J. V. | Nurses' perceptions of open visiting hours in neuroscience intensive care unit. Journal of nursing care quality |
| A-3 | 2006 | Kirchhoff, K. T., & Dahl, N. | American Association of Critical-Care Nurses' National Survey of Facilities and Units Providing Critical Care. American Journal of Critical Care |
| A-4 | 2007 | Lee, M. D., Friedenberg, A. S., Mukpo, D. H., Conray, K., Palmisciano, A., & Levy, M | Visiting hours policies in New England intensive care units: strategies for improvement. Critical care medicine |
| A-5 | 2013 | Hart, A., Hardin, S. R., Townsend, A. P., Ramsey, S., & Mahrle-Henson, A. | Critical Care Visitation: Nurse and Family Preference |
| A-6 | 2013 | Liu, V., Read, J. L., Scruth, E., & Cheng, E. | Visitation policies and practices in US ICUs |

| | Date | Author | Title |
|---|---|---|---|
| A-7 | 2014 | Nuss, T., Kelly, K. M., Campbell, K. R., Pierce, C., Entzminger, J. K., Blair, B. K., & Walker, J. L. | The Impact of Opening Visitation Access on Patient and Family Experience |
| A-8 | 2014 | Riley, B. H., White, J., Graham, S., & Alexandrov, A. | Traditional/restrictive vs patient-centered intensive care unit visitation: perceptions of patients' family members, physicians, and nurses |
| A-9 | 2016 | Chapman, D. K., Collingridge, D. S., Mitchell, L. A., Wright, E. S., Hopkins, R. O.,Butler, J. M., & Brown, S. M | Satisfaction with elimination of all Visitation restrictions in a mixed-profile intensive care unit |
| A-10 | 2017 | Monroe, M., & Wofford, L. | Open visitation and nurse job satisfaction: An integrative review. Journal of Clinical Nursing |
| A-11 | 2017 | Kozub, E., Scheler, S., Necoechea, G., & O'Byrne, N. | Improving Nurse Satisfaction With Open Visitation in an Adult Intensive Care Unit |

# Appendix B

## Appendix B-1

Hepworth, J. T., Hendrickson, S. G., & Lopez, J. (1994). Time series analysis of physiological response during ICU visitation. *Western Journal of Nursing Research*, *16*(6), 704-717.

**Polit & Beck Guide to an Overall Critique of a Quantitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title described the problem and the study population; however, it does not detail what specific physiologic response the title references. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract was very detailed and summarized the main features of the report. |
| **Introduction** | Is the problem stated unambiguously and is it easy to identify? Does the problem statement make clear the concepts and the population under study? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a quantitative approach appropriate? | The problem was discussed under its own heading "family visitation" and was described in detail in several paragraphs. A quantitative approach was used. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Literature Review** | Is the literature review thorough, up-to-date, and based mainly on primary sources? Does the review summarize knowledge on the dependent and independent variables and the relationship between them? Does the literature review lay a solid basis for the new study? | The literature review was not up to date as the article was published in 1994 and literature from the 80s was referenced. |
| **Conceptual/ theoretical framework** | Are key concepts adequately defined conceptually? Is there a conceptual/ theoretical framework and is it appropriate? If not, is the absence of one appropriate? | Key concepts such as time series analysis and validity issues such as internal validity and statistical conclusion validity were adequately discussed and defined. |
| **Hypothesis or research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | Hypothesis was clearly stated and worded appropriately. |
| **Method**<br>**Research design** | Was the most rigorous possible design used, given the study purpose? Were appropriate comparisons made to enhance interpretability of the findings? Was the number of data collection points appropriate? Did the design minimize threats to the internal and external validity of the study? | Rigorous design was utilized with time series analysis; validity issues were discussed and considered extensively. |

| Aspect of the Report | Basic Questions for A Critique | Detailing Critiquing Guidelines |
|---|---|---|
| **Population and sample** | Was the population identified and described? Was the sample described in sufficient detail? Was the best possible sampling design used to enhance the sample's representativeness? Was the sample size adequate? Was a power analysis used to estimate sample size needs? | The population was identified and described; a power analysis was not utilized. |
| **Data collection and measurement** | Are the operational and conceptual definitions congruent? Were key variables operationalized using the best possible method (e.g., interviews, observations, and so on)? Were the specific instruments adequately described and were they good choices? Did the report provide evidence that the data collection methods yielded data that were high on reliability and validity? | Observations and specific measurements of ICP, blood pressure, and heart rate were utilized to collect data which were reliable. |
| **Procedures** | If there was an intervention, was it adequately described and was it properly implemented? Were data collected in a manner that minimized bias? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | The intervention of family presence and other independent variables such as medications and suctioning were identified and described. |

| Aspect of the Report | Basic Questions for A Critique | Detailing Critiquing Guidelines |
|---|---|---|
| **Results**<br>**Data analysis** | Were analysis undertaken to address each research question or test each hypothesis? Were appropriate statistical methods used, given the level of measurement of variables, number of groups being compared, and so on? Was the most powerful analytic method used? (e.g., Did the analysis help to control extraneous variables)? | Individual results and group results were calculated. Group results used *t* tests on parameter estimates and associated *t* values were calculated. |
| **Findings** | Were the findings adequately summarized, with good use of tables and figures? Do the findings provide strong evidence regarding the research questions? Were Type 1 and Type 11 errors minimized? | Study 1 and study 2 each had a table detailing findings. |
| **Discussion**<br>**Interpretation of findings** | Are all major findings interpreted and discussed within the context of prior research and/or the study's conceptual framework? Are the interpretations consistent with the results and with the study's limitations? Does the report address the issue of the generalizability of the findings? | The findings were discussed within the context of prior research. Interpretation of the studies including discrepancies were discussed. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or for further research- and are those implications reasonable and complete? | The researchers discussed implications for further research including further consideration of the family visitation milieu. |

| Aspect of the Report | Basic Questions for A Critique | Detailing Critiquing Guidelines |
|---|---|---|
| **Global Issues Presentation** | Was the report well-written, well- organized , and sufficiently detailed for critical analysis? Were you able to understand the study? Was the report written in a manner that makes the findings accessible to practicing nurses? | The study was understandable and accessible to practicing nurses. |
| **Summary assessment** | Despite any identified limitations, do the study findings appear to be valid- do you have confidence in the *truth* value of the results? Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline? | The study findings appeared to be valid and truthful. |

**Appendix B-2**

Livesay, S., Gilliam, A., Mokracek, M., Sebastian, S., & Hickey, J. V. (2005). Nurses' perceptions of open visiting hours in neuroscience intensive care unit. *Journal of Nursing Care Quality, 20*(2), 182-189.

