Effective communication and collaboration are critical for a healthy nurse practice environment and safe patient care. The Institute of Medicine (IOM, 2004) report, *Keeping Patients Safe: Transforming the Work Environment for Nurses*, reminds all nurse leaders about their role in creating practice environments with effective communication and collaboration. Yet, in a recent nationwide study, administrative supervisors, the nurse leaders on the evening, night, and weekend shifts, articulated a “disconnect,” poor communication, and lack of collaboration with the daytime nursing leadership team (Weaver & Lindgren, 2017). The supervisors explained that communication with these daytime leaders is by email during their shift because they typically don’t see them (Weaver, 2016). Further, the supervisors are not able to attend the daytime leadership meetings due to the hours they work (Weaver & Lindgren, 2017). For more than 100 years, the administrative/house supervisor role has existed in hospitals and continues to be the current model of off-shift management in acute care hospitals (Editor’s Miscellany, 1901). During these times, the nursing leadership team consisting of nursing unit-based managers, directors, and administrators are not typically present in the hospital. Since research was lacking on the administrative supervisor role, the aforementioned nationwide, qualitative study was conducted to explore the administrative supervisors’ perspectives of their managerial practices and how these practices contribute to nurse and patient safety (Weaver & Lindgren, 2017; Weaver, Lindgren, Cadmus, Flynn, & Thomas-Hawkins, 2017). The overall theme identified in the study was the administrative supervisor does whatever is necessary to get the patients, staff, and hospital safely through the shift (Weaver & Lindgren, 2017). Regardless of the size or location of the hospital, the findings revealed the administrative supervisors...
Achieve nurse and patient safety when performing their role responsibilities (staffing, patient flow, crisis management, and hospital representative) and by establishing trust with the staff, doing rounds, educating, and providing support to the staff (Weaver & Lindgren, 2017; Weaver et al., 2017).

The administrative supervisors also identified they rarely have face-to-face collaboration with the daytime leaders and are unable to attend the management meetings because these meetings are typically held in the middle of the day (Weaver & Lindgren, 2017). The supervisors further explained that “Monday morning quarterbacking” occurs, by the daytime nurse leaders, regarding the decisions made during the off-shift and this contributes to the disconnect, because the supervisors are not there during the daytime to share the rationale for their actions and decisions (Weaver & Lindgren, 2017). Administrative supervisors have authority only during their shift, and otherwise no authority outside of their shift, which may also contribute to this disconnect. Additionally, the supervisors suggested there may be a lack of understanding of the work they do, and may be considered by some as simply the “behind the scenes crew” (Weaver & Lindgren, 2017, p. 6).

Thus, to better understand this disconnect and lack of collaboration, this study was conducted to examine collaboration between administrative supervisors and nursing unit-based managers and the relationship to the nurse outcomes of job satisfaction and intent to leave and stay.

**Review of the Literature**

Collaboration between professionals has been linked to improved nurse and patient outcomes (Galletta, Portoghese, Battistelli, & Leiter, 2013; Ma, Park, & Shang, 2018; Ma, Shang, & Bott, 2015; Ma & Stimpfel, 2018). Nurse-to-nurse collaboration has been defined as “an interpersonal relationship between and among colleagues defined by the commonality of a goal recognized by each party, shared authority, power, and decision making, based on knowledge and expertise” (Dougherty & Larson, 2010, pp. 18-19). The American Nurses Association (ANA, 2015) identifies collaboration as a standard of practice, and defines collaboration as a partnership to achieve common goals with recognition of each person’s knowledge and responsibilities. Furthermore, the American Organization of Nurse Executives’ (2005) competencies for nurse executives include communication and relationship building, particularly the importance of effective communication, building trust, and having collaborative relationships.

Individual readiness, opportunity to collaborate, competence in clinical practice, excellent communication skills, mutual respect, and recognition of the need for interdependence are antecedents to collaboration, while the barriers are hierarchal structures in hospitals (Emich, 2018; Henneman, Lee, & Cohen, 1995; McKay & Crippen 2008; Stichler, 1995; Wells, Johnson, & Salyer, 1998). Considerable research has been conducted on nurse-physician collaboration (Boone, King, Gresham, Wahl, & Suh, 2008; Bowles et al., 2016; Galletta, Portoghese, Carter, D’Aloja, & Campagna, 2016), nurse-nurse practitioner collaboration (Moore & Prentice, 2013), and nurse-pharmacist collaboration (Almkuist, 2018; Feldman et al., 2012; Pherson, Roth, Nkimbeng, Boyd, & Szanton, 2018), and findings regarding these collaborative relationships reveal improved processes and nurse and patient outcomes and highlighted the importance of face-to-face interaction and communication (Moore & Prentice, 2013). Yet, collaboration between administrative supervisors and the daytime nurse leaders such as nursing unit-based managers has yet to be explored. Therefore, the aim of this study was to describe collaboration between administrative supervisors and nursing unit-based managers and to examine the relationship of their collaboration to the nurse outcomes of job satisfaction and intent to leave and stay.

