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# THE JOURNAL OF BSN HONORS RESEARCH

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UNIVERSITY OF KANSAS SCHOOL OF NURSING BACHELOR OF SCIENCE IN NURSING HONORS PROGRAM

<http://archie.kumc.edu/handle/2271/1333>

VOLUME 8, ISSUE 1

Spring 2015

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THE EFFECT OF NURSE CHARACTERISTICS ON SATISFACTION  
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Submitted to the School of Nursing in partial fulfillment of the requirements for the  
Nursing Honors Program

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## ABSTRACT

**Purpose and Background/Significance:** This study aims to investigate the relationship between RN characteristics and satisfaction with professionalism in the work environment and explore differences in RN satisfaction based on RN characteristics. Positive organizational culture and professionalism are two resources that can increase job retention. By examining the relationship between RN characteristics and organizational culture, we can understand which RN characteristics influence nurses' satisfaction with professionalism in their work environment.

**Theoretical/Conceptual Framework:** Four aspects of professionalism, which have been identified through prior research, will be examined: autonomy, decision-making, professional status of nurses, and professional development opportunities. Previous research has also identified characteristics of nurses, which are related to differences in RN satisfaction and professionalism. The current study focuses on RN characteristics with previously identified relationships to RN satisfaction, including education, gender, certification, age, and tenure.

**Method:** This descriptive study is a secondary-analysis, using correlation and General Linear Model methods to examine data from the 2013 National Database of Nursing Quality Indicators (NDNQI) RN satisfaction annual survey. The RN Job Satisfaction Scales are measured at the unit level, and one item from each scale is also measured at the individual RN level. Individual level responses by unit type were examined in relationship to RN characteristics. A sample of 42,515 RNs responded to all of the individual level items as well the RN characteristics in 2013.

**Results:** Using correlation methods to examine data, findings identified there is very little relationship between RN characteristics and increased satisfaction with professionalism in the work environment. General Linear Model methods were then used to determine if there were differences in RN satisfaction with professionalism in the work environment based on RN characteristics. These results were statistically significant but with very small effect sizes. The practical implications were not substantial.

**Conclusions:** Organizations seeking to increase RN satisfaction and improve patient outcomes should be aware of the RN characteristics that are correlated with RN satisfaction, specifically as they relate to professionalism in the work environment. These results provide valuable information to healthcare organizations seeking to increase RN satisfaction and improve patient outcomes.

**Role on research team:** As a member of this research team I performed the literature review and identified the study concept and research questions. I also interpreted the data analysis, drafted the manuscript, and prepared a poster presentation outlining findings from the data analysis.

## INTRODUCTION

In recent years, there has been an increasing focus on professionalism in the education and preparatory training of RNs. Although, the definition of professionalism in nursing varies across settings, many people will agree that, there is a push for nurses to embody professional ideals including prioritizing continuing education and training, seeking autonomy to practice the full extent of one's credentials, and participating in leadership roles and decision-making in the care of patients. According to Manojlovich and Ketefian (2002), "The ability of nurses to practice in a professional manner may be influenced by the organizational culture of their work environment. Personal attributes may also play a role. Patient outcomes depend on the identification and promotion of scarce health resources" (p.15). Prior research done by Manojlovich and Ketefian (2002), shows that 16% of variance in a nurses' sense of professionalism is predicted by the culture of their workplace. The combination of nursing professionalism and organizational culture are keys to improving patient outcomes.

In addition, hospitals are being asked to do more with less. There is an overarching urgency in healthcare to achieve better outcomes with fewer resources. An important resource for hospitals includes the pool of tenured Registered Nurses. Numerous research studies, including Boyle, et al., (2006), have cited that higher commitment to the organization, higher intent to stay at your job, and lower turnover rates are the result of higher RN job satisfaction. Hospital administrators will likely be inclined to invest in areas that are shown to increase job satisfaction among their nursing staff, if increased patient outcomes are the end result. In doing

so, they must also invest in each nurse's professionalism because of its synergistic relationship to increased job satisfaction. Given the emphasis of professionalism in Baccalaureate nursing programs, an examination of the perceived professionalism of the RN work environment provides crucial information to both academic institutions and healthcare employers.

This study aims to investigate the relationship between RN characteristics and satisfaction with professionalism in the work environment by unit type and to explore differences in RN satisfaction based on RN characteristics. By examining the relationship between RN characteristics and aspects of the nursing work environment, we can understand which RN characteristics correlate with RN satisfaction with professionalism in their work environment, and the unit types that tend to have RNs with a higher sense of professionalism among their nursing staff.

## **REVIEW OF LITERATURE**

Understanding which RN characteristics are related to nurses' satisfaction with the work environment can guide efforts to improve the work environment and increase retention. Prior studies have examined the effect of RN characteristics on professional behaviors and attitudes; this study examined the relationship between RN characteristics and satisfaction with professionalism in the work environment. Nursing characteristics that have been linked to higher levels of RN job satisfaction and which positively influence professionalism were thought to increase overall satisfaction with professionalism in the work environment. Of the six characteristics examined in our study, certification, education, age, and unit type had been more

frequently researched and described than gender, years, experience, and unit tenure.

