Assessing Nursing Shift Handoff and Patient Safety Culture in Korean Hospitals

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BACKGROUND

- Joint Commission's review of sentinel events shows communication is particularly susceptible to error during patient handoff.[1]
- According to theory of planned behavior, nurses' observations of their hospital's practice in handoffs influence perceptions of patient safety culture and impact their behavioral responses.[2]
- Higher levels of patient safety culture are associated with fewer adverse events, decreasing patient mortality.
- How nurses perceive the shift handoff process and handoff errors contribute to patient safety.

PURPOSE

This study examined

- Nurses' perception of the handoff errors, the cause of handoff errors and patient safety culture
- The relationship among handoff-related variables and patient safety culture among nurses and managers working in general wards and ICUs in South Korea.

METHODS

STUDY DESIGN

Descriptive study

SAMPLE

2 nurses and 1 unit managers were selected for each ICU and general ward at 91 hospitals in South Korea. 4 surveys were completed per unit for a total of 496 completed (return rate 90.8%).

INSTRUMENTS

The questionnaire of General and Handoff Characteristics, Experience of Handoff Errors, Causes of Handoff Errors, and Perception of Patient Safety Culture were used.

DATA ANALYSIS

Descriptive statistics, ANOVA, and Pearson's correlation coefficient

RESULTS

Table 1. Handoff Error Experience and Perception of Patient Safety Culture according to Demographic and Handoff Related Characteristics

Characteristics	Categories	Handoff error experience		Perception of patient safety culture	
		Mean±SD	F(p)	Mean±SD	F(p)
Level of education completed	3-year program	1.77±0.30	0.196 (.822)	3.58±0.38	20.107 (<.001) **
	4-year program, RN-BSN	1.79±0.28		3.66±0.38	
	Master's degree or higher	1.81±0.25		3.87±0.36	
Rank	Staff Nurse			3.60±0.38	60.930 (<.001) **
	Unit manager			3.88±0.35	
Unit	ICU	1.74±0.27	8.732 (.003)**	3.65±0.40	5.616 (.018) *
	General ward	1.83±0.30		3.74±0.38	
Clinical experience at work (months)	> 12	1.66±0.26	2.030 (.061)	3.78±0.42	12.807 (<.001) **
	13-36	1.84±0.32		3.56±0.34	
	37-60	1.80±0.26		3.53±0.36	
	61-120	1.73±0.29		3.60±0.39	
	121-180	1.82±0.24		3.67±0.40	
	181-240	1.74±0.22		3.77±0.36	
	> 241	1.75±0.21		3.91±0.34	
Handoff methods	Verbal handoffs using Kardex	1.82±0.32	1.358 (.259)	3.61±0.41	3.980 (.019) *
	Verbal handoffs referring to EMR	1.78±0.28		3.73±0.39	
	Others	1.74±0.23		3.71±0.36	
Satisfaction with current handoff method	Satisfied	1.77±0.28	3.473 (.032) *	3.75±0.38	8.493 (<.001) **
	Neutral	1.80±0.27		3.65±0.37	
	Unsatisfied	1.91±0.34		3.52±0.42	
Handoff guideline Available	A written guideline	1.75±0.29	1.532 (.206)	3.80±0.34	8.460 (<.001) **
	A checklist for a handoff	1.72±0.41		3.70±0.50	
	Both guideline and checklist	1.89±0.29		3.81±0.42	
	Neither	1.80±0.27		3.61±0.38	
Importance of han doffs for patient safety	Important	1.78±0.28	2.509 (.083)	3.70±0.39	5.756 (.003) *
	Neutral	2.09±0.28		3.23±0.42	
	Unimportant	1.63		3.24±0.08	

*<.05, **<.001

Table 2. Intervariable Correlations

Variables	1	2	3	4	5	6	7	8	9	10	11
1	1										
2	.31**	1									
3	.27**	.45**	1								
4	.26**	.29**	.50**	1							
5	.38**	.46**	.60**	.48**	1						
6	-.14*	-.05	-.03	-.10	-.15**	1					
7	-.28**	-.17**	-.05	-.10	-.26**	.61**	1				
8	-.16**	-.14*	-.09	-.12*	-.10	.19**	.35**	1			
9	-.21**	-.24**	-.15**	-.14*	-.23**	.23**	.31**	.15**	1		
10	-.35**	-.31**	-.20**	-.22**	-.40**	.43**	.58**	.25**	.43**	1	
11	-.34**	-.26**	-.14*	-.19**	-.35**	.69**	.88**	.51**	.45**	.84**	1

1. Experience in making errors in handoffs, 2. Workload, 3. Capability of nurses, 4. Relationship between nurses, 5. Handoff system, 6. Manager's awareness of safety, 7. Communication and the communication process, 8. Frequency of medical error reports and incident reports, 9. Overall safety level of patients, 10. Collaboration across hospital units, 11. Perception of patient safety culture, *<.05, **<.001

CONCLUSIONS

- After 1 year work experience nurses reported a decrease in perception of patient safety culture but perceptions increased after 15-years experience.
- Staff nurses and unit managers reported different perception of patient safety culture.
- System and workload factors moderately correlated with handoff errors, and collaboration across hospital units was relatively higher association with experience of handoff errors.

IMPLICATIONS

- Unit managers are key person to serve as mediators and facilitators by improving handoff and increasing patient safety culture perception.
- Hospitals should ensure sufficient staffing and management support to improve safety and prioritize increasing collaboration across hospital units.

REFERENCE

1. Joint Commission: Sentinel Event Data - Root Causes by Event Type. Retrieved from: http://www.jointcommission.org/Sentinel_Event_Statistics/(2014).
2. Boan DM, Nadzam D, Clapp JR. The impact of variance in perception of the organization on capacity to improve in hospital work groups. Group Dyn. 2012;16(3):206–2179. doi: 10.1037/a0028547