

## The Impact of Physician-Nurse Communication on Nurses' Satisfaction at Tertiary Referral Hospital Critical Care Unit



### Medical Science

**KEYWORDS :** Nurses Satisfaction at work Nurse-Physician Relationship, Intensive Care Unit.

**Khaled Al Jamaan**

Department of Pediatric Hematology/Oncology, King Abdul-Aziz Medical City, National Guard Health Affairs. 2. King Saud Bin Abdul-Aziz University for Health Sciences, P.O. Box: 22490, Riyadh 11426, Saudi Arabia

**Saleh Aloraibi**

Department of Pediatric Hematology/Oncology, King Abdul-Aziz Medical City, National Guard Health Affairs. 2. King Saud Bin Abdul-Aziz University for Health Sciences, P.O. Box: 22490, Riyadh 11426, Saudi Arabia

### ABSTRACT

*Nurses' satisfaction increase nurses' productivity, efficiency and retention but there are gap in the literature in particular about nurses' satisfaction about their communication with physicians. The main aim of this study was to look at the impact of physician-nurse communication on nurses' satisfaction from nurses' perspectives. **Methods:** The researcher applied a Nurse-Physician Questionnaire for data collection with 55 nurses who works at Pediatric Intensive Care Unit nurses at King Abdul-Aziz Medical City in Riyadh. The entire questionnaire consists of 47 scales used to measure variables that affect relationships between nurses and physicians. All items of communication were analyzed using ANOVA test comparing the mean of agreement level of different communication domains with satisfaction level. **Results:** Response rate for Pediatric Intensive Care Unit nurses was 75% with more than 50% of the participated nurses were satisfied with their communication with physicians and only less than 20% were not satisfied. The nurses were all females with more than 10 years of nursing experience, the majorities were expatriates and their ages ranged between 30 and 40 years old. **Conclusion:** It is concluded from the results that the majority of nurses who work in hospital intensive unit were satisfied with their communications with physicians who work at the same department, this important as this communication may enhance patients care as well as nursing retention at work. This study benefits the nursing profession by adding knowledge with regard to nurses' job satisfaction with their communication with physician in hospitals' critical care unit.*

### Introduction

Job satisfaction defined as the degree of positive affect towards a job or its components. Satisfied nurses are more likely to stay not only in the profession of nursing but also in the organization in which they are satisfied [1]. Nurses' satisfaction was focus point in several nurses-physician communication studies. In one few study for example, they find that nurse-physician communication is a significant mediating variable in nurses' satisfaction [2-4]. The benefit of nurses' satisfaction reflected on their job performance, indicating that communication satisfaction may impact more than just communication itself [5]. Other benefits of high-quality communications between nurses and physician include: collaboration productivity enhancement; morale for all caregivers; enhance decision making ability and improve patients' safety [4-7]. Shortened length of hospital stay, decreased mortality rate, decreased adverse patient complications, and improved quality of care were other positive profits from good communications between physicians and nurses [8-9]. In addition, poor communications between nurses and physicians were particularly investigated in intensive care units. Studies on the outcomes of intensive care units have shown that disturbed communication among nurses and physicians is the most significant factor associated with increased hospital mortality [10-11]. In another study, verbal miss-communication between nurses and physicians was responsible for 37% of all medical errors [12]. From the previous studies findings the advantages and benefits of high quality communications between nurses and physicians and the negative impact of miss communication necessitate the need to conduct this study.

Nurses' retention at work is also another important factor as a result of job satisfaction. Though, this is very important especially in Saudi Arabia where there are severe shortages of qualified nurses there are limited study looking at nurses' job satisfaction.

In Saudi Arabia, one study examined job satisfaction among 360 Saudi nurses. The overall job satisfaction was found to be moderate. The most important determinants of job satisfaction were recognition, technical aspects of supervision, work conditions, utilization of skills, pay and job advancement[13]. In another

Saudis' study Saudi nurses (n = 499) were: least satisfied regarding working environment, salary, promotions and hospital's policies; and dissatisfied with fairness of the performance appraisal system, bonuses, paid time off and statement of recognitions of achievements [14]. In their study 17% of the participants in the study intended to leave, while more than half of the participants could not tell whether they intended to quit or not. However, none of these studies looked at job satisfaction in relation to Physician- nurse communication and compare the results with non Saudis nurses. In our study we looked at the impact of physician-nurse communication on nurses' satisfaction which is very important as nurses are the first-line health-care providers who spend more time and effort with patients than other healthcare. Additionally, nurses satisfaction increase nurses productivity, efficiency and retention [15-17]. Therefore, the aim of this study was to look at the impact of physician-nurse communication on nurses' satisfaction from nurses' perspectives.