Wade (2009) studied the perceived benefits of specialty certification for RNs, concluding that certification led to increased RN job satisfaction, collaboration with members of the healthcare team, and overall sense of empowerment. Certification is noted to enhance “personal achievement, job satisfaction, and validation of knowledge” (Niebuhr & Biel, 2007, p. 176). Additionally, increased specialty knowledge was likely to enhance the individuals perceived level of status and autonomy in the workplace.

Similarly to certification, advanced levels of education were positively associated with increased satisfaction. According to Hwang, et al., (2009), nurses with higher levels of education showed significantly higher levels of professionalism and job satisfaction. Nurses with a BSN were shown to have higher job satisfaction with their workplace than ADN or Diploma nurses (Klaus, 2012). Although nurses with higher levels of education would be expected to have higher expectations of professionalism, they still demonstrated significantly higher satisfaction with professionalism. Little research was found on the effects of gender and unit tenure on RN job satisfaction, however, Klaus, et al., (2012) found that increased unit tenure most often led to decreased job satisfaction. This was thought to be attributed to younger nurses experiencing disillusionment with the RN role over an extended period of time. Age cohorts studied by Klaus, et al., (2012), identified that nurses age 20-29 were the most satisfied and those ages 40-49 were the least

satisfied. These findings supported each other in the sense that, generally speaking, more experienced nurses reported decreased job satisfaction.

Although the characteristics we examined had been studied in relation to satisfaction and professionalism, unit type had only been reviewed for its effect on satisfaction. In this study, we hoped to gain a better understanding of how varying unit types correlated with professionalism in the workplace. According to Boyle, et al., (2006), “nurse workgroups with the highest satisfaction were in pediatric units, rehabilitation units, outpatient clinics and labs; whereas, workgroups with the lowest satisfaction were in EDs and surgical services (peri-operative; p. 636).” In addition, pediatric, rehabilitation, and outpatient clinic RN workgroups had the highest perceived satisfaction with autonomy and decision-making (Boyle, et al., 2006). Medical-surgical, step-down, and critical care nurses were the youngest and fewest in average years in practice, while medical-surgical and step-down nurses tallied the fewest years on their current unit and also displayed the lowest rate of graduate nursing degrees (Boyle, et al., 2006). Nurses in all unit types reported high levels of satisfaction with professional status and professional development, while reporting low satisfaction with decision-making (Boyle, et al., 2006).

Prior studies examining professionalism used attitudes and behaviors to gauge a level of professionalism in a group of RNs. In this study, we will examine four aspects of professionalism that correspond closely to the definition of a professional, according to prior research. Professionalism can be difficult to measure because definitions vary across studies. Wynd (2003) defines professionals



as “individuals oriented toward a particular career, who move beyond basic education, and show a high level of intellectual functioning, a sense of responsibility, scientific-based and specialized knowledge, a desire for extended learning and education, self-governance, and altruism” (p. 252). According to Hwang (2009) “professionalism refers to attitudes representing levels of identification with and commitment to a particular profession” (p. 314).

The National Database of Nursing Quality Indicators (NDNQI) conducts an annual RN Survey that measures RN satisfaction with several aspects of the work environment. Four of these aspects reflect dimensions of professionalism previously identified in the literature. Therefore, in this study we examined four aspects of professionalism: autonomy, decision-making, professional development, and professional status. Autonomy align with professionalization because they facilitate the power of professionals with decision-making (Wynd, 2003). We then looked at satisfaction with professionalism at the individual level across unit types, bridging the gap between satisfaction with unit type and satisfaction with overall professionalism on their unit. Our hope is to attain a better understanding of professionalism in the workplace and to identify which unit type nurses are satisfied with professionalism in their work environment.

New graduate nurses entering the workforce with their baccalaureate degree received a significant amount of training in professionalism and leadership. It's important to understand whether or not these new graduates are seeing professional ideals embraced in their work environment. Some important questions

we hope to bring to light; are the pillars of professionalism new graduates are being taught in school being nurtured when they enter the workforce? Are these new nurses seeing professionalism reflected in their colleagues? Is their environment supporting professional growth and development? Identifying whether or not there is a gap between professionalism being taught in nursing education and professionalism in the work environment can bring attention to organizations that are striving to narrow that gap.

As previously noted, Manojlovich and Ketefian (2002) found that 16% of variance in nursing professionalism was determined by the organizational culture. In addition, positive organizational culture was identified as a key factor in improving patient outcomes. Studies show that nurses working in the hospital setting are not equipped with the autonomy and organizational influence needed to fulfill their professional responsibilities to patients (Manojlovich & Ketefian, 2002). In addition, the workplace environment is proven to significantly impact nursing professionalism, forcing nurses to manipulate the environment to achieve higher levels of professionalism when lacking (Manojlovich & Ketefian, 2002). There is an obvious gap in professionalism between the work environment and what's being taught in nursing education. This study aims to identify areas in which hospital administrators, nurse educators, and nurse leaders alike, can narrow this gap.

