



Influence of Patient Safety Culture on Nurses' Patient Safety Compliance and Participation Behaviors

J. J. LEE¹, H. Ji¹ and S. E. LEE²

1 Severance Hospital, Seoul, Republic of Korea

2 College of Nursing · Mo-Im Kim Nursing Research Institute, Yonsei University, Seoul, Republic of Korea

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INTRODUCTION

- Nurses' patient safety compliance and participation behaviors are vital for improving patient safety in healthcare organizations [1].
- Patient safety compliance behavior refers to safety behavior such as adhering safety guidelines and rules, while patient safety participation behavior involves extra safety activities that require voluntarily participation for improving patient safety [2].
- Research has shown that safety culture is an identified important predictor for safety behaviors of workers in high-risk industry such as construction industry [3], however, the relationship has not been well examined in healthcare contexts [1].
- This study aimed to examine the effects of patient safety culture on nurses' patient safety compliance and participation behaviors.

METHOD

- Design: Correlational, cross-sectional
- Sample: 913 nurses who provided direct care to patients in one acute hospital in Korea
- Independent variable: patient safety culture measured using the Korean version of the Hospital Survey on Patient Safety Culture 2.0 [4]
- Dependent variables: patient safety compliance and participation behaviors measured using relevant domains of the Safety Performance scale [5].
- Statistical analysis: multiple linear regressions

RESULT

- Among 10 patient safety culture domains, **organizational learning-continuous improvement** ($\beta=.21$, $p<.001$) was the strongest predictor for nurses' **patient safety compliance behaviors**, followed by **communication about error** ($\beta=.13$, $p=.001$), **communication openness** ($\beta=.13$, $p<.001$), **handoffs and information exchange** ($\beta=.13$, $p<.001$), **unit manager support for patient safety** ($\beta=.09$, $p=.014$), and **teamwork** ($\beta=.08$, $p=.018$).
- For **patient safety participation behaviors**, **organizational learning-continuous improvement** ($\beta=.26$, $p<.001$) was, again, the strongest predictor, followed by **hospital management support for patient safety** ($\beta=.13$, $p<.001$), **communication openness** ($\beta=.11$, $p=.005$), **handoffs and information exchange** ($\beta=.08$, $p=.023$), **communication about error** ($\beta=.08$, $p=.038$), and **teamwork** ($\beta=.07$, $p=.047$).

Table 1. Factors Influencing Nurses' Safety Compliance Behaviors

Variables	B	SE	β	t	p
Teamwork	0.08	0.03	.08	2.38	.018
Staffing and work pace	0.03	0.02	.05	1.61	.108
Organizational learning - continuous improvement	0.18	0.03	.21	5.94	<.001
Response to error	-0.01	0.03	-.01	-0.34	.735
Supervisor, manager, or clinical leader support for patient safety	0.08	0.03	.09	2.47	.014
Communication about error	0.12	0.04	.13	3.35	.001
Communication openness	0.12	0.03	.13	3.58	<.001
Reporting patient safety events	-0.02	0.02	-.02	-0.82	.415
Hospital management support for patient safety	0.03	0.03	.04	1.24	.215
Handoffs and information exchange	0.11	0.03	.13	3.98	<.001

$R^2=.36$, Adjusted $R^2=.35$, $F=41.60$, $p<.001$

Note. Adjusted for unit and hospital tenure.

Table 2. Factors Influencing Nurses' Safety Participation Behaviors

Variables	B	SE	β	t	p
Teamwork	0.08	0.04	.07	1.99	.047
Staffing and work pace	0.02	0.02	.04	1.27	.205
Organizational learning - continuous improvement	0.26	0.03	.26	7.47	<.001
Response to error	-0.01	0.03	-.01	-0.42	.674
Supervisor, manager, or clinical leader support for patient safety	0.01	0.04	.01	0.29	.769
Communication about error	0.08	0.04	.08	2.08	.038
Communication openness	0.11	0.04	.11	2.84	.005
Reporting patient safety events	0.05	0.02	.06	1.9	.057
Hospital management support for patient safety	0.12	0.03	.13	3.79	<.001
Handoffs and information exchange	0.07	0.03	.08	2.28	.023

$R^2=.34$, Adjusted $R^2=.33$, $F=37.98$, $p<.001$

Note. Adjusted for unit tenure and hospital tenure.

CONCLUSIONS

- Organizational learning is the most important predictor for both nurses' safety compliance and safety participation behaviors.
- Efforts should be made to create culture that support continuous learning for improving patient safety.
- With support from not only hospital management but also unit supervisors, open communication about safety concerns and information exchanges should be encouraged to enable nurses' safety compliance and safety participation behaviors in clinical settings.

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CONTACT INFORMATION

- JJL: LJW186111@yuhs.ac
- HJ: WLGUS0122@yuhs.ac
- SEL: LEESE@yuhs.ac

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