**Polit & Beck Guide to an Overall Critique of a Qualitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The research problem as well as the study population was clearly identifiable by reading the title of the article. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract was concise yet descriptive and summarized the report sufficiently. |
| **Introduction** | Is the phenomenon of interest clearly identified? Is the problem stated unambiguously and is it easy to identify? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a qualitative approach appropriate? | A quality improvement project was utilized which was an appropriate method to investigate the problem. The problem was easily identified and stated clearly. |
| **Literature Review** | Does the report summarize the existing body of knowledge related to the problem or phenomenon of interest? Is the literature review adequate? Does the literature review lay a solid basis for the new study? | The literature review was thorough and provided a solid basis for the project and laid a basis for the new project. |

| Aspect of the Report | Basic Questions for A Critique | Detailing Critiquing Guidelines |
|---|---|---|
| **Conceptual underpinnings** | Are key concepts adequately defined conceptually? Is the philosophical basis, underlying tradition, conceptual framework, or ideological orientation made explicit and is it appropriate for the problem? | There was no specific framework, however a consumer-driven paradigm was an identified concept. |
| **Research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | Research questions were explicitly described and stated appropriately under the "purpose" section within the article. |
| **Method**<br>**Research design and research tradition** | Is the identified research tradition (if any) congruent with the methods used to collect and analyze data? Was an adequate amount of time spent in the field or with study participants? Did the design unfold in the field, allowing researchers to capitalize on early understandings? Was there evidence of reflexivity in the design? Was there an adequate number of contacts with study participants? | Participating staff members had 12 hours, the length of a full shift, to complete the given survey. There were 26 study participants. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Sample and setting** | Was the group or population of interest adequately described? Were the setting and sample described in sufficient detail? Was the approach used to gain access to the site or to recruit participants appropriate? Was the best possible method of sampling used to enhance information richness and address the needs of the study? Was the sample size adequate? Was saturation achieved? | The study sample was described as 22 RNs and 4 PCAs (patient care assistant) who were employed in the neuroscience ICU. |
| **Data collection** | Were the methods of gathering data appropriate? Were data gathered through two or more methods to achieve triangulation? Did the researcher ask the right questions or make the right observations, and were they recorded in an appropriate fashion? Was a sufficient amount of data gathered? Was the data of sufficient depth and richness? | Study participants were invited to participate in the survey through a personal contact by a representative of the research team. The participants were offered a copy of the survey, asked to anonymously complete it within 12 hours, and return it into a mail slot. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Procedures** | Were data collection and recording procedures adequately described and do they appear appropriate? Were data collected in a manner than minimized bias or behavioral distortions? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | The study survey was completed anonymously. The participants' being asked to drop the survey into a mail slot was appropriate. |
| **Results**<br>**Data analysis** | Were the data management (e.g., coding) and data analysis methods sufficiently described? Was the data analysis strategy compatible with the research tradition and with the nature and type of the data gathered? Did the analysis yield an appropriate "product" (e.g., a theory, taxonomy, thematic pattern, etc.)? Did the analytic procedures suggest the possibility of biases? | Data were analyzed to identify themes, perceptions, and beliefs of the neuroscience staff. Biases were not discussed. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Findings** | Were the findings adequately summarized, with good use of excerpts? Do the themes adequately capture the meaning of the data? Does it appear that the researcher satisfactorily conceptualized the themes or patterns in the data? Did the analysis yield an insightful, provocative, and meaningful picture of the phenomenon under investigation? | The questions posed within the survey and a summary of the participant's responses were presented. Specific quotes were not identified. The author did identify emerging themes from the responses to the questions. |
| **Theoretical Integration** | Are the themes or patterns logically connected to each other to form a convincing and integrated whole? Were figures, maps, or models used effectively to summarize conceptualizations? If a conceptual framework or ideological orientation guided the study, are the themes or patterns linked to it in cogent manner? | No figures, maps, or models were utilized. |
| **Interpretation of the Findings** | Are the findings interpreted within an appropriate social or cultural context? Are major findings interpreted and discussed within the context or prior studies? Are the interpretations consistent with the study's limitations? Does the report address the issue of transferability of the findings? | Limitations of the study were not addressed. Transferability of findings were addressed as the authors suggested that attention to a clear and uniform visitation policy may decrease frustration and dissatisfaction of the nurse and patients and their visitors. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Implications/Recommendations** | Do the researchers discuss the implications of the study for clinical practice or further injury- and are those implications reasonable? | Based on the reviewed survey data, the authors recommended development of an educational module. This would allow staff to review visitation policy, create an open forum discussion for concerns, review data on physiologic effects of visitation, and monitor visitation practices as a unit quality indicator. |
| **Global Issues Presentation** | Was the report well-written, well-organized, and sufficiently detailed for critical analysis? Was the description of the methods, findings and interpretations sufficiently rich and vivid? | The report was organized and well-written. The findings could have been elaborated upon by using direct quotes from the survey which were open ended questions. |
| **Summary Assessment** | Do the study findings appear to be trustworthy- do you have confidence in the truth value of the results? Does the study contribute any meaningful evidence that can be useful to the nursing discipline? | The findings appear valid and trustworthy as they came directly from the ICU staff. The findings may be applied to other ICUs' visitation policy reconfiguration. |

**Appendix B-3**

Kirchhoff, K. T., & Dahl, N. (2006). American association of critical-care nurses' national survey of facilities and units providing critical care. *American Journal of Critical Care, 15*(1), 13-28.

**Polit & Beck Guide to an Overall Critique of a Qualitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title described the population and an overview of the research problem; however more information is needed to know what specifically the research problem encompassed. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract summarized the main features of the report. |
| **Introduction** | Is the phenomenon of interest clearly identified? Is the problem stated unambiguously and is it easy to identify? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a qualitative approach appropriate? | The problem did have significance for nursing as the survey data defined the scope and intensity of services available and figures on staffing issues and practices. Utilizing a survey of randomly selected facilities was an appropriate method for the research problem. |
| **Literature Review** | Does the report summarize the existing body of knowledge related to the problem or phenomenon of interest? Is the literature review adequate? Does the literature review lay a solid basis for the new study? | There was a limited literature review. However, the authors acknowledged that little information was available about critical care units and nurses. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conceptual underpinnings** | Are key concepts adequately defined conceptually? Is the philosophical basis, underlying tradition, conceptual framework, or ideological orientation made explicit and is it appropriate for the problem? | There was no framework used in the study. The American Association of Critical Care Nurses (AACN) developed the survey on critical care practices that were used for benchmarking purposes. |
| **Research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | The objective of the survey was specifically stated: to describe issues of workforce, compensation, and care specific to critical care units and the nurses working there. |
| **Method**<br>**Research design and research tradition** | Is the identified research tradition (if any) congruent with the methods used to collect and analyze data? Was an adequate amount of time spent in the field or with study participants? Did the design unfold in the field, allowing researchers to capitalize on early understandings? Was there evidence of reflexivity in the design? Was there an adequate number of contacts with study participants? | There was no identified research tradition. There were an adequate number of study participants, with 120 facilities responding for the first phase and 300 for the second phase. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Sample and setting** | Was the group or population of interest adequately described? Were the setting and sample described in sufficient detail? Was the approach used to gain access to the site or to recruit participants appropriate? Was the best possible method of sampling used to enhance information richness and address the needs of the study? Was the sample size adequate? Was saturation achieved? | A total of 749 randomly selected facilities were invited to participate in the survey. A contact person equivalent to a critical care director for each facility was identified for contact information. |
| **Data collection** | Were the methods of gathering data appropriate? Were data gathered through two or more methods to achieve triangulation? Did the researcher ask the right questions or make the right observations, and were they recorded in an appropriate fashion? Was a sufficient amount of data gathered? Was the data of sufficient depth and richness? | The facility questionnaires were available on a website and email invitations were sent to individuals to encourage participation. As questionnaires were completed, invitations were sent to managers asking participants to complete second phase. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Procedures** | Were data collection and recording procedures adequately described and do they appear appropriate? Were data collected in a manner than minimized bias or behavioral distortions? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | Data collection was appropriate adequately described as addressed above. |
| **Results Data Analysis** | Were the data management (e.g., coding) and data analysis methods sufficiently described? Was the data analysis strategy compatible with the research tradition and with the nature and type of the data gathered? Did the analysis yield an appropriate "product" (e.g., a theory, taxonomy, thematic pattern, etc.)? Did the analytic procedures suggest the possibility of biases? | The sample of facility responders was compared to non-responders to verify that the sample of responders represented the randomized pool of hospitals. Results of completed questionnaires were reviewed for consistency with expected responses and outliers were attempted to be clarified. Extreme outliers in individual item responses that were not able to be verified were omitted in order to not change reported means. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Findings** | Were the findings adequately summarized, with good use of excerpts? Do the themes adequately capture the meaning of the data? Does it appear that the researcher satisfactorily conceptualized the themes or patterns in the data? Did the analysis yield an insightful, provocative, and meaningful picture of the phenomenon under investigation? | Findings were broken down into different headings such as incentives, staffing, operations, and acuity systems and were adequately described. |
| **Theoretical Integration** | Are the themes or patterns logically connected to each other to form a convincing and integrated whole? Were figures, maps, or models used effectively to summarize conceptualizations? If a conceptual framework or ideological orientation guided the study, are the themes or patterns linked to it in cogent manner? | Eight tables and three figures were utilized to effectively summarize information. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Interpretation of the findings** | Are the findings interpreted within an appropriate social or cultural context? Are major findings interpreted and discussed within the context or prior studies? Are the interpretations consistent with the study's limitations? Does the report address the issue of transferability of the findings? | The survey provided more information about the scope and intensity of services, staffing issues, and unit practices. The information could have been used for benchmarking purposes and specifically when the tables provided the information for a similar type of critical care unit |
| **Implications/Recommendations** | Do the researchers discuss the implications of the study for clinical practice or further injury- and are those implications reasonable? | The findings can be utilized for benchmarking purposes and additional articles were planned to focus on specific areas of findings such as similarities and differences between ICU and progressive care units. |
| **Global Issues Presentation** | Was the report well-written, well-organized, and sufficiently detailed for critical analysis? Was the description of the methods, findings and interpretations sufficiently rich and vivid? | The report was well written and organized with sufficient details of findings. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Summary Assessment** | Do the study findings appear to be trustworthy- do you have confidence in the truth value of the results? Does the study contribute any meaningful evidence that can be useful to the nursing discipline? | The findings appeared trustworthy and reliable and could be utilized for benchmarking purposes. Findings certainly provided meaningful evidence for nursing practice. |