Based on findings from Manojlovich and Ketefian (2002), when organizational values align with individual values of the RN, these RNs tend to be more satisfied. As a result of prior research and our findings, we can correlate the professional values

of nurses with characteristics such as age, gender, unit tenure, education, certification, years of experience, and unit type. This information is highly valuable to hospital administrators and nursing leaders who are looking for ways to increase RN satisfaction with professionalism in the work environment, which could translate to improved patient outcomes.

The two research questions addressed in this study are: 1) Are RN characteristics related to RN satisfaction with professionalism in the work environment? 2) Are there differences in satisfaction with professionalism in the work environment based on RN characteristics and unit type?

## METHODS

### **DESIGN & PROCEDURES**

This descriptive study is a secondary-analysis, using correlation and General Linear Model (GLM) methods to examine data from the 2013 National Database of Nursing Quality Indicators (NDNQI) annual RN Survey. The RN Job Satisfaction Scales are measured at the unit level, and one item from each scale is also measured at the individual RN level. Individual level responses were examined in relationship to RN characteristics. Participation in the NDNQI RN survey is voluntary. Hospitals invite RNs to participate in this survey. Hospitals appoint a site coordinator to facilitate communication surrounding the survey. To be eligible for this survey, RNs must spend at least 50% of their time providing direct patient care and must have a minimum of 3 months employment in the current unit.

To distinguish differences in workplace satisfaction amongst the 16 unit-types, a two-step secondary analysis was utilized. Correlation methods were used to evaluate relationships between RN characteristics and job satisfaction to address research question one, “Are RN characteristics related to RN satisfaction with professionalism in the work environment?” GLM methods were used to determine differences in RN satisfaction with professionalism in the work environment based on RN characteristics and unit-type to address research question two, are there differences in satisfaction with professionalism in the work environment based on RN characteristics?

### *Measures*

Four aspects of professionalism were identified through prior research: Autonomy, Decision-Making, Professional Status, and Professional Development Opportunities. Each aspect was measured by a single item from the NDNQI annual RN Survey. Each item is measured using a 6-point Likert scale where 1= strongly disagree and 6= strongly agree. RN characteristics with previously identified relationships to RN satisfaction were examined: Education, Certification, Gender, Age, Years in practice, Years on unit, and Unit Type.

### *Sample*

A sample of 42,515 RNs responded to all of the individual level items as well as the RN characteristics in 2013. Table 1 shows the distribution of RN characteristics by unit type. Included in our sample data are 169 hospitals, representing 3,853 total units. Overall, the sample had over half Bachelor’s prepared nurses (64%), a quarter

specialty certified nurses (25%) and was predominantly female (90%), with a mean age of 41, mean years in practice of 13, and mean unit tenure of 7 years.

### *Analysis*

To distinguish differences in workplace satisfaction amongst the 16 unit-types, a two-step secondary analysis was utilized. Correlation methods were used to evaluate relationships between RN characteristics and job satisfaction to address research question one, "Are RN characteristics related to RN satisfaction with professionalism in the work environment?" GLM methods were used to determine differences in RN satisfaction with professionalism in the work environment based on RN characteristics and unit-type to address research question two, are there differences in satisfaction with professionalism in the work environment based on RN characteristics?

## RESULTS

In evaluating relationships between RN characteristics and satisfaction with professionalism, nearly all correlational relationships proved to be significant ( $p < 0.05$ ). However, the relationships were too small ( $r < 0.1$ ) to be meaningful. Findings yielded significant differences in satisfaction on most RN characteristics, but similar themes amongst varying unit-types.

Table 2 presents the result of the GLM model by unit type. Table 3 identifies patterns in significant group differences across the four professionalism items by unit type.

Specialty certification is related to RN satisfaction on the majority of unit types (Table 2). RNs holding a specialty certification tended to be more satisfied with autonomy than non-certified RNs, whereas non-certified RNs tended to be more satisfied than certified nurses with decision-making, professional status and professional development activities (Table 3).

Excluding psychiatric, rehab and interventional radiology, all unit types displayed significant differences in satisfaction with professionalism across age groups (Table 2). Older nurses (>45) tended to be more satisfied with decision-making, professional status, and professional development opportunities. Nurses age thirty and younger were the most satisfied with their autonomy (Table 3).

Education was dichotomized into BSN-prepared or higher vs. non-BSN prepared (Table 2). Non-BSN nurses were more satisfied with decision-making, professional status, and autonomy. BSN-prepared nurses reported higher levels of satisfaction with professional development opportunities (Table 3).