### Materials and Methods

A descriptive cross-sectional design was used in this study. The study protocol received ethical approval from the Research Council of the King Saud Bin Abdulaziz before the study was conducted. Informed consent was taken from the department and the nurses and confidentiality statement for each participant was given. The study was conducted at King Abdul-Aziz Medical City in the Pediatric Intensive Care Unit( KAMC-RD ). The KAMC-RD is a well recognized trauma center which necessitates having competent health care providers able to deal with these critical patients. Patients are usually cared for by a team of specialized physicians, an ICU nurse with a one to one nurse-patient ratio and a number of allied health supportive staff. The study targeted all registered nurses who work at the PICU (n=75).

The Nurse-Physician Questionnaire has high reliability and was used to determine Nurse-Physician communication[18] and was used and adapted in previous studies[19-20]. In this study only part of ICU nurse-physician communication questionnaire was used. For validity purposes, the modified section of the instrument underwent a local validation process through a pilot study and interview process; the questionnaire was distributed to a fo-

cus group of five nurses from the pediatric oncology unit in the attendance of the primary investigator (PI) and all the questions were reviewed for clarity and appropriateness. The entire questionnaire consists of 47 scales used to measure variables that affect relationships between nurses and physicians. As this study focused on nurse-physician communication, only the relevant scales for measuring between-group communication were utilized. All scales utilize a 5-point Likert-type rating, ranging from 1 (strongly disagree) to 5 (strongly agree). The participants' demographic data such as age, gender, citizenship, degree of education, years of experience, and number of working years in the PICU were also collected.

The questionnaires were distributed to all PICU nurses by the charge nurse and were given one week time to complete and return to a special box in the PICU to ensure confidentiality. Completed surveys were collected from the box by the principle investigator of this study.

**Statistical Analysis:** Data analysis was computed with the Statistical Package for Social Sciences (SPSS). Summation of all item answers within each domain was then converted to percentages for each domain for easier comparison as follows; 5=100%, 4=80%, 3=60%, 2=40%, and 1=20%. A mean score of more than 60% was considered general agreement with the item. Descriptive analysis is presented as frequencies and percentages for categorical variables and as mean and standard deviation ( $\pm$  SD) for numerical variables (e.g. age, years). ANOVA was used to compare the mean of agreement level of different communication domains with satisfaction level. A p-value of  $<0.05$  is considered as statistically significant for all the statistical tests.

#### Results:

**Demographic data :** Questionnaire was distributed to all registered nurses who work at PICU, 55 nurses responded, with a response rate of 75 %. Participants' demographic data: All participants were females and the majorities were from the Philippines (69%) while only 10% were Saudi and 43% of participants were between 30 and 40 years of age. The majority of the nurses (54%) had more than 10 years of nursing experience, with 46% of nurses spending between six to ten years in PICUs, though most nurses (72%) have spent less than six years at KAMC-RD PICU indicating that most are new recruits to the institute. Most nurses were educationally prepared at the bachelor level (96 %).

**Nurses' Satisfaction:** Nurses' satisfaction with nurse-physician communication: More than 50% of the participants were satisfied with their communication with physicians, in comparison to less than 20% of them who were not satisfied, and almost 30% were neutral in their perception toward nurse – physician communication. For more details about the nurses' satisfaction with nurse-physician communication please see (Figure 1).

**Discussion:** The result of this study showed that most nurses were satisfied with their communication with physicians in intensive care unit at state hospital. This finding was in agreement with other previous studies [2-4]. Findings from this study also revealed prospects onto a wide variety of factors contributing to communication satisfaction.

**Factors that affect nurses' satisfaction about physician-nurse communication in pediatric critical care:** Age, years of experiences and levels of educations were main factors that affect nurses' satisfaction about physician-nurse communication in pediatric critical care at tertiary hospital in Riyadh Saudi Arabia.