**Appendix B-4**

Lee, M. D., Friedenberg, A. S., Mukpo, D. H., Conray, K., Palmisciano, A., & Levy, M. (2007). Visiting hours policies in New England intensive care units: strategies for improvement. *Critical care medicine, 35*(2), 497-501.

**Polit & Beck Guide to an Overall Critique of a Qualitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title was suggestive of the research problem; however, the specific population was not clearly identified by reading the title alone. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract summarized the main features of the report. |
| **Introduction** | Is the phenomenon of interest clearly identified? Is the problem stated unambiguously and is it easy to identify? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a qualitative approach appropriate? | The phenomenon of interest was clearly identified. The problem was identified and described thoroughly within the introduction. A mixed method, two-part study was an appropriate method for the research problem. |
| **Literature Review** | Does the report summarize the existing body of knowledge related to the problem or phenomenon of interest? Is the literature review adequate? Does the literature review lay a solid basis for the new study? | The existing body of knowledge on visitation within the ICU environment was discussed and appeared adequate. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conceptual underpinnings** | Are key concepts adequately defined conceptually? Is the philosophical basis, underlying tradition, conceptual framework, or ideological orientation made explicit and is it appropriate for the problem? | The key concept of patient and family centered care was discussed and described. |
| **Research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | The research question was explicitly stated and described under an "objective" heading. |
| **Method**<br>**Research design and research tradition** | Is the identified research tradition (if any) congruent with the methods used to collect and analyze data? Was an adequate amount of time spent in the field or with study participants? Did the design unfold in the field, allowing researchers to capitalize on early understandings? Was there evidence of reflexivity in the design? Was there an adequate number of contacts with study participants? | No research tradition was identified. Adequate time was spent with study participants, as six focus groups were conducted to obtain information. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Sample and setting** | Was the group or population of interest adequately described? Were the setting and sample described in sufficient detail? Was the approach used to gain access to the site or to recruit participants appropriate? Was the best possible method of sampling used to enhance information richness and address the needs of the study? Was the sample size adequate? Was saturation achieved? | The setting was described as ICUs in New England and one medical ICU in a tertiary care hospital. The subjects were described as registered nurses employed in medical ICUs. |
| **Data collection** | Were the methods of gathering data appropriate? Were data gathered through two or more methods to achieve triangulation? Did the researcher ask the right questions or make the right observations, and were they recorded in an appropriate fashion? Was a sufficient amount of data gathered? Was the data of sufficient depth and richness? | In order to ascertain visiting hour policies within each ICU, a telephone questionnaire/interview was conducted. Six focus group sessions were held with the nursing staff who worked in a unit with an unrestricted visiting hour policy. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Procedures** | Were data collection and recording procedures adequately described and do they appear appropriate? Were data collected in a manner than minimized bias or behavioral distortions? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | Data collection was not extensively discussed other than that six focus groups and a telephone questionnaire we done. |
| **Results**<br>**Data analysis** | Were the data management (e.g., coding) and data analysis methods sufficiently described? Was the data analysis strategy compatible with the research tradition and with the nature and type of the data gathered? Did the analysis yield an appropriate "product" (e.g., a theory, taxonomy, thematic pattern, etc.)? Did the analytic procedures suggest the possibility of biases? | The focus groups identified categories of obstacles for open visitation. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Findings** | Were the findings adequately summarized, with good use of excerpts? Do the themes adequately capture the meaning of the data? Does it appear that the researcher satisfactorily conceptualized the themes or patterns in the data? Did the analysis yield an insightful, provocative, and meaningful picture of the phenomenon under investigation? | Findings of the focus groups were broken down into different categories including space, communication and conflict, and burden. |
| **Theoretical integration** | Are the themes or patterns logically connected to each other to form a convincing and integrated whole? Were figures, maps, or models used effectively to summarize conceptualizations? If a conceptual framework or ideological orientation guided the study, are the themes or patterns linked to it in cogent manner? | No models, figures, or tables were utilized within the study. |
| **Interpretation of the findings** | Are the findings interpreted within an appropriate social or cultural context? Are major findings interpreted and discussed within the context or prior studies? Are the interpretations consistent with the study's limitations? Does the report address the issue of transferability of the findings? | The authors noted that the generalizability of the findings may be limited as the study results were from a single medical ICU in an urban university hospital. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or further injury- and are those implications reasonable? | Solutions for nursing concerns with unrestricted ICU visitation were identified and may offer guidance for other ICUs considering moving towards an open visitation policy. |
| **Global Issues Presentation** | Was the report well-written, well-organized, and sufficiently detailed for critical analysis? Was the description of the methods, findings and interpretations sufficiently rich and vivid? | The use of charts and/or graphs could have been helpful to adequately display the findings. |
| **Summary Assessment** | Do the study findings appear to be trustworthy- do you have confidence in the truth value of the results? Does the study contribute any meaningful evidence that can be useful to the nursing discipline? | The findings do appear valid and truthful and the study contributed to the nursing discipline as it may assist other ICUs transitioning to an open policy environment. |

**Appendix B-5**

Hart, A., Hardin, S. R., Townsend, A. P., Ramsey, S., & Mahrle-Henson, A. (2013). Critical care visitation: nurse and family preference. *Dimensions of Critical Care Nursing, 32*(6), 289-299.