Clear differences in satisfaction with professionalism by gender were identified (Table 2). Female nurses reported higher levels of satisfaction than males in all clinical areas, excluding pediatrics. Male RNs were more satisfied than female RNs with professional status and professional development opportunities on pediatric units (Table 3).

Years in practice yielded similar trends by unit type to RN satisfaction with professionalism (Table 2). The longer a RN has been in practice, the more satisfied they tended to be with decision-making, professional status, and professional

development opportunities. Younger nurses tended to be more satisfied with their perceived level of autonomy (Table 3).

Years on unit displayed obvious trends in satisfaction by unit type (Table 2). Nurses with more unit experience, who have been working on their current unit for longer, were more satisfied with decision-making, professional status, and professional development opportunities. Those RNs with less experience on the unit reported higher satisfaction with autonomy (Table 3).

Education influenced satisfaction with professional development opportunities on a handful of unit types. In precisely half of the unit types evaluated, gender was a key determinant in satisfaction with autonomy. Years on unit was the primary characteristic resulting in differences in satisfaction for peri-operative and emergency department nurses. Significant differences in satisfaction across years in practice were found amongst ambulatory nurses. As a whole, medical nurses showed significant levels of satisfaction related to professional status. The results founded are statistically significant but with small effect sizes, the practical implications are not substantial. It's likely that large sample sizes influenced highly significant findings.

## DISCUSSION

Prior research by Klaus (2012) revealed relationships between age cohorts and RN characteristics, but did not examine how that relationship effects satisfaction with professionalism. Our study showed that satisfaction with professionalism in the work environment is strongly correlated with age. Findings also revealed mostly

negative correlations between satisfaction with professionalism and nurses who were BSN-prepared and specialty certified. These findings did not validate what Niebuhr and Biel (2007) found to be true, specifically that specialty certification leads to increased workplace satisfaction.

According to Hwang et al. (2009), nurses with higher education showed higher levels of professionalism and increased professionalism was the key factor influencing increased job satisfaction. Our findings suggested little relationship between higher education and an increased satisfaction with professionalism in the workplace. BSN-prepared nurses were only more satisfied than non-BSN nurses with one of the four aspects of professionalism, that being professional development opportunities. A possible reason for this finding is that BSN-prepared nurses may have higher expectations for professionalism in the work environment. This could be because BSN-prepared nurses are learning significantly more about professionalism in their course work than non-BSN prepared nurses.

Twentieth-first century baccalaureate programs are placing significant emphasis on professionalism and leadership in nursing practice because of its positive influence on patient outcomes, quality core measures, RN turnover and organizational cost-effectiveness (Lyons, 2008). Novice nurses are entering the workforce with a great deal of professionalism training and are being mentored by nurses who did not have comparable training. Disseminating surveys to better understand RN expectations may be appropriate to validate this theory.



Certified nurses were most satisfied with their level of autonomy. This is an expected finding because of the increased responsibilities and scope of practice that comes with certification. The fact that non-certified RNs were more satisfied with decision-making, professional status, and professional development opportunities comes as somewhat of a surprise because of the strong literature background tying certification to professionalism. Yet again, RN expectations should be evaluated to determine if specialty certification raises nurses expectations of professionalism in the work environment. Nurses who obtain specialty certification may have heightened expectations for their level of professional status and decision-making abilities in the workplace, and thus are less satisfied with the current levels of professionalism in the work environment.

Very little research was found discussing the effect of tenure on RN satisfaction. Trends identified from our research reveal that older nurses (>45), are the most satisfied with professional status, professional development, and decision-making. Nurses younger than 30 reported higher levels of satisfaction with autonomy. Similar to expectations discussed in regards to education, it's possible that younger nurses have lower expectations and desire less autonomy than more experienced nurses. In addition, older nurses may be able to take advantage of more professional development opportunities because of their experience. Younger nurses often spend a number of years learning to become skilled bedside nurses prior to pursuing professional development opportunities away from the bedside.

Data revealed that female nurses are more satisfied than male nurses in nearly all-clinical arenas, excluding pediatrics. Male nurses demonstrated a greater satisfaction with professionalism than females on pediatric units. Prior research regarding satisfaction by gender was difficult to identify. Future research may aim to explore this topic in more detail as more and more men join the profession of nursing.

Prior research has examined unit-type differences in workplace satisfaction but a gap was identified in terms of understanding the correlation between specific RN characteristics and their relationship to satisfaction with professionalism in the workplace. Our findings lay a concrete foundation for future interventional research looking to study interventions aimed to increase workplace satisfaction and subsequently retention of nurses. Examining these relationships from a unit-type perspective allows nursing administrators to identify high performing units and dig deeper to uncover best practices leading to increased satisfaction. Conversely, identifying units with lower scores provides a baseline from which to assess problem areas. There are dozens of potential variables that come into play of why a particular unit-type has increased satisfaction with professionalism versus another unit, but our findings are a starting point to begin evaluating those variables at play.