**Method**

A cross-sectional study was conducted to describe collaboration between administrative supervisors and nursing unit-based managers and examine the impact on nurse outcomes of job
satisfaction, intent to leave, and intent to stay. After institutional review board approval, administrative supervisors and nursing unit-based managers who were currently employed at nine acute care hospitals within a large healthcare system in the Mid-Atlantic region of the United States were sent an email with a SurveyMonkey® link inviting them to participate in this study. Reminder emails were sent during the study period, April through June 2017, based on the Dillman method (Dillman, Smyth, & Christian, 2014).

Survey Instruments

The survey instruments included the Collaborative Behavior Scale-Nurse Manager (CBS) and job satisfaction, intent to leave and stay, and demographic questions. The CBS was used to measure the extent of collaborative behaviors between administrative supervisors and nursing unit-based managers (Stichler, 2013). This tool has 20 questions on a four-point Likert scale (1=rarely to 4=nearly always). The reliability and validity of the CBS has been established in the nursing literature, with Cronbach’s alpha from 0.96 to 0.98 (Almost & Laschinger, 2002; Beisel, 1998; Lamont, Brunero, Lyons, Foster, & Perry, 2015; Stichler, 2013).

Job satisfaction was measured with two questions: “How satisfied are you with being a nurse leader?” and “How likely are you to recommend nursing leadership as a career choice to other nurses?” (Warshawsky & Havens, 2014; Warshawsky, Wiggins, & Rayens, 2016). Response options for both items follow a six-point Likert scale (1=very dissatisfied/unlikely to 6=very satisfied/likely).

Intent to leave was measured with three questions which were created and used in nurse manager research: (a) “I have been thinking about leaving my job,” (b) “I have been actively looking for a new job,” and (c) “I intend to leave my job in the next year” (McGuire, Houser, Jarrar, Moy, & Wall, 2003; Warshawsky et al., 2016). Responses to these questions were on a three-point Likert scale: disagree (1), neutral (2), agree (3). Cronbach’s alpha for this scale was 0.86 (Warshawsky et al., 2016).

Intent to stay was assessed with a single question asking participants to indicate the number of years they plan to remain in their current position. This question was created and used in research on the nurse manager role (Warshawsky & Havens, 2014; Warshawsky et al., 2016).

Data Analysis

Descriptive statistics were used to describe the study variables and sample demographics. Data were analyzed using SPSS version 22.0. Correlations were used to assess the association between the variables and independent samples t-test was performed to test the difference between the means of the two groups (administrative supervisors and nursing unit-based managers), with a significance level of α = 0.05.

Results

Forty-one administrative supervisors (response rate 55%) and 72 nursing unit-based managers (response rate 48%) responded to the survey. The participants worked at nine acute care hospitals, part of a large health system in the Mid-Atlantic region, which were primarily non-profit (89%), non-teaching (44%), 150-499 beds (78%), and seven hospitals (78%) had Magnet® designation. The administrative supervisors and nursing unit-based managers were distributed similarly by age, gender, and years worked as a registered nurse (RN) (see Table 1). The respondents differed by tenure in position that nursing unit-based managers worked fewer years (6.3) compared with administrative supervisors (10.6), and highest educational attainment, in that 47% of the managers had an MSN or higher compared to 26% of the administrative supervisors. As shown in Table 1, all nursing unit-based managers held a BSN or higher degree, whereas six administrative supervisors, age 44-56, had a RN diploma or associate degree as their highest level of education.