**Polit & Beck Guide to an Overall Critique of a Qualitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title, although succinct, was indicative of the research problem as well as the study population. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract was detailed and adequately summarized the main features of the report. |
| **Introduction** | Is the phenomenon of interest clearly identified? Is the problem stated unambiguously and is it easy to identify? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a qualitative approach appropriate? | The phenomenon of interest was clearly identified, specifically stressors for both the family and the nursing staff, which is indeed significant in the nursing field. |
| **Literature Review** | Does the report summarize the existing body of knowledge related to the problem or phenomenon of interest? Is the literature review adequate? Does the literature review lay a solid basis for the new study? | The literature review discussed ICU visitation historically as well as in a more current modern day context. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conceptual underpinnings** | Are key concepts adequately defined conceptually? Is the philosophical basis, underlying tradition, conceptual framework, or ideological orientation made explicit and is it appropriate for the problem? | The framework for the study was the AACN Synergy Model for patient care which is well described and discussed by the authors. |
| **Research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | The research question was explicitly stated and described under a "purpose" heading. |
| **Method**<br>**Research design and research tradition** | Is the identified research tradition (if any) congruent with the methods used to collect and analyze data? Was an adequate amount of time spent in the field or with study participants? Did the design unfold in the field, allowing researchers to capitalize on early understandings? Was there evidence of reflexivity in the design? Was there an adequate number of contacts with study participants? | The survey was provided to nursing staff around the clock over a period of three months to allow for inclusion of as many nurses as possible. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Sample and setting** | Was the group or population of interest adequately described? Were the setting and sample described in sufficient detail? Was the approach used to gain access to the site or to recruit participants appropriate? Was the best possible method of sampling used to enhance information richness and address the needs of the study? Was the sample size adequate? Was saturation achieved? | The location of the study was five critical care units in a 435-bed acute care hospital in the southeastern part of the United States. |
| **Data collection** | Were the methods of gathering data appropriate? Were data gathered through two or more methods to achieve triangulation? Did the researcher ask the right questions or make the right observations, and were they recorded in an appropriate fashion? Was a sufficient amount of data gathered? Was the data of sufficient depth and richness? | The data collector gave the survey to nursing staff and made sure that completion of the survey was voluntary and non-completion had no impact on the nurse. |
| **Procedures** | Were data collection and recording procedures adequately described and do they appear appropriate? Were data collected in a manner than minimized bias or behavioral distortions? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | Data collection appeared appropriate as discussed above and a consent form was attached to each survey and was completed by the nurse. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Results**<br>**Data analysis** | Were the data management (e.g., coding) and data analysis methods sufficiently described? Was the data analysis strategy compatible with the research tradition and with the nature and type of the data gathered? Did the analysis yield an appropriate "product" (e.g., a theory, taxonomy, thematic pattern, etc.)? Did the analytic procedures suggest the possibility of biases? | The study utilized an adapted version of the Family and Nurse Visitation Questionnaires and validity was established by an expert panel from the University of Arkansas College of Nursing. |
| **Findings** | Were the findings adequately summarized, with good use of excerpts? Do the themes adequately capture the meaning of the data? Does it appear that the researcher satisfactorily conceptualized the themes or patterns in the data? Did the analysis yield an insightful, provocative, and meaningful picture of the phenomenon under investigation? | Findings were extensively summarized within the text as well as displayed in multiple tables which adequately yielded a meaningful picture of the information. |
| **Theoretical integration** | Are the themes or patterns logically connected to each other to form a convincing and integrated whole? Were figures, maps, or models used effectively to summarize conceptualizations? If a conceptual framework or ideological orientation guided the study, are the themes or patterns linked to it in cogent manner? | Thirteen tables were utilized to display the information from the study, which assisted with thematical connections. |

| Aspect of the Report | Basic Questions of A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Interpretation of the findings** | Are the findings interpreted within an appropriate social or cultural context? Are major findings interpreted and discussed within the context or prior studies? Are the interpretations consistent with the study's limitations? Does the report address the issue of transferability of the findings? | The authors noted that results of the study were difficult to interpret in some regards because of the varied results of family participants. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or further injury- and are those implications reasonable? | The researchers recommended that family member visitation within the ICU be more flexible and that an individual plan for family visitation should be discussed on admission to accommodate unique family dynamics. |
| **Global Issues Presentation** | Was the report well-written, well-organized, and sufficiently detailed for critical analysis? Was the description of the methods, findings and interpretations sufficiently rich and vivid? | The report was well-written and sufficiently detailed. |
| **Summary Assessment** | Do the study findings appear to be trustworthy- do you have confidence in the truth value of the results? Does the study contribute any meaningful evidence that can be useful to the nursing discipline? | The study as well as the results did appear to be trustworthy and reliable and certainly could assist other ICUs in development of tailored visitation scheduling. |

**Appendix B-6**

Liu, V., Read, J. L., Scruth, E., & Cheng, E. (2013). Visitation policies and practices in US ICUs. *Critical Care*, *17*(2), R71.

**Polit & Beck Guide to an Overall Critique of a Quantitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title was suggestive of the research problem and setting but did not specify the population. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract was adequate in summarizing the report in a clear manner. |
| **Introduction** | Is the problem stated unambiguously and is it easy to identify? Does the problem statement make clear the concepts and the population under study? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a quantitative approach appropriate? | The problem was unambiguously described within the introduction as "however, visitation policies in US ICUs, and the hospital factors associated with them, are not well described". |
| **Literature Review** | Is the literature review thorough, up –to-date, and based mainly on primary sources? Does the review summarize knowledge on the dependent and independent and independent variables and the relationship between them? Does the literature review lay a solid basis for the new study? | The literature review was very limited. |

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conceptual/ theoretical framework** | Are key concepts adequately defined conceptually? Is there a conceptual/ theoretical framework and is it appropriate? If not, is the absence of one appropriate? | There was no conceptual framework or key concepts identified. |
| **Hypothesis or research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | Hypothesis was not identified as the study was to examine the hospital visitation policies as well as factors associated with them. |
| **Method**<br>**Research design** | Was the most rigorous possible design used, given the study purpose? Were appropriate comparisons made to enhance interpretability of the findings? Was the number of data collection points appropriate? Did the design minimize threats to the internal and external validity of the study? | A telephone survey of ICUs was administered to representatives of hospitals stratified by US region and hospital type (community, federal, or university.) |
| **Population and sample** | Was the population identified and described? Was the sample described in sufficient detail? Was the best possible sampling design used to enhance the sample's representativeness? Was the sample size adequate? Was a power analysis used to estimate sample size needs? | Six hundred and six hospitals completed the survey out of 695 contacted hospitals, which was an adequate size. The authors broke down the hospitals by region within the US as well. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Data collection and measurement** | Are the operational and conceptual definitions congruent? Were key variables operationalized using the best possible method (e.g., interviews, observations, and so on)? Were the specific instruments adequately described and were they good choices? Did the report provide evidence that the data collection methods yielded data that were high on reliability and validity? | Data were described as number (frequency) and mean +/- standard deviation. Spearman's correlation coefficient was utilized to assess the intra-hospital correlation between the number of hospital and ICU restrictions. |
| **Procedures** | If there was an intervention, was it adequately described and was it properly implemented? Were data collected in a manner that minimized bias? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | For each participating hospital, the ICU leadership was contacted if available, or an ICU nursing staff familiar with visitation policies to conduct the telephone surveys. |
| **Results**<br>**Data analysis** | Were analysis undertaken to address each research question or test each hypothesis? Were appropriate statistical methods used, given the level of measurement of variables, number of groups being compared, and so on? Was the most powerful analytic method used? (e.g., Did the analysis help to control extraneous variables)? | Key hospital characteristics were utilized as key predictor variables in univariable and multivariable linear regression, where the number of ICU restrictions was used as the outcome variable. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Findings** | Were the findings adequately summarized, with good use of tables and figures? Do the findings provide strong evidence regarding the research questions? Were Type 1 and Type 11 errors minimized? | Three tables were utilized to adequately display findings. |
| **Discussion Interpretation of findings** | Are all major findings interpreted and discussed within the context of prior research and/or the study's conceptual framework? Are the interpretations consistent with the results and with the study's limitations? Does the report address the issue of the generalizability of the findings? | Interpretation of the study appeared to be consistent with the results. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or for further research- and are those implications reasonable and complete? | The authors suggested that the wide variability in ICU visitation policies warranted further studies into the impact of visitation on the family and patients. This was identified as potentially improving future practice. |
| **Global Issues Presentation** | Was the report well-written, well- organized , and sufficiently detailed for critical analysis? Were you able to understand the study? Was the report written in a manner that makes the findings accessible to practicing nurses? | The study was understandable and accessible to practicing nurses. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Summary assessment** | Despite any identified limitations, do the study findings appear to be valid- do you have confidence in the *truth* value of the results? Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline? | The study findings appeared to be valid and truthful. |

**Appendix B-7**

Nuss, T., Kelly, K. M., Campbell, K. R., Pierce, C., Entzminger, J. K., Blair, B. K., & Walker, J. L. (2014). The impact of opening visitation access on patient and family experience. *Journal of Nursing Administration, 44*(7/8), 403-410.