## LIMITATIONS AND RECOMMENDATIONS

Due to small effect sizes, future studies may want to study a more focused sample size. Due to the exploratory approach, causation cannot be conclusively determined. Self reported levels of satisfaction lead to results that are less concrete.

Prior research contradicts our findings that higher education had little effect on RN satisfaction with professionalism. Further research is needed to better understand the relationship between higher education and lower levels of reported satisfaction with professionalism. Future researchers may find it beneficial to also utilize the Practice Environment Scale to determine the frequency that these specific professionalism variables are displayed in the work environment. These findings would likely lead to more conclusive results.

## CONCLUSION

At this point, it is too early to make strong clinical recommendations in regards to which specific RN characteristics lead to increased satisfaction with professionalism. Trends identified from our study reveal that older nurses are more satisfied with all aspects of professionalism, excluding autonomy. Younger nurses were more satisfied with their level of autonomy on all but one unit type studied. Female nurses were more satisfied than male nurses with the exception of pediatrics. Non-BSN prepared RNs were more satisfied than BSN-prepared nurses with all aspects of professionalism, excluding professional development opportunities. Non-certified nurses were more satisfied with all aspects of

professionalism excluding autonomy. Certified nurse were more satisfied with their level of autonomy.

By investing in the professionalism of the organizational culture, hospital administrators may be able to increase RN retention and patient outcomes simultaneously through improved RN satisfaction. Findings from this study can be used in future research to determine specific RN characteristics and unit-types that enhance workplace satisfaction with professionalism. Our research looked at relationships between RN characteristics and workplace satisfaction in a way that had not been done prior. Future efforts may need to be focused on better understanding RN expectations in regards to professionalism. This may lead to a better understanding of why nurses with higher levels of education and specialty certification are reporting lower levels of satisfaction with professionalism.

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TABLE 1. DESCRIPTIVE STATISTICS BY UNIT TYPE

	Age			Sex (Female) N(%)	Education (BSN or Higher) N(%)	Certification (Yes) N(%)>	Years in Practice Mean (std)	Years on Unit Mean (std)	DM Mean (std)	AU Mean (std)	PS Mean (std)	PD Mean (std)
	<=30 N(%)	31-45 N(%)	45 N(%)									
<b>Critical Care</b>	220 (33.8)	2664 (40.8)	1662 (25.5)	5470 (83.8)	4858 (74.4)	2028 (31.1)	10.91 (9.57)	6.37 (6.86)	3.39 (1.31)	3.40 (1.15)	2.97 (1.28)	2.65 (1.18)
<b>Step Down</b>	1352 (39.5)	1321 (38.6)	752 (22.0)	3003 (87.7)	2296 (67.0)	549 (16.0)	8.20 (8.64)	4.86 (5.35)	3.22 (1.27)	3.42 (1.12)	2.83 (1.22)	2.53 (1.13)
<b>Medical</b>	1537 (35.5)	1698 (39.2)	1100 (25.4)	3982 (91.9)	2808 (64.8)	727 (16.8)	8.66 (9.07)	5.23 (5.88)	3.15 (1.24)	3.41 (1.17)	2.75 (1.20)	2.47 (1.08)
<b>Surgical</b>	1188 (38.9)	1053 (34.5)	815 (26.7)	2813 (92.0)	1929 (63.1)	499 (16.3)	9.35 (10.05)	5.89 (6.74)	3.13 (1.25)	3.46 (1.13)	2.83 (1.24)	2.47 (1.10)
<b>Medical-Surgical Comb</b>	1703 (34.1)	1940 (38.9)	1346 (27.0)	4589 (92.0)	2981 (59.8)	825 (16.5)	9.21 (9.21)	5.54 (6.13)	3.20 (1.25)	3.34 (1.10)	2.83 (1.21)	2.52 (1.10)
<b>Obstetric</b>	1023 (22.8)	1839 (41.1)	1616 (36.1)	4459 (99.6)	2742 (61.2)	1272 (28.4)	14.49 (11.07)	9.06 (8.49)	3.34 (1.26)	3.57 (1.15)	2.84 (1.22)	2.66 (1.14)
<b>Neonate</b>	542 (23.9)	794 (35.0)	934 (41.1)	2220 (97.8)	1564 (68.9)	686 (30.2)	15.86 (11.30)	10.68 (9.25)	3.38 (1.28)	3.46 (1.15)	2.84 (1.23)	2.67 (1.19)
<b>Pediatric</b>	588 (37.8)	593 (38.2)	373 (24.0)	1487 (95.7)	1098 (70.7)	487 (31.3)	11.21 (10.24)	7.87 (8.10)	3.19 (1.21)	3.65 (1.12)	2.67 (1.13)	2.55 (1.14)
<b>Psychiatric</b>	234 (15.5)	490 (32.4)	790 (52.2)	1234 (81.5)	810 (53.5)	216 (14.3)	14.54 (11.86)	6.58 (7.03)	3.34 (1.42)	3.33 (1.24)	2.89 (1.31)	2.68 (1.26)
<b>Perioperative</b>	746 (11.3)	2319 (35.1)	3537 (53.6)	5974 (90.5)	3816 (57.8)	1839 (27.9)	18.86 (11.78)	8.63 (8.08)	3.61 (1.34)	3.47 (1.19)	2.99 (1.24)	2.83 (1.24)
<b>Emergency Department</b>	1166 (26.4)	1988 (45.1)	1255 (28.5)	3662 (83.1)	2711 (61.5)	1079 (24.5)	11.71 (9.86)	5.77 (6.12)	3.27 (1.33)	3.58 (1.15)	2.90 (1.23)	2.67 (1.22)
<b>Ambulatory Care</b>	226 (9.6)	725 (30.7)	1410 (59.7)	2264 (95.9)	1508 (63.9)	779 (33.0)	20.18 (11.56)	7.13 (6.89)	3.32 (1.30)	3.77 (1.21)	2.74 (1.16)	2.69 (1.20)