Regarding job satisfaction, the two groups were similar in terms of satisfaction with being a nursing leader (80% of administrative supervisors and 75% of nursing unit-based managers indicated they were
Table 1. Administrative Supervisor and Nursing Unit-Based Manager Demographics

<table>
<thead>
<tr>
<th></th>
<th>Administrative Supervisor (n=41)</th>
<th>Nursing Unit-Based Manager (n=72)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Mean (SD) 51 (10)</td>
<td>Mean (SD) 51 (8)</td>
</tr>
<tr>
<td>Range</td>
<td>30-66</td>
<td>32-69</td>
</tr>
<tr>
<td>Years as RN</td>
<td>Mean (SD) 26 (11)</td>
<td>Mean (SD) 25 (10)</td>
</tr>
<tr>
<td>Years in current position</td>
<td>Mean (SD) 10.6 (10)</td>
<td>Mean (SD) 6.29 (6)</td>
</tr>
<tr>
<td>Gender</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Male</td>
<td>4 (12)</td>
<td>6 (8)</td>
</tr>
<tr>
<td>Female</td>
<td>34 (83)</td>
<td>62 (86)</td>
</tr>
<tr>
<td>Highest Nursing Degree</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>RN diploma/Associate degree</td>
<td>6 (15)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>22 (54)</td>
<td>33 (46)</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>10 (24)</td>
<td>31 (43)</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>1 (2)</td>
<td>3 (4)</td>
</tr>
<tr>
<td>National Nursing Certification</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Yes</td>
<td>24 (59)</td>
<td>54 (75)</td>
</tr>
</tbody>
</table>

Figure 1. Satisfaction of Administrative Supervisors and Nursing Unit-Based Managers

How satisfied are you with being a nurse leader?

- Dissatisfied and Very Dissatisfied
- Somewhat Dissatisfied
- Somewhat Satisfied
- Very Satisfied and Satisfied

Nursing Unit-Based Managers (n=71) Administrative Supervisors (n=40)
very satisfied or satisfied) (see Figure 1), and recommending nursing leadership as a career choice to others (68% of administrative supervisors and 61% of nursing unit-based managers indicated they would very likely or likely to recommend) (see Figure 2). The job satisfaction scores were almost identical with 4.83 for administrative supervisors and 4.82 for nursing unit-based managers. For intent to stay, the majority of administrative supervisors (57%) and nursing unit-based managers (68%) indicated they only plan to stay in their current position for 5 years or less (see Figure 3). Yet, all the nursing unit-based managers and the majority of administrative supervisors (65%) disagreed or were neutral to the three intent-to-leave questions.

Regarding collaboration, nursing unit-based managers had higher CBS scores than administrative supervisors (see Table 2), indicating the nursing unit-based managers perceived a more collaborative relationship with administrative supervisors than the supervisors perceived with nursing unit-based managers. An independent-samples t-test was conducted to compare the collaboration scores for nursing unit-based managers and administrative supervisors. There was no
significant difference in scores for nursing unit-based managers and administrative supervisors ($t (111) = (-)1.188, p = 0.237$). The relationship of these nurse leaders’ collaboration scores was also examined with age and years in their position, uncovering that nursing unit-based managers who perceived high collaboration with administrative supervisors were younger ($r = (-).259, p < 0.05$) and newer in their position ($r = (-).295, p < 0.05$).

Regarding the relationship between these nurse leaders’ collaboration scores and job satisfaction, a statistically significant relationship was found between perceived high collaboration and greater job satisfaction, for both administrative supervisors ($r = 0.649, p < 0.01$) and nursing unit-based managers ($r = 0.460, p < 0.01$) (see Tables 3 & 4). To further examine the relationship between collaboration and job satisfaction, the collaboration scores for administrative supervisors and nursing unit-based managers was divided into two groups, those with low collaboration scores (<59) and those with high collaboration scores (>60). There was a significant difference in scores for nursing unit-based managers and administrative supervisors with high and low collaboration scores and their job satisfaction ($t (111) = (-)5.194, p < 0.05$).

The relationship between administrative supervisors and nursing unit-based managers job satisfaction and intent to leave and stay was examined. Those who perceived high collaboration had lower intent to leave for both administrative supervisors ($r = (-).562, p < 0.01$) and nursing unit-based managers ($r = (-).454, p < 0.01$). The administrative supervisors

<table>
<thead>
<tr>
<th>CBS Score</th>
<th>Administrative Supervisors Mean (SD)</th>
<th>Nursing Unit-Based Managers Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>59.73 (16.63)</td>
<td>63.6 (16.62)</td>
</tr>
<tr>
<td>Range</td>
<td>20-80</td>
<td>22-80</td>
</tr>
</tbody>
</table>