**Polit & Beck Guide to an Overall Critique of a Quantitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title succinctly described the study population as well as the research problem. The study examined patient and family reactions to a system-wide implementation of open access visitation within Baylor Health Care System. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract was clear and concise and summarized the majority of the main features of the report. |
| **Introduction** | Is the problem stated unambiguously and is it easy to identify? Does the problem statement make clear the concepts and the population under study? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a quantitative approach appropriate? | The problem was easily identifiable, the concept of open visitation was clearly stated, and the family and patient were easily identified as the study population. The issue is in fact significant for nursing within the ICU environment of care. A quantitative approach was appropriate for the study. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Literature Review** | Is the literature review thorough, up –to-date, and based mainly on primary sources? Does the review summarize knowledge on the dependent and independent and independent variables and the relationship between them? Does the literature review lay a solid basis for the new study? | The literature review provided a sufficient basis for the study and referenced material in a chronological order dating back to the 1960's and up until 2011. It did identify the dependent and independent variables and their relationship. |
| **Conceptual/ theoretical framework** | Are key concepts adequately defined conceptually? Is there a conceptual/ theoretical framework and is it appropriate? If not, is the absence of one appropriate? | The concepts of the study were not defined conceptually as the subject matter did not require it. The Synergy Model for Patient Care was the theoretical framework and it was appropriate for the study. |
| **Hypothesis or research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | The research question was not explicitly stated; however, by reading the introduction, one can gather the authors' intentions for the study. |
| **Method**<br>**Research design** | Was the most rigorous possible design used, given the study purpose? Were appropriate comparisons made to enhance interpretability of the findings? Was the number of data collection points appropriate? Did the design minimize threats to the internal and external validity of the study? | A performance improvement project was utilized which seemed to be the most rigorous design possible. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Population and sample** | Was the population identified and described? Was the sample described in sufficient detail? Was the best possible sampling design used to enhance the sample's representativeness? Was the sample size adequate? Was a power analysis used to estimate sample size needs? | Thirteen hospitals were invited to participate in the implementation and 12 facilities voluntarily responded. A power analysis was not utilized. The sample was adequately described and included the emergency department, ICU, and inpatient/ outpatient units of the facilities. |
| **Data collection and measurement** | Are the operational and conceptual definitions congruent? Were key variables operationalized using the best possible method (e.g., interviews, observations, and so on)? Were the specific instruments adequately described and were they good choices? Did the report provide evidence that the data collection methods yielded data that were high on reliability and validity? | Visitation rules were published, then guided discussions with local and shared governance councils were conducted prior to implementing open visitation uniformly. IRB approval was not required for the study as data came from ongoing and existing surveys and human subjects were not able to be identified. |
| **Procedures** | If there was an intervention, was it adequately described and was it properly implemented? Were data collected in a manner that minimized bias? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | Self-reported data were collected from nursing leaders via spreadsheets. All assessment data contained measurable criteria in order to quantify the results and remove confusion. |

| Aspect of Report | Basic Questions for a Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Results**<br>**Data analysis** | Were analysis undertaken to address each research question or test each hypothesis? Were appropriate statistical methods used, given the level of measurement of variables, number of groups being compared, and so on? Was the most powerful analytic method used? (e.g., Did the analysis help to control extraneous variables)? | A service-specific and robust assessment based on the newly adopted open visitation policy was compiled with randomized auditing and environmental scanning. |
| **Findings** | Were the findings adequately summarized, with good use of tables and figures? Do the findings provide strong evidence regarding the research questions? Were Type 1 and Type 11 errors minimized? | There were two main figures summarizing findings. Figure 1 depicted open access assessments from the manager's self-audit, percent to ideal access, and figure 2 showed the results on patient and family experience. |
| **Discussion**<br>**Interpretation of findings** | Are all major findings interpreted and discussed within the context of prior research and/or the study's conceptual framework? Are the interpretations consistent with the results and with the study's limitations? Does the report address the issue of the generalizability of the findings? | Although the findings were not discussed within the context of the synergy model directly, they were discussed using the basic themes of the model. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or for further research- and are those implications reasonable and complete? | The researchers did not discuss implications of the study for further research or clinical practice. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Global Issues Presentation** | Was the report well-written, well- organized , and sufficiently detailed for critical analysis? Were you able to understand the study? Was the report written in a manner that makes the findings accessible to practicing nurses? | The report was well organized and allowed for critical analysis. Practicing nurses can easily access the findings of the report. |
| **Summary assessment** | Despite any identified limitations, do the study findings appear to be valid- do you have confidence in the *truth* value of the results? Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline? | The study findings appeared to be valid and truthful. The results of the study could be utilized in a different hospital setting. |

**Appendix B-8**

Riley, B. H., White, J., Graham, S., & Alexandrov, A. (2014). Traditional/restrictive vs patient-centered intensive care unit visitation: perceptions of patients' family members, physicians, and nurses. American journal of critical care, 23(4), 316-324.

**Polit & Beck Guide to an Overall Critique of a Qualitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title succinctly described the study population as well as the research problem. The study examined patient family members and nurse perceptions of traditional vs. restrictive visitation within the ICU. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The main features and concepts of the study were adequately summarized in the abstract. |
| **Introduction** | Is the phenomenon of interest clearly identified? Is the problem stated unambiguously and is it easy to identify? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a qualitative approach appropriate? | The introduction easily introduced and identified the problem as well as described the study population. The problem and methods used were appropriate and utilized a qualitative approach. The problem was indeed significant for ICU families, staff, and patients. |
| **Literature Review** | Does the report summarize the existing body of knowledge related to the problem or phenomenon of interest? Is the literature review adequate? Does the literature review lay a solid basis for the new study? | The literature review was adequate and provided a solid basis for the study and laid a basis for the new study. |