<b>Interventional</b>	404 (11.0)	1335 (36.3)	1935 (52.7)	3211 (87.4)	2097 (57.1)	940 (25.6)	18.30 (10.96)	6.93 (6.55)	3.23 (1.30)	3.59 (1.23)	2.74 (1.17)	2.61 (1.17)
<b>Other</b>	858 (18.1)	1920 (40.5)	1960 (41.4)	4198 (88.6)	3023 (63.8)	1408 (29.7)	15.04 (11.13)	6.14 (6.09)	3.19 (1.29)	3.64 (1.24)	2.75 (1.20)	2.53 (1.17)
<b>Adult Bone Marrow Transplant</b>	39 (31.7)	58 (47.2)	26 (21.1)	116 (94.3)	100 (81.3)	41 (33.3)	9.70 (9.67)	6.46 (5.64)	2.77 (1.27)	3.98 (1.02)	2.41 (1.03)	2.28 (1.03)
<b>Rehab</b>	115 (17.6)	224 (34.2)	316 (48.2)	588 (89.8)	377 (57.6)	159 (24.3)	14.03 (11.15)	6.70 (7.01)	3.13 (1.26)	3.35 (1.16)	2.70 (1.18)	2.44 (1.11)

\*DM = Decision-Making, AU = Autonomy, PS = Professional Status, PD = Professional Development

TABLE 2. GENERAL LINEAR MODEL RESULTS

## F-value and Effect Size (Partial eta-squared) Values

<b>Decision Making</b>						
	<b>Age</b>	<b>Gender</b>	<b>Years in Practice</b>	<b>Years on Unit</b>	<b>Education</b>	<b>Certification</b>
Critical Care	4.82* (.001)	0.001 (.000)	1.23 (.000)	14.03* (.002)	0.13 (.000)	9.49* (.001)
Step Down	2.35 (.001)	0.03 (.000)	0.56 (.000)	1.96 (.001)	4.25* (.001)	21.86* (.006)
Medical	1.94 (.001)	0.76 (.000)	0.03 (.000)	9.64* (.002)	8.80* (.002)	14.37* (.003)
Surgical	0.73 (.000)	3.23 (.001)	0.05 (.000)	4.41* (.001)	4.29* (.001)	13.30* (.004)
Medical-Surgical Combined	3.48* (.001)	3.58 (.001)	0.01 (.000)	5.55* (.001)	2.61 (.001)	39.72* (.008)
Obstetric	5.10* (.002)	0.00 (.000)	0.25 (.000)	1.54 (.000)	1.75 (.000)	4.15* (.001)
Neonate	3.96* (.003)	0.31 (.000)	2.50 (.001)	2.20 (.001)	0.36 (.000)	1.00 (.000)
Pediatric	0.47 (.001)	0.48 (.000)	2.03 (.001)	0.33 (.000)	2.02 (.001)	12.77* (.008)
Psychiatric	0.56 (.001)	2.92 (.002)	0.43 (.000)	1.25 (.001)	0.89 (.001)	3.09 (.002)
Perioperative	3.79* (.001)	0.10 (.000)	8.84* (.001)	20.74* (.003)	0.08 (.000)	10.05* (.002)
Emergency Department	2.61 (.001)	4.62* (.001)	1.59 (.000)	8.01* (.002)	0.07 (.000)	2.44 (.001)
Ambulatory Care	7.68* (.006)	0.03 (.000)	9.32* (.004)	0.52 (.000)	0.03 (.000)	6.62* (.003)
Interventional	6.85* (.004)	0.14 (.000)	0.003 (.000)	2.71 (.001)	1.91 (.001)	23.70* (.006)
Other	4.19* (.002)	0.63 (.000)	1.89 (.000)	1.70 (.000)	0.83 (.000)	4.17* (.001)
Adult Bone Marrow Transplant	1.50 (.025)	0.87 (.007)	0.03 (.000)	0.28 (.002)	0.002 (.000)	1.18 (.010)
Rehab	0.12 (.000)	0.02 (.000)	0.05 (.000)	2.58 (.004)	0.87 (.001)	11.03* (.017)



