THE ASSOCIATION BETWEEN NURSE-PHYSICIAN COLLABORATION AND PATIENT AND NURSE OUTCOMES IN ADULT INTENSIVE CARE UNITS

Introduction

Nurses and physicians each serve a unique role in providing care, and effective collaboration is crucial to the delivery of improved patient care. Poor collaboration negatively affects the delivery of healthcare and patient outcomes.

Effective collaboration has been shown to decrease costs, provide more holistic care, increase job enjoyment, and improve patient outcomes. Many assessments of interprofessional collaboration are based on case study designs or are evaluations of specific interprofessional training programs.

Purpose

The purpose of this study is to analyze data from the National Database of Nursing Quality Indicators[R] (NDNQI), a large, standardized database to answer two research questions:

(1) What is the level of collaborative communication between nurses and physicians on adult intensive care units (ICUs)?

(2) What are the associations between patient and nurse outcomes and nurse-physician collaboration?

Methodology

This is a cross-sectional, descriptive study using work environment and clinical data from NDNQI. The data were collected in 2019 from 313 hospital ICUs in the United States. A variety of hospital types submitted data, including Magnet and non-Magnet hospitals; academic medical centers, teaching hospitals, and community hospitals.

In a survey, RNs rated five aspects of interprofessional collaboration with physicians: conflict management skills; respect; assignment of blame for adverse events; shared accountability; and understanding the roles, knowledge, and skills of RNs.

For analyses, we calculated descriptive statistics for all study variables. In addition, we used Pearson correlations to examine the relationships between the aspects of interprofessional communication and nurse and patient outcomes, displayed in Table 1 and Table 2.

Results

Table 1: Descriptive Statistics				
	n	Mean (SD)	Minimum	Maximum
Conflict Management (1-5)	313	3.59 (0.33)	2.18	4.35
Demonstrates Respect (1-5)	313	3.71 (0.32)	2.74	4.39
Consider Root Causes (1-5)	313	3.59 (0.34)	2.18	4.43
Share Accountability (1-5)	313	3.54 (0.35)	2.55	4.48
Understand Nurse Role (1-5)	313	3.62 (0.33)	2.83	4.43
Job Enjoyment (1-6)	313	4.01 (0.52)	2.57	5.31
Intent to Stay (%)	313	74.60 (13.50)	35.00	100.00
Quality of Care (1-4)	313	3.51 (0.26)	2.78	4.00
Fall Rate	313	0.95 (0.73)	0.00	5.36
Pressure Injury Rate	305	3.41 (4.19)	0.00	27.74
CAUTI Rate	300	1.04 (1.13)	0.00	6.59
CLABSI Rate	300	0.71 (0.78)	0.00	5.82

Table 2: Correlation Coefficients					
	Conflict Management	Demonstrates Respect	Consider Root Causes	Share Accountability	Understand Nurse Role
Job Enjoyment	0.41**	0.43**	0.45**	0.47**	0.50**
Intent to Stay	0.19**	0.22**	0.22**	0.22**	0.25**
Quality of Care	0.29**	0.33**	0.35**	0.39	0.40
Fall Rate	-0.05	-0.08	-0.07	-0.05	-0.04
Pressure Injury Rate	-0.10	-0.12*	-0.14*	-0.08	-0.12*
CAUTI Rate	-0.07	-0.11	-0.02	-0.05	-0.10
CABSI Rate	-0.01	-0.03	0.02	0.00	-0.03
* Correlation is significant at the .05 level, ** Correlation is significant at the .01 level					

Results

- The highest collaboration item was Demonstrates Respect, and the lowest item was Share Accountability (Table 1)
- Job enjoyment had the highest correlation with the collaboration items (Table 2)
- Intent to Stay had weak correlation to the collaboration items (Table 2)
- Quality of Care had significant correlation with Conflict Management, Demonstrates Respect, and Consider Root Causes, but not Share Accountability and Understand Nurse Role (Table 2)
- Pressure Ulcer Injury Rate had a low negative correlation with Demonstrates Respect, Consider Root Causes, and Understand Nurse Role (Table 2)

Conclusions

Results from this study provide insight to the importance of effective nurse-physician collaboration, highlight areas for improvement, and reveal opportunities for future research. We found nurse job enjoyment outcomes correlate with nurse-physician collaboration. Our findings are similar to previous research which has found that work environments with better interprofessional collaboration result in higher nurse job satisfaction and lower intent to leave. Research on interventions has found that workshops to promote mutual understanding of roles and values of each profession to be effective in enhancing collaboration.

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