**Age:** Nurses' satisfaction with communication did not vary significantly by age with better satisfaction for those who are above

40 year of age. This findings was in agreement with other Saudis' studies that older nurses were more satisfied and more committed to their jobs than younger ones [17, 21-22]. The possible explanation of these findings could be that young nurses have greater opportunities to find other jobs with higher wages and more benefits, especially if they have high qualification and work in hospitals at a lower salary than other nurses [21]. However, other studies contradict these findings [23-24].

**Years of experiences:** There was a significant positive relationship between years of experience in PICU and satisfaction with communication ( $p = 0.01$ ). This important finding in this study was in consistent with other studies findings [13;21].

Experience can play an essential role in maintaining the stability of work, the job satisfaction of nurses and decreasing the turnover rate among nursing staff. Many researchers have shown a positive effect of years of experience on job satisfaction [13; 25-27].

However, these studies looked at the relationship between years of experiences and job satisfaction while this study focused mainly on physician-nurse communication.

**Level of education:** The degree of nurses' education affected communication satisfaction. nurses who have a bachelor degree ( $n = 49$ ) were significantly more satisfied, whereas nurses who have diploma degree ( $n = 2$ ) were significantly less satisfied with communication. These findings are more related to the Saudi Arabia situation as most Saudis nurses have a Diploma in nursing, more recently, most nurses are graduating with a BSN. Education levels are related to job satisfaction worldwide, and there are numerous studies that have identified this relationship. One of these was a study conducted in United States nurses which had a response rate of 85 per cent from a population of 4,418. The findings of this study showed that job satisfaction was higher for nurses with lower levels of education [28-30]. This finding had disagreement with our findings and this could be explained by the fact that only two nurses carried diplomas makes it difficult to compare, conclude or generalize such a result. Moreover, work in Taiwan confirmed this finding, suggesting that nurses who have lower educational levels are more satisfied with their jobs. According to nurses with higher levels of education are more likely to quit their jobs, especially if they find greater benefits in other organizations and have limited opportunities in their current organization.

Higher education and training levels often equate to higher pay, but this is not always the case. In Kuwait, graduate nurses and nurses with nursing diplomas receive the same salary because the nurses' salary structure in Kuwait does not discriminate between the two groups [31]. However, the healthcare system salaries are not standardized by the MoH of Saudi Arabia and are sometimes based more on nationality than on qualifications and experience. For example, nurses from Malaysia with low qualifications receive higher salaries than nurses from India and the Philippines, who have high qualifications.

#### Limitations of the study

The study findings should be interpreted taking into consideration the following limitation: the study used a convenience sample from only one public hospital. Although similar problems in other hospitals are expected to be comparable, generalizing the findings would require a broader study across different units.

#### Conclusion

The results of the study emphasized the importance of communication between physician and nurses in enhancing job satisfaction. The majority of nurses who work in hospital intensive

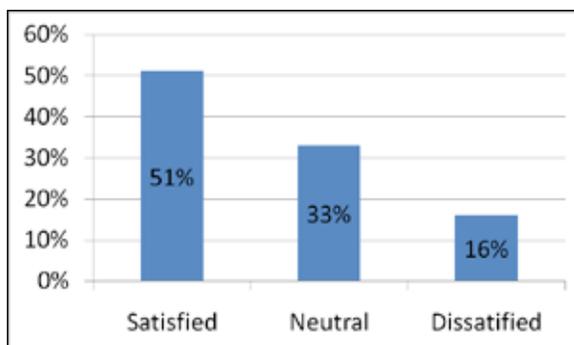
unit were satisfied with their communications with physicians who work at the same department, this important as this communication may enhance patients care as well as nursing retention at work. It is recommended that further research to examine the perception of physicians on nursing –physician relationship is needed involving larger sample size from other departments and other hospitals for generalization of the outcome. Addressing communication as part of the health care professional curriculum is also recommended in order to provide better care for patients. Furthermore, it would be useful to use triangulation research method such as mixed quantitative and qualitative method and methods such as open-ended questions or interviews or group discussions could highlight in more depth the actual issues or problems with communication within the identified scales.

**Implications for nursing practice**

Several implications arise from the results of the present study. This study provided insights into specific components of the factors that influence nurses’ satisfaction. This study benefits the nursing profession by adding knowledge with regard to nurses’ job satisfaction with their communication with physician in hospitals’ critical care unit. Additionally, health policy makers can use the data from this study to develop effective communication that can enhance nurses’ job satisfaction and their intention to stay at work.