<b>Autonomy</b>						
	<b>Age</b>	<b>Gender</b>	<b>Years in Practice</b>	<b>Years on Unit</b>	<b>Education</b>	<b>Certification</b>
Critical Care	6.34* (.002)	23.85* (.004)	0.04 (.000)	0.07 (.000)	2.47 (.000)	1.12 (.000)
Step Down	2.22 (.001)	28.80* (.008)	3.94* (.001)	0.41 (.000)	2.25 (.001)	12.21* (.004)
Medical	16.41* (.008)	18.33* (.004)	0.12 (.000)	0.08 (.000)	3.17 (.001)	2.23 (.001)
Surgical	11.69* (.008)	2.54 (.001)	2.80 (.001)	1.87 (.001)	5.38* (.002)	9.00* (.003)
Medical-Surgical Combined	34.28* (.014)	21.21* (.004)	3.16 (.001)	3.69 (.001)	6.60* (.001)	56.30* (.011)
Obstetric	24.44* (.011)	2.85 (.001)	8.29* (.002)	0.44 (.000)	13.57* (.003)	10.43* (.002)
Neonate	8.48* (.007)	1.27 (.001)	0.11 (.000)	5.62* (.002)	0.60 (.000)	0.02 (.000)
Pediatric	6.20* (.008)	3.13 (.002)	0.06 (.000)	0.85 (.001)	4.47* (.003)	4.82* (.003)
Psychiatric	0.14 (.000)	7.54* (.005)	2.60 (.002)	2.76 (.002)	8.57* (.006)	6.37* (.004)
Perioperative	15.99* (.005)	27.36* (.004)	23.74* (.004)	22.70* (.003)	8.50* (.001)	0.35 (.000)
Emergency Department	6.57* (.003)	44.04* (.010)	4.04* (.001)	5.54* (.001)	0.60 (.000)	0.06 (.000)
Ambulatory Care	7.76* (.007)	0.31 (.000)	12.33* (.005)	1.42 (.001)	2.31 (.001)	6.88* (.003)
Interventional	5.99* (.003)	13.90* (.004)	4.54* (.001)	1.23 (.000)	5.40* (.001)	8.92* (.002)
Other	3.89* (.002)	12.47* (.003)	36.63* (.008)	1.26 (.000)	0.01 (.000)	2.96 (.001)
Adult Bone Marrow Transplant	0.84 (.014)	0.01 (.000)	1.00 (.009)	0.62 (.005)	0.15 (.001)	0.74 (.006)
Rehab	2.97 (.009)	0.20 (.000)	1.78 (.003)	0.73 (.001)	5.07* (.008)	1.46 (.002)

<b>Professional Status</b>						
	<b>Age</b>	<b>Gender</b>	<b>Years in Practice</b>	<b>Years on Unit</b>	<b>Education</b>	<b>Certification</b>
Critical Care	19.14* (.006)	0.20 (.000)	0.70 (.000)	8.45* (.001)	0.47 (.000)	3.86 (.001)
Step Down	3.97* (.002)	0.04 (.000)	0.85 (.000)	3.93* (.001)	3.18 (.001)	19.64* (.006)
Medical	10.74* (.005)	0.11 (.000)	1.42 (.000)	7.07* (.002)	4.91* (.001)	12.85* (.003)
Surgical	5.22* (.003)	0.07 (.000)	0.12 (.000)	7.04* (.002)	0.001 (.000)	10.60* (.003)
Medical-Surgical Comb	6.68* (.003)	7.61* (.002)	1.39 (.000)	3.43 (.001)	3.13 (.001)	22.96* (.005)
Obstetric	4.35* (.002)	0.02 (.000)	0.13 (.000)	5.77* (.001)	0.88 (.000)	1.38 (.000)
Neonate	3.92* (.003)	1.29 (.001)	6.40* (.003)	2.61 (.001)	1.38 (.001)	4.16* (.002)
Pediatric	3.29* (.004)	5.83* (.004)	3.87* (.002)	0.13 (.000)	0.01 (.000)	8.51* (.005)
Psychiatric	1.58 (.002)	1.13 (.001)	1.29 (.001)	1.59 (.001)	0.22 (.000)	11.17* (.007)
Perioperative	4.46* (.001)	0.45 (.000)	7.03* (.001)	15.78* (.002)	1.63 (.000)	2.77 (.000)
Emergency Department	6.47* (.003)	0.18 (.000)	0.34 (.000)	13.12* (.003)	3.05 (.001)	0.18 (.000)
Ambulatory Care	9.59* (.008)	1.77 (.001)	14.03* (.006)	1.72 (.001)	0.00 (.000)	1.83 (.001)
Interventional	1.73 (.178)	0.16 (.000)	0.01 (.000)	0.87 (.000)	0.22 (.000)	8.94* (.002)
Other	12.81* (.005)	0.21 (.000)	1.57 (.000)	2.06 (.000)	1.51 (.000)	0.002 (.000)
Adult Bone Marrow Transplant	3.69* (.060)	0.00 (.000)	5.00* (.042)	0.88 (.008)	1.47 (.013)	0.99 (.009)
Rehab	0.03 (.000)	0.004 (.000)	0.51 (.001)	1.69 (.003)	0.001 (.000)	4.23* (.006)