| Aspect of the Report | Basic Questions For A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conceptual underpinnings** | Are key concepts adequately defined conceptually? Is the philosophical basis, underlying tradition, conceptual framework, or ideological orientation made explicit and is it appropriate for the problem? | The conceptual framework for the study was the AACN's patient-centered care approach. |
| **Research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | Research questions were explicitly described and stated. All wording was appropriate and consistent with the conceptual ideas. |
| **Method**<br>**Research design and research tradition** | Is the identified research tradition (if any) congruent with the methods used to collect and analyze data? Was an adequate amount of time spent in the field or with study participants? Did the design unfold in the field, allowing researchers to capitalize on early understandings? Was there evidence of reflexivity in the design? Was there an adequate number of contacts with study participants? | In order to understand barriers, issues as well as perceptions related to traditional vs. restrictive visitation, utilizing a focus group was indeed a rigorous design. The amount of time spent with the study participants was not identified. The authors acknowledged there was a limited amount of male study participants. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Sample and setting** | Was the group or population of interest adequately described? Were the setting and sample described in sufficient detail? Was the approach used to gain access to the site or to recruit participants appropriate? Was the best possible method of sampling used to enhance information richness and address the needs of the study? Was the sample size adequate? Was saturation achieved? | The population was identified and described in sufficient detail. The sample size ideally could have been larger, but the authors had trouble scheduling participation due to the perceived need for the staff and families to stay near the ICU. Male participants were limited in the focus groups. |
| **Data collection** | Were the methods of gathering data appropriate? Were data gathered through two or more methods to achieve triangulation? Did the researcher ask the right questions or make the right observations, and were they recorded in an appropriate fashion? Was a sufficient amount of data gathered? Was the data of sufficient depth and richness? | Separate focus groups for family members, nurses, and physicians were conducted which is an appropriate method for data collection. The sessions were voice recorded and had one group leader and one assistant facilitating. The data were detailed accounts of the participants feelings and thoughts. |
| **Procedures** | Were data collection and recording procedures adequately described and do they appear appropriate? Were data collected in a manner than minimized bias or behavioral distortions? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | All focus group sessions were voice recorded; the training of the facilitators was not discussed. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Results**<br>**Data analysis** | Were the data management (e.g., coding) and data analysis methods sufficiently described? Was the data analysis strategy compatible with the research tradition and with the nature and type of the data gathered? Did the analysis yield an appropriate "product" (e.g., a theory, taxonomy, thematic pattern, etc.)? Did the analytic procedures suggest the possibility of biases? | Focus group sessions were voice recorded; the recordings were analyzed using guidelines developed by Lee et al., Dawson et al., and Miles and Huberman. No biases were discussed. |
| **Findings** | Were the findings adequately summarized, with good use of excerpts? Do the themes adequately capture the meaning of the data? Does it appear that the researcher satisfactorily conceptualized the themes or patterns in the data? Did the analysis yield an insightful, provocative, and meaningful picture of the phenomenon under investigation? | Four tables were utilized to summarize the findings with detailed excerpts: Table 1 illustrated roles in the ICU; Table 2 communication. Table 3 convenience and flexibility of visiting times in the ICU; and Table 4 confidence, trust, and the relationship with nurses and physicians. |
| **Theoretical integration** | Are the themes or patterns logically connected to each other to form a convincing and integrated whole? Were figures, maps, or models used effectively to summarize conceptualizations? If a conceptual framework or ideological orientation guided the study, are the themes or patterns linked to it in cogent manner? | The authors identified themes, broke them down into tables and linked them to the patient-centered care theme. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Interpretation of the findings** | Are the findings interpreted within an appropriate social or cultural context? Are major findings interpreted and discussed within the context or prior studies? Are the interpretations consistent with the study's limitations? Does the report address the issue of transferability of the findings? | The researchers provided information about a gap in the literature surrounding roles, communication, and relationships of ICU patients, physicians, and families and identified solutions that may be applied in working towards patient-centered models. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or further injury- and are those implications reasonable? | The authors identified solutions that may be applied in other ICU environments working towards patient-centered care models. This was a practical approach. |
| **Global Issues Presentation** | Was the report well-written, well-organized, and sufficiently detailed for critical analysis? Was the description of the methods, findings and interpretations sufficiently rich and vivid? | The report was easy to follow, organized appropriately and detailed sufficiently with participants' responses. |
| **Summary Assessment** | Do the study findings appear to be trustworthy- do you have confidence in the truth value of the results? Does the study contribute any meaningful evidence that can be useful to the nursing discipline? | The findings appeared to be valid and truthful. The study results could be applied to practicing professionals in the ICU environment, and in particular, the nursing discipline. |

**Appendix B-9**

Chapman, D. K., Collingridge, D. S., Mitchell, L. A., Wright, E. S., Hopkins, R. O., Butler, J. M., & Brown, S. M. (2016). Satisfaction with elimination of all visitation restrictions in a mixed-profile intensive care unit. *American Journal of Critical Care*, *25*(1), 46-50.

**Polit & Beck Guide to an Overall Critique of a Quantitative Research Report**

| Aspect of the report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The title described the research problem; however, the population was not directly addressed within the title. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract satisfactorily summarized the main features of the report. |
| **Introduction** | Is the problem stated unambiguously and is it easy to identify? Does the problem statement make clear the concepts and the population under study? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a quantitative approach appropriate? | The problem was unambiguously stated under "background" section. The population was addressed toward the end of the abstract. The problem was significant in the ICU or critical care environments. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Literature Review** | Is the literature review thorough, up –to-date, and based mainly on primary sources? Does the review summarize knowledge on the dependent and independent and independent variables and the relationship between them? Does the literature review lay a solid basis for the new study? | The literature review, while not extensive, touched on the major points and was an appropriate segue way for the study. |
| **Conceptual/ theoretical framework** | Are key concepts adequately defined conceptually? Is there a conceptual/ theoretical framework and is it appropriate? If not, is the absence of one appropriate? | The key concept for the basis of the study was patient- and family-centered critical care. There was no theoretical framework utilized. |
| **Hypothesis or research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | The research question was explicitly stated under the "objective" heading, "To determine whether or a transition from a minimally restrictive visitation hours improves satisfaction of patients' family members and whether such a transition affects nurses' satisfaction and nurses' perceptions of satisfaction among patients' families". |
| **Method**<br>**Research design** | Was the most rigorous possible design used, given the study purpose? Were appropriate comparisons made to enhance interpretability of the findings? Was the number of data collection points appropriate? Did the design minimize threats to the internal and external validity of the study? | A prospective observational design in a 24-bed intensive care unit in a tertiary care hospital was utilized for the study. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Population and sample** | Was the population identified and described? Was the sample described in sufficient detail? Was the best possible sampling design used to enhance the sample's representativeness? Was the sample size adequate? Was a power analysis used to estimate sample size needs? | Fifty family surveys were completed during the prechange period and 53 family surveys were complete during the postchange period. Sixty-one nurses completed the survey during the prechange period and 67 completed the postchange survey. |
| **Data collection and measurement** | Are the operational and conceptual definitions congruent? Were key variables operationalized using the best possible method (e.g., interviews, observations, and so on)? Were the specific instruments adequately described and were they good choices? Did the report provide evidence that the data collection methods yielded data that were high on reliability and validity? | Family satisfaction were measured by using a visitor version of the validated survey instrument, "Questionnaires Measuring Satisfaction With Old and New Visitation Policies" and nurse satisfaction was measured using the nurse version of the survey instrument. |
| **Procedures** | If there was an intervention, was it adequately described and was it properly implemented? Were data collected in a manner that minimized bias? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | A convenience sampling technique was utilized and consenting participants were given surveys and instructions and asked to return completed surveys to the ICU secretary in an envelope. |

| Aspect of the Report | Basic Questions for a Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Results**<br>**Data analysis** | Were analysis undertaken to address each research question or test each hypothesis? Were appropriate statistical methods used, given the level of measurement of variables, number of groups being compared, and so on? Was the most powerful analytic method used? (e.g., Did the analysis help to control extraneous variables)? | Nurse and visitor questionnaires were analyzed separately using principal component analysis. Before and after the policy change, component scores were compared using *t* tests and reliability analysis of Cronbach *a* values were utilized to check reliability of the questions and test internal consistency. |
| **Findings** | Were the findings adequately summarized, with good use of tables and figures? Do the findings provide strong evidence regarding the research questions? Were Type 1 and Type 11 errors minimized? | The authors utilized a large table consisting of demographic data for nurses responding to survey before and after change in visitation policy. |
| **Discussion**<br>**Interpretation of findings** | Are all major findings interpreted and discussed within the context of prior research and/or the study's conceptual framework? Are the interpretations consistent with the results and with the study's limitations? Does the report address the issue of the generalizability of the findings? | Generalizability of the findings to other critical care environments was limited by the study's small sample size and convenience sampling techniques. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or for further research- and are those implications reasonable and complete? | The researchers stated unrestricted visitation improved family satisfaction in a large, mixed-profile ICU and findings supported unrestricted visitation as part of patient- and family-centered critical care. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Global Issues Presentation** | Was the report well-written, well- organized , and sufficiently detailed for critical analysis? Were you able to understand the study? Was the report written in a manner that makes the findings accessible to practicing nurses? | The report was well organized and allowed for critical analysis. Practicing nurses can easily access the findings of the report. |
| **Summary assessment** | Despite any identified limitations, do the study findings appear to be valid- do you have confidence in the *truth* value of the results? Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline? | The study findings appeared to be valid and truthful. The results of the study could be utilized in a different hospital setting. |