CBS = Collaborative Behavior Scale-Nurse Manager

### Table 2. Collaboration Scores

### Table 3. Correlations: Administrative Supervisors

<table>
<thead>
<tr>
<th>Administrative Supervisors</th>
<th>Mean (SD)</th>
<th>Correlation Coefficient (r)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Collaboration Score</td>
<td>Cronbach's $\alpha 0.98$</td>
<td>59.73 (16.63)</td>
<td>0.649**</td>
<td>(-)0.562**</td>
<td>0.276</td>
<td>(-)0.024</td>
<td>0.054</td>
</tr>
<tr>
<td>2. Job Satisfaction Score</td>
<td>Cronbach's $\alpha 0.91$</td>
<td>4.83 (1.25)</td>
<td>(-)0.762**</td>
<td>0.507**</td>
<td>0.164</td>
<td>0.175</td>
<td></td>
</tr>
<tr>
<td>3. Intent to Leave</td>
<td>Cronbach's $\alpha 0.84$ Range 3-9</td>
<td>4.4 (1.86)</td>
<td>(-)0.463**</td>
<td>(-)0.048</td>
<td>(-)0.142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Intent to Stay in Current Position</td>
<td>Range &lt;1 year - 20 years</td>
<td>6.6 years (4.6)</td>
<td>(-)0.047</td>
<td>(-)0.026</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Age</td>
<td>50.6 (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.719**</td>
</tr>
<tr>
<td>6. Years in Position</td>
<td>10.6 (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level  
*Correlation is significant at the 0.05 level
with higher job satisfaction had lower intent to leave ($r = (-)0.762$, $p < 0.01$) and higher intent to stay in their position ($r = 0.507$, $<0.01$). Additionally, the nursing unit-based managers with higher job satisfaction had lower intent to leave ($r = (-)0.362$, $p < 0.01$).

**Discussion**

The administrative supervisors and nursing unit-based managers who participated in this study were experienced nurse leaders with an average of 6 and 10 years in their current positions and the majority had attained national nursing certification. The nursing unit-based managers were well-educated with all having a BSN or higher degree, whereas, 15% of the administrative supervisors had a diploma or associate degree, their entry-level nursing degree. The IOM (2010) report, *The Future of Nursing: Leading Change, Advancing Health*, specifies the proportion of nurses with a baccalaureate degree should be increased and nurses with associate and diploma degrees should be encouraged to enter baccalaureate nursing programs within 5 years of graduation. The IOM (2010) further recommends nurses should achieve higher levels of education and training. Thus, it is concerning that the majority of administrative supervisors (69%) have entry-level education. Considering collaboration is based on knowledge and expertise, administrative supervisors need to have the same education as nursing unit-based managers, and organizations should ensure the educational requirements for these positions are similar (ANA, 2015; Dougherty & Larson, 2010). Administrative supervisors must no longer be viewed as simply nurses covering until daytime leaders return, but as nurse leaders with the knowledge and expertise to achieve organizational goals. As the nurse leaders on the evening and night shifts, administrative supervisors are role models for the evening and night shift staff and should embrace lifelong learning and continue their education.

Administrative supervisors perceived a less-collaborative relationship with the nursing

<table>
<thead>
<tr>
<th>Nursing Unit-Based Managers</th>
<th>Mean (SD)</th>
<th>Correlation Coefficient (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration Score</td>
<td>Cronbach's $\alpha$ 0.98</td>
<td>63.6 (16.62)</td>
</tr>
<tr>
<td>Job Satisfaction Score</td>
<td>Cronbach's $\alpha$ 0.91</td>
<td>4.82 (1.16)</td>
</tr>
<tr>
<td>Intent to Leave</td>
<td>Cronbach’s alpha 0.84 Range 3-6</td>
<td>4.17 (1.27)</td>
</tr>
<tr>
<td>Intent to Stay in Current Position</td>
<td>Range &lt;1 year - 25 years</td>
<td>6.56 (5.36)</td>
</tr>
<tr>
<td>Age</td>
<td>50.9 (8)</td>
<td>0.273*</td>
</tr>
<tr>
<td>Years in Position</td>
<td>6.3 (6)</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level**

*Correlation is significant at the 0.05 level*
unit-based managers, which supports the disconnect and lack of collaboration with the daytime nursing leadership team noted in previous research by Weaver and Lindgren (2017). Further research and discussion should ensue to explore nursing unit-based managers’ and administrative supervisors’ perspectives and experiences with collaboration and delve into why supervisors perceived a less-collaborative relationship. Collaboration between administrative supervisors and nursing unit-based managers should be valued by organizational leaders just as the value of nurse manager peer collaboration, with frequent meetings, collegiality, and information sharing, was recognized by hemodialysis unit nurse managers (Flynn, Thomas-Hawkins, & Bognar, 2016).

Chief nursing officers should ensure organizational structures support peer collaboration and that administrative supervisors and nursing unit-based managers have opportunities and time to interact. Education sessions should be held on how to collaborate and improve communication and each other’s role responsibilities, along with discussions regarding whether administrative supervisors and nursing unit-based managers view themselves as peers. Then further initiatives can be undertaken to foster collaboration between supervisors and managers, with scheduled meetings and joint workshops that focus on innovative ways for supervisors and managers to collaborate.