<b>Professional Development</b>						
	<b>Age</b>	<b>Gender</b>	<b>Years in Practice</b>	<b>Years on Unit</b>	<b>Education</b>	<b>Certification</b>
Critical Care	11.87* (.004)	0.60 (.000)	0.13 (.000)	2.79 (.000)	7.66* (.001)	4.42* (.001)
Step Down	4.32* (.003)	0.96 (.000)	0.34 (.000)	7.35* (.002)	2.14 (.001)	17.32* (.005)
Medical	8.09* (.004)	0.28 (.000)	5.03* (.001)	0.51 (.000)	0.69 (.000)	6.26* (.001)
Surgical	0.73 (.000)	0.98 (.000)	0.23 (.000)	5.34* (.002)	0.26 (.000)	20.18* (.007)
Medical-Surgical Comb	1.75 (.001)	0.22 (.000)	1.31 (.000)	0.46 (.000)	3.65 (.001)	26.24* (.005)
Obstetric	10.51* (.005)	0.06 (.000)	0.03 (.000)	0.19 (.000)	7.93* (.002)	0.79 (.000)
Neonate	13.77* (.012)	0.00 (.000)	0.01 (.000)	2.61 (.001)	2.71 (.001)	0.53 (.000)
Pediatric	4.63* (.006)	4.73* (.003)	6.96* (.004)	0.71 (.000)	3.04 (.002)	5.02* (.003)
Psychiatric	0.05 (.000)	0.40 (.000)	0.62 (.000)	3.35 (.002)	2.10 (.001)	3.06 (.002)
Perioperative	1.97 (.001)	2.60 (.000)	2.21 (.000)	22.51* (.003)	13.48* (.002)	7.25* (.001)
Emergency Department	7.77* (.004)	0.20 (.000)	0.68 (.000)	10.57* (.002)	7.64* (.002)	0.02 (.000)
Ambulatory Care	5.38* (.005)	1.27 (.001)	15.73 (.007)	2.39 (.001)	1.55 (.001)	4.93* (.002)
Interventional	0.80 (.000)	0.60 (.000)	0.41 (.000)	0.04 (.000)	6.73* (.002)	7.06* (.002)
Other	4.18* (.002)	0.52 (.000)	5.96* (.001)	0.97 (.000)	2.08 (.000)	0.06 (.000)
Adult Bone Marrow Transplant	0.83 (.014)	0.40 (.003)	0.18 (.002)	1.91 (.016)	0.08 (.001)	3.91 (0.033)
Rehab	0.55 (.002)	0.63 (.001)	1.17 (.002)	3.25 (.005)	1.28 (.002)	5.03* (.008)

\*Significant at  $p < 0.05$

TABLE 3. SIGNIFICANT RESULTS OF GLM BY UNIT TYPE

Professionalism Item	Age				Gender				Education				Certification				Years in Practice				Years on Unit							
	DM	AU	PS	PD	DM	AU	PS	PD	DM	AU	PS	PD	DM	AU	PS	PD	DM	AU	PS	PD	DM	AU	PS	PD				
Unit Type																												
Critical Care	>45	≤30	>45	>45		F						B	N		N	N							+		+			
Step Down			>45	>45		F			N				N	C	N	N		-						+	+			
Medical		≤30	>45	31-45		F			N		N		N		N	N				+			+		+			
Surgical		≤30	>45						N	N			N	C	N	N							+		+	+		
Medical-Surgical Comb	>45	≤30	>45			F	F			N			N	C	N	N							+					
Obstetric	>45	≤30	>45	31-45							N		B	N	C										+			
Neonate	>45	≤30	>45	31-45											N				+					-				
Pediatric		≤30	>45	>31			M	M		N			N	C	N	N				+	+							
Psychiatric						F				N				C	N													
Perioperative	>45		>45									B	N			N		+		+			+		+	+		
Rehab										N			N		N	N												
Emergency		≤30	>45	>31	F	F						B						-					+	-	+	+		
Ambulatory	>45	≤30	>45	>45									N	C		N		-	+	-	-							
Interventional	>45	≤30				F				N		B	N	C	N	N			-									
Adult BMT			>45													N				+								
Other	>45	>45	>45	>45		F							N						-									

Categories listed in cells represent the category with the highest level of RN satisfaction with professionalism. N = Non-BSN or No Specialty Certification, B = BSN, C = Specialty Certification, + = Longer Tenure, - = Shorter Tenure