**Appendix B-10**

Monroe, M., & Wofford, L. (2017). Open visitation and nurse job satisfaction: An integrative review. *Journal of Clinical Nursing, 26*(23/24), 4868-4876

**Polit & Beck Guidelines for Critiquing Integrative Reviews**

| | | |
|---|---|---|
| **The Problem** | Does the review clearly state the research problem and/or research questions? Is the topic of the review important for the nursing profession? Is the scope of the review appropriate? Are concepts, variables or phenomenon adequately defined? | The review was clearly stated under the aims and objectives heading. The topic of review was particularly important for nurses practicing within ICUs. The scope of the review was appropriate. |
| **Search Strategy** | Does the review clearly define describe the criteria for selecting primary studies, and are those criteria reasonable? Are the databases the reviewers used identified, and are they appropriate? Are key words identified, and are they appropriate? Did the reviewers use adequate supplementary efforts to identify relevant studies, including non-published studies? | A literature search was performed through CINAHL Complete, MEDLINE Complete, PubMed, ScienceDirect, Academic Search Premier and PsychINFO which was appropriate. Key terms included visitors to patients, nurse attitudes, and critical care. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **The Sample** | Did the search strategy yield an adequate sample of studies? Did the studies include an adequate sample of participants? If an original report was lacking key information did the reviewers attempt to contact the original researchers for additional information- or did the study have to be excluded? If studies were excluded for reasons other than insufficient information, did the reviewers provide a rational for the decision? Did the reviewers retrieve primary source materials (i.e, the actual study reports), or did they draw their data from secondary sources? | Thirty-two articles were yielded from the literature search. Exclusion criteria included pediatric intensive care, noncritical care, and non-English articles. The studies utilized included an adequate number of participants. It appeared that primary source materials were utilized. |
| **Quality Appraisal** | Did the reviewers determine the methodologic comparability of the studies in the review? Did the reviewers use appropriate procedures for appraising the quality of individual studies? Were formal criteria used in the appraisal, and were those criteria explicit? Were the criteria appropriate for the type of studies in the sample? Did two or more raters do the appraisals, and was interrater reliability reported? | The reviewers took each article and evaluated each for data quality using Joanna Briggs Institute (JBI) critical appraisal tools. The tools' purpose was to assess methodological quality to determine whether a study has acknowledged possible bias. After extensive peer review, the JBI Scientific Committee had approved the JBI critical appraisal tools (Joanna Briggs Institute 2016). |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **The Data Set** | Were two or more coders used to extract and record information for analysis? Was adequate information extracted about substantive, methodologic, and administrative aspects of the study? Was sufficient information extracted to permit subgroup analysis (if appropriate)? In a meta-analysis, was it possible to compute effect sizes for a sufficient number of studies in the sample? | The reviewers used pattern recognition to identify themes throughout the literature review. Three themes emerged which were<br>visitors are essential, visitors as helpers, and visitors as disruptors. |
| **Data Analysis** | Do the reviewers explain their method of pooling and integrating their data? In a meta-synthesis, do the reviewers describe the techniques they used to compare the findings of each study, and do they explain their method of interpreting their data? Was the analysis of data objective and thorough? Were appropriate procedures used to address differences in methodologic quality among studies in the sample? Were appropriate subgroup analyses undertaken-or was the absence of subgroup analyses justified? | The reviewers used pattern recognition to identify themes throughout the literature review; no further information was provided. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conclusions** | Did the reviewers draw reasonable conclusions about the quality, quantity, and consistency of evidence? In a metasynthesis, did the synthesis achieve a fuller understanding of the phenomenon to advance knowledge? Are limitations of the review noted? Are implications for nursing practice and further research clearly stated? | The reviewers noted that the literature review included studies from Australia, the Balearic Islands, Egypt, France, Greece, Saudi Arabia, the United Kingdom, and the United States of America. They cautioned the results should be generalized and transferred to other ICUs with care and consideration of location. The reviewers also noted they included 14 articles which may have not adequately portrayed an accurate representation of the ICU nurse population. The review identified multiple elements of open visitation that may affect nursing satisfaction and may be used to improve nurses' attitudes towards family visitation. Units considering moving towards open visitation could consider potential barriers and develop ways to avoid those issues. Units already practicing open visitation could utilize the information to acknowledge the challenges nurses face while attempting to improve the work environment. |

**Appendix B-11**

Kozub, E., Scheler, S., Necoechea, G., & O'Byrne, N. (2017). Improving nurse satisfaction with open visitation in an adult intensive care unit. *Critical care nursing quarterly, 40*(2), 144-154.

**Polit & Beck Guide to an Overall Critique of a Quantitative Research Report**

| Aspect of the Report | Basic Questions for a Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Title** | Was the title a good one, suggesting the research problem and the study population? | The study population as well as the research problem was easily inferred by reading the title of the article. |
| **Abstract** | Does the abstract clearly and concisely summarize the main features of the report? | The abstract accurately summarized the report. |
| **Introduction** | Is the problem stated unambiguously and is it easy to identify? Does the problem statement make clear the concepts and the population under study? Does the problem have significance for nursing? Is there a good match between the research problem and the paradigm and methods used? Is a quantitative approach appropriate? | A quantitative approach was utilized for the study. The problem statement was clear and easily understood. ICU nurses and family visitation is a significant issue in the nursing world. |
| **Literature Review** | Is the literature review thorough, up –to-date, and based mainly on primary sources? Does the review summarize knowledge on the dependent and independent and independent variables and the relationship between them? Does the literature review lay a solid basis for the new study? | The literature review laid a solid basis for the new study and was based on primary and reliable sources. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Conceptual/ theoretical framework** | Are key concepts adequately defined conceptually? Is there a conceptual/ theoretical framework and is it appropriate? If not, is the absence of one appropriate? | The framework for the study was PFCC (patient and family centered care) and it was thoroughly defined and discussed. |
| **Hypothesis or research questions** | Are research questions and/ or hypotheses explicitly stated? If not, is there absence justified? Are questions and hypothesis appropriately worded? Are the questions/ hypothesis appropriately worded? Are the questions/ hypothesis consistent with the literature review and the conceptual framework? | Yes, the research questions as well as hypotheses were discussed and appropriately worded and discussed in the context of PFCC framework. |
| **Method**<br>**Research design** | Was the most rigorous possible design used, given the study purpose? Were appropriate comparisons made to enhance interpretability of the findings? Was the number of data collection points appropriate? Did the design minimize threats to the internal and external validity of the study? | A performance improvement project was under -taken and many changes were implemented including staff guidelines for visitation, utilizing white communication boards, and also conducting baseline and postimplementation surveys. The design was rigorous. |
| **Population and sample** | Was the population identified and described? Was the sample described in sufficient detail? Was the best possible sampling design used to enhance the sample's representativeness? Was the sample size adequate? Was a power analysis used to estimate sample size needs? | Out of 98 SICU nurses, 36 nurses participated in the pre-implementation survey and 50 participated in the post-implementation survey. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Data collection and measurement** | Are the operational and conceptual definitions congruent? Were key variables operationalized using the best possible method (e.g., interviews, observations, and so on)? Were the specific instruments adequately described and were they good choices? Did the report provide evidence that the data collection methods yielded data that were high on reliability and validity? | The PI project utilized a framework that followed the change acceleration process that includes implementation of the steps of Define, Measure, Analyze, Improve and Control. |
| **Procedures** | If there was an intervention, was it adequately described and was it properly implemented? Were data collected in a manner that minimized bias? Were data collection staff appropriately trained? Were appropriate procedures used to safeguard the rights of study participants? | A survey was administered to gather baseline data which included yes/no questions and the respondents could also leave additional comments or not selecting a response. Staff were then resurveyed six months post-implementation of visitation guidelines using the same survey administered pre-implementation. |
| **Results**<br>**Data analysis** | Were analysis undertaken to address each research question or test each hypothesis? Were appropriate statistical methods used, given the level of measurement of variables, number of groups being compared, and so on? Was the most powerful analytic method used? (e.g., Did the analysis help to control extraneous variables)? | The surveys were staff generated and did not undergo psychometric testing for validity and reliability. The baseline survey was statistically analyzed using Fischer exact test. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Findings** | Were the findings adequately summarized, with good use of tables and figures? Do the findings provide strong evidence regarding the research questions? Were Type 1 and Type 11 errors minimized? | The findings were adequately summarized and utilized four tables and three figures. |
| **Discussion Interpretation of findings** | Are all major findings interpreted and discussed within the context of prior research and/or the study's conceptual framework? Are the interpretations consistent with the results and with the study's limitations? Does the report address the issue of the generalizability of the findings? | The major findings of the study were discussed within the PFCC context. |
| **Implications/ recommendations** | Do the researchers discuss the implications of the study for clinical practice or for further research- and are those implications reasonable and complete? | Implications for clinical practice were made including communicating that the nurse can customize visitation to their needs/liking. Developing guidelines for visitation and utilizing scripting prompts were helpful in supporting staff. Nurses were encouraged to identify staff member mentors for difficult situations and to anticipate challenges adopting to new visitation hours and environment which are reasonable. |