**Table 1: Demographic characteristics among study**

Characteristics	N (%)
Age	
Under 30 years	14 (26%)
30-40 years	23 (43%)
Above 40 years	16 (30%)
Degree of education	
Bachelor	49 (96%)
Diploma	2 (4%)
Years of experience as a nurse	
Less than 6 years	8 (15%)
Between 6-10 years	17 (31%)
More than 10 years	29 (54%)
Number of years working in PICUS	
Less than 6years	14 (26%)
Between 6-10	25 (46%)
More than 10	15 (28%)
Number of years working at KAMC-RD PICU	
Less than 6 years	39 (72%)
Between 6-10	11 (20%)
More than 10	4 (7%)



**Fig.1 Overall nurses’ satisfaction with nurse-physician communication**

**Table 4. Table.4 ANOVA test assessing overall satisfaction based on different characteristics**

Characteristics	n	Mean± SD	p-value
Age			
Under 30 years	14	3.1 ±0.8	0.46
30-40 years	23	3.5 ±0.7	
Above 40 years	16	3.4 ±0.8	
Degree of education			
Bachelor	49	3.4* ±0.8	0.01*
Diploma	2	2.5* ±0.7	
Years of experience as a nurse			
Less than 6 years	8	2.6* ±0.5	0.01*
Between 6-10 years	17	3.5 ±0.7	
More than 10 years	29	3.4 ±0.8	
Number of years working in PICUS			
Less than 6years	30	3.1 ±0.8	0.6
Between 6-10	15	3.3 ±0.8	
More than 10	9	3.5 ±0.7	
Number of years working at KAMC-RD PICU			
Less than 6 years	39	3.2 ±0.8	0.3
Between 6-10	11	3.6 ±0.6	
More than 10	4	3.5 ±0.6	

\* Significantly different means

**Table.5 Tukey’s test for pair-wise comparison of significant difference in role of variable on satisfaction**

Hospital	p-value
Degree of education Bachelor vs. Diploma	0.01*
Years of experience as a nurse	
More than 10 years vs. Less than 6 years	0.07*
Between 6-10 years vs. Less than 6 years	0.06*
Between 6-10 years vs. More than 10 years	0.7