Additionally, collaboration may be better promoted between administrative supervisors and nursing unit-based managers by improving change of shift report or hand-off through face-to-face interaction or telephone communication. When a nursing unit-based manager discusses an issue on the unit with a supervisor, such as a high-acuity patient or a new charge nurse, or an administrative supervisor discusses a patient fall that occurred on the manager’s unit, this collaboration benefits the organization, the workforce, and ultimately the patient.

Administrative supervisors and nursing unit-based managers who perceived high collaboration, recognizing the importance of having an interpersonal relationship with colleagues, had greater job satisfaction. Additionally, nursing unit-based managers who perceived high collaboration with administrative supervisors were younger and newer in their position. Perhaps these new managers recognized the value of collaborating with an experienced administrative supervisor or even had an experienced supervisor as their mentor. For a better understanding of the supervisor and manager role and thus fostering collaboration, chief nursing officers should consider requiring new administrative supervisors and nursing unit-based managers to orient a day in the other role.

The majority of administrative supervisors and nursing unit-based managers were satisfied or very satisfied with their jobs and likely or very likely to recommend nursing leadership as a career, which is consistent with other nurse manager research findings (Warshawsky & Havens, 2014, Warshawsky et al., 2016). This study found collaboration influenced nurse manager job satisfaction and Lee and Cummings (2008) also found span of control, organizational support, and empowerment influenced their job satisfaction. Research is lacking on what influences administrative supervisor job satisfaction; however, a recent study found administrative supervisors working at Magnet hospitals were more satisfied than those supervisors at non-Magnet hospitals (Weaver et al., 2018).

Succession planning is needed particularly because the majority of administrative supervisors and nursing unit-based managers indicated they only plan to stay in their current position for 5 years or less. Although these nurse leaders indicated satisfaction, it is important to investigate why 31% of the nursing unit-based managers and 17% of supervisors were somewhat reluctant to recommend leadership as a career. And considering the findings linking higher job satisfaction and collaboration with lower intent to leave, nurse leaders should work to retain these leaders by fostering a satisfying and collaborative work environment.

Much additional research is needed beginning with exploring administrative
supervisors’ and nursing unit-based managers’ perspectives about their peer collaboration. Research implementing an intervention to improve collaboration between administrative supervisors and nursing unit-based managers and examining the impact on nurse and patient outcomes is necessary. And finally, further research on the administrative supervisor role is needed such as understanding their practice environment, what influences their job satisfaction, and examining the relationship between their collaboration with nursing unit-based managers and impact on the evening and night shift staff and unit performance.

**Limitations**

A limitation of this study is the participants were a voluntary convenience sample of administrative supervisors and nursing unit-based managers who worked at acute care hospitals which were part of a large healthcare system in the Mid-Atlantic region of the United States; their perceptions may not reflect the perceptions of supervisors and managers in other parts of the state or country. The participants in this study self-reported their perceptions which may not represent the actual state of collaboration. Furthermore, this convenience sample may reflect highly motivated supervisors and managers and may not be representative of those who are less engaged in their role.

**Conclusion**

This is the first research study to describe collaboration between administrative supervisors and nursing unit-based managers and to examine the relationship of their collaboration to the nurse outcomes of job satisfaction and intent to leave and stay. Findings suggest that fostering collaboration between administrative supervisors and nursing unit-based managers should be considered an important strategy for improving job satisfaction and retention of these nurse leaders. This research demonstrates chief nursing officers should invest in improving collaboration between administrative supervisors and nursing unit-based managers by holding sessions to promote a mutual understanding of roles and discussions on ways to improve communication and collaboration. Additionally, chief nursing officers should support collaboration by ensuring supervisors and managers have opportunities to collaborate and restructuring the nursing leadership meetings to allow administrative supervisors to attend.

Administrative supervisors need to be encouraged to continue their education and job descriptions for administrative supervisor and nursing unit-based managers should have similar educational requirements, with at least a BSN degree required and MSN degree preferred. Considering the average age of the administrative supervisors and nursing unit-based managers was 51 years, succession planning is needed and younger clinical nurses need to be encouraged to consider these leadership positions.

All nurse leaders have an important role in creating practice environments with effective communication and collaboration. Since administrative supervisors and nursing unit-based managers are the vital link between clinical nurses and senior nurse leaders, creating and fostering collaborative work environments is critical in achieving high-quality patient care and common goals of nurse and patient safety.

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