| Aspect of the Report | Basic Questions for A Critique | Detailed Critiquing Guidelines |
|---|---|---|
| **Global Issues Presentation** | Was the report well-written, well- organized, and sufficiently detailed for critical analysis? Were you able to understand the study? Was the report written in a manner that makes the findings accessible to practicing nurses? | The study was easily understandable and detailed. Findings are easily accessible to nurses and medical professionals. |
| **Summary assessment** | Despite any identified limitations, do the study findings appear to be valid- do you have confidence in the *truth* value of the results? Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline? | The results appeared valid and truthful. The findings of the study could help contribute to easier implementation and creation of open visitation in other ICUs. |

## Appendix C

## Cross Table Analysis

| Author | Key Findings | Recommendations |
|---|---|---|
| Hepworth et al. | -Family presence in the ICU can influence a patient's physiological response.<br>-The concomitant TSA of the effect of family on ICP indicated family presence may be associated with decreased ICP.<br>-Overall effect on blood pressure was insignificant and heart rate overall may increase with family presence. | Since family presence did not have negative effect on a patient's physiologic-al responses and lowered ICP, more hospitals should consider a more lenient visitation policy in the ICU. For facilities that monitor ICP trending, visitation could be assessed on an individual patient response basis. |
| Livesay et al. | -Implementing and enforcing a uniform visitation policy may decrease frustration and dissatisfaction of the ICU nurse as well as their patient and families.<br>-Vast variability in nurses' interpretation and implementation of open visitation policy can create inconsistencies and frustration and confusion. | ICUs should create and enforce an institutional definition of "open visiting hour" for their unit. |

| Author | Key Findings | Recommendations |
|---|---|---|
| Kirchhoff et al. | -Regarding visitation policy, there was significant variation by unit type and size for the surveyed hospitals.<br>-Options listed were open on a scheduled basis only, open except for rounds/ shift changes, open at all times, and the option to write in a response. Of the adult intensive care units, most (44%) were open on a scheduled basis only, with (31%) open except for rounds and/or changes in shift.<br>-Only a small percentage of units (14%) were open at all times. | Data from the AACN survey has important implications for critical care nursing and can be used for benchmarking.<br>Study results can be queried as issues develop in an ICU so one can see what others in a similar situation have done when faced with issues such as nursing staffing or end of life issues. |
| Lee et al. | -Open visitation in the ICU may help in meeting both patient and family needs; however, nurses identified barriers associated with open visitation.<br>-Three major areas of concern were identified by nursing staff regarding open visitation including space, conflict, and burden; solutions were offered. | Nursing apprehensions associated with an unrestricted ICU were identified and solutions were offered that may suggest direction for other ICUs considering implementing an open visiting hours policy. |
| Hart et al. | -ICU family visitation should be flexible and open.<br>-Open visitation may produce long term benefits of family satisfaction, improved patient outcomes, and increased nurse-patient-family interactions | Flexible and open visitation should be utilized in the ICU setting and possibly tailor a plan specific to each patient and family upon admission. |
| Liu et al. | -Majority of US ICUs within the study in 2008 had restrictive visitation policies. | Great variability in visitation policies warrants further investigation on the impact of visitation on outcomes for standardization of practice. |

| Author | Key Findings | Recommendations |
|---|---|---|
| Nuss et al. | -Family participation in care is hindered by restrictive visiting hours.<br>-After implementing a system-wide approach for open visitation, data collected from 13 hospitals showed both patients and families felt more informed and the nursing staff were respectful and offered understandable explanations for family. | Open access visitation can enhance patient centered care and can create a positive impact on the family partnership in care. The authors outlined the resources needed to deploy these changes as well as the iterative process |
| Riley et al. | -The patient-centered paradigm is supported within the ICU by professional nursing organizations for critical care nursing and medicine.<br>-Nurses' and physicians' communication, concern, compassion, closeness, and flexibility were identified as facilitators of the patient-centered paradigm. | Patient-centered care is beneficial for patients, families and health care providers, and the authors give direction to implement interventions to move toward patient-centered, family supportive ICU services. |
| Chapman et al. | -While many critical care units have restricted visitation, open and patient tailored visitation has been recommended as the preferred visitation model.<br>-Both family satisfaction and nurses' perceptions of family satisfaction were improved with removal of even minor restrictions of visitation hours. | Unrestricted visitation should be included as part of patient- and-family-centered critical care. |

| **Author** | **Key Findings** | **Recommendations** |
|---|---|---|
| Monroe et al. | -Open visitation in the ICU is beneficial for patients and families but can affect nurses' work environment.<br>-Utilizing evidence-based strategies to reduce nurses' stress and workload associated with open visitation can improve their level of job satisfaction in the ICU environment. | Visitation policies that support nurses in managing the additional work and stress of meeting patient and family needs is supported through the literature evidence. Utilization of evidence-based strategies to support nursing staff in stressful ICU environments can improve job satisfaction. |
| Kozub et al. | -There is a movement in healthcare toward patient-and family centered-care and PFCC improves long term health outcomes.<br>-Staff guidelines for family visitation can improve nurses' satisfaction with PFCC.<br>-After adoption of staff guidelines for family visitation, nurses' overall mean stress level with PFCC decreased. | Implications for clinical practice were made including communicating that the nurse can customize visitation to his/her needs/liking. Developing guidelines for visitation and utilizing scripting prompts were helpful in supporting staff. Nurses were encouraged to identify staff member mentors for difficult situations and to anticipate challenges adopting to new visitation hours and environment which are reasonable. |