## REFERENCE

1. Adams, A., & Bond, S. (2000). Hospital nurses' job satisfaction, individual and organizational characteristics. *Journal of advanced nursing*, 32(3), 536-543.
2. Manojlovich, M. B. (2007). Healthy work environments, nurse-physician communication, and patients' outcomes. *American Journal of Critical Care*, 16, 536-543.
3. Manojlovich, M., & Antonakos, C. (2008). Satisfaction of intensive care unit nurses with nurse-physician communication. *Journal of Nursing Administration*, 38, 237-243.
4. Sterchi, L. S. (2007). Perceptions that affect physician-nurse collaboration in the perioperative setting. *AORN Journal*, 87, 45-57.
5. Zwarenstein, M., & Reeves, S. (2006). Knowledge translation and interprofessional collaboration: Where the rubber of evidence-based care hits the road of teamwork. *The Journal of Continuing Education in the Health Professions*, 26, 46-54.
6. Nelson, J. W. (2005). Improving retention through nurse/physician communication. *Nurse Leader*, 3, 54-56.
7. Simpson, K. R. (2006). Nurse-physician communication during labor and birth: Implications for patient safety. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 35, 547-556.
8. Narasimhan, M. E. (2006). Improving nurse-physician communication and satisfaction in the intensive care unit with a daily goals worksheet. *American Journal of Critical Care*, 15, 217-222.
9. Schmalenberg, C. K. (2005). Excellence through evidence: securing collegial/collaborative nurse-physician relationships, Part 2. *Journal of Nursing Administration*, 35, 507-514.
10. Knaus, W. A., Draper, E. A., Wagner, D. P., Zimmerman, J. E. (1986). An evaluation of outcome from intensive care in major medical centers. *Annals of Internal Medicine*, 104, 410-418.
11. Manojlovich, M., DeCicco, B. (2007). Healthy work environments, nurse/physician communication, and patient outcomes: making the link. *American Journal of Critical Care*, 16:536-543.
12. Donchin, Y., Gopher, D., Olin, M., Badihi, Y., Biesky, M., Sprung, C. L., ....., Cotev, S. (1995). A look into the nature and causes of human errors in the intensive care unit. *Critical Care Medicine*, 23 (2), 294-300.
13. Al-Ahmadi, H. A. (2002). Job satisfaction of nurses in Ministry of Health Hospitals in Riyadh, Saudi Arabia. *Saudi medical journal*, 23(6), 645-650.
14. Zaghoul, A. A., Al-Hussaini, M. F., & Al-Bassam, N. K. (2008). Intention to stay and nurses' satisfaction dimensions. *Journal of multidisciplinary healthcare*, 1, 51.
15. Adams, A., & Bond, S. (2001). Hospital nurses' job satisfaction, individual and organizational characteristics. *Journal of advanced nursing*, 36(4), 538-545.
16. Lu, H., While, A. E., & Barriball, K. L. (2005). Job satisfaction among nurses: a literature review. *International journal of nursing studies*, 42(2), 211-227.
17. Abualrub, R. F., Omari, F. H., AL RUB, A. B. U., & FAWZI, A. (2009). The moderating effect of social support on the stress-satisfaction relationship among Jordanian hospital nurses. *Journal of nursing management*, 17(7), 870-878.
18. Shortell, S. M., Rousseau, D. M., Gillies, R. R., Devers, & K. J. Simons, T. L. (1991). Organizational assessment in intensive care units (ICUs): Construct development, reliability, and validity of the ICU nurse-physician questionnaire. *Medical Care*, 29(8):709-726.
19. Doran, D. I., Sidani, S., Keatings, M., & Doidge, D. (2002). An empirical test of the Nursing Role Effectiveness Model. *Journal of Advanced Nursing*, 38(1):29-39.
20. Manojlovich, M., DeCicco, B. (2007). Healthy work environments, nurse/physician communication, and patient outcomes: making the link. *American Journal of Critical Care*, 16:536-543.
21. Al-Aameri, A. S. (2000). Job satisfaction and organizational commitment for nurses. *Saudi Medical Journal*, 21(6), 531-535.
22. Cummings, G. G., Olson, K., Hayduk, L., Bakker, D., Fitch, M., Green, E., .., & Conlon, M. (2008). The relationship between nursing leadership and nurses' job satisfaction in Canadian oncology work environments. *Journal of nursing management*, 16(5), 508-518.
23. Hu, J., & Liu, H. (2004). Job satisfaction among nurses in China. *Home health care management & practice*, 17(1), 9-13.
24. Larrabee, J. H., Janney, M. A., Ostrow, C. L., Withrow, M. L., Hobbs, G. R., & Burant, C. (2003). Predicting registered nurse job satisfaction and intent to leave. *Journal of Nursing Administration*, 33(5), 271-283.
25. Almalki, M. J., FitzGerald, G., & Clark, M. (2012). The relationship between quality of work life and turnover intention of primary health care nurses in Saudi Arabia. *BMC health services research*, 12(1), 314.
26. Kacel, B., Miller, M., & Norris, D. (2005). Measurement of nurse practitioner job satisfaction in a Midwestern state. *Journal of the American Academy of Nurse Practitioners*, 17(1), 27-32.
27. Kavanaugh, J., Duffy, J. A., & Lilly, J. (2006). The relationship between job satisfaction and demographic variables for healthcare professionals. *Management Research News*, 29(6), 304-325.
28. Rambur, B., McIntosh, B., Palumbo, M. V., & Reinier, K. (2005). Education as a determinant of career retention and job satisfaction among registered nurses. *Journal of Nursing Scholarship*, 37(2), 185-192.
29. Yin, J. C. T., & Yang, K. P. A. (2002). Nursing turnover in Taiwan: a meta-analysis of related factors. *International Journal of Nursing Studies*, 39(6), 573-581.
30. Betkus, M. H., & MacLeod, M. L. (2004). Retaining public health nurses in rural British Columbia: the influence of job and community satisfaction. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, 54-58.
31. Al-Enezi, N., Chowdhury, R. I., Shah, M. A., & Al-Otobi, M. (2009). Job satisfaction of nurses with multicultural backgrounds: a questionnaire survey in Kuwait. *Applied Nursing Research*, 22(2), 94-100.