

# A Study of the Relationship between Compassion fatigue, Somatization, and Silencing response among Hospital nurses

## : Focusing on the Mediating effects of Silencing response



Sunhwa Kim<sup>1\*</sup>, Taehwa Lee<sup>2</sup>

<sup>1</sup>Hanyang University Hospital Vascular Unit, RN

<sup>2</sup>Nursing policy Research Institute College of Nursing , Yonsei University, PhD, RN



## Introduction

**Keeping constant and direct contact with patients**, nurses at hospitals provide professional care for them experiencing diverse trauma. This kind of work might cause nurses to increase compassion fatigue, somatization, and silencing response and in addition such climates can degrade the nurse’s quality of life and result in the low quality of service and in the end negative effects to patients.

**The purpose** of this study was to identify Compassion fatigue, Somatization, and Silencing response among nurses and understand intermediate effects between variables.

## Methods

■ **Design** : A cross-sectional design

■ **Samples** : 240 nurses who were from medical and surgical wards, and emergency room had over six years of experience with shift-work a in 3 hospitals located in the capital area with over 700 beds (**Period** : 2013.4.10 ~ 4.25)

■ **Instrument** :

### A. Compassion fatigue

- Stamm (2010) : Professional Quality of Life Scale version 5 (ProQOL-V)
- A 20-item self-report instrument : 5-point Likert scale
- composed of burnout(BO) and secondary traumatic stress(STS)
- Participants to rate each statement based on their personal experience in the past 30 days)
- range : ≤ 22(Low), 23~41(Moderate), ≥42(High)
- The cronbach’s α : burnout(=.77), secondarty traumatic stress (=.82)

### B. Somatization

- Deregatis(1977) : SCL-90-R somatization scale
- A 12-item self-report instrument : 5-point Likert scale
- The cronbach’s α =.90

### C. Silencing response

- Baranowsky(2002): Silencing Response Scale
- A 15-item self-report instrument : 11-point Liker scale
- range : 0~ 20 (Minimal risk), 21~40(Some ), 41~94 (Moderate ), 95~150(High )
- The cronbach’s α =.88

### ■ Ethical considerations

Approval to conduct this study was granted by the Yonsei University’s Human Research Ethics Committee. At the start of the survey, detailed study information was provided and Participants were informed that completion of the survey implied consent

### ■ Data analysis

SPSSWIN 19.0 was applied to the datas collected with various analytic methods such as frequency analysis, technical statistics, ANOVA, Pearson's correlation coefficients and Stepwise multiple regression.

## Results

**Table 1.** The Descriptive Statistics of Compassion Fatigue, Somatization, Silencing Response of Participants.

(N=240)				
Variables	Categories	n(%)	Mean ±SD	Range
Compassion Fatigue	Secondary trauamtic stress			
	≤22 (Low)	37 (15.4)	28.01±5.59	10~50
	23~41 (Moderate)	201 (83.8)		
Bornout	≥42 (High)	2 (0.8)		
	≤22 (Low)	7 (2.9)	27.48±4.67	10~50
	23~41 (Moderate)	232 (96.7)		
	≥42 (High)	1 (0.4)		
Somatization			23.58±7.85	12~60
Silencing Response	0~20 (Minimal risk)	0 (0)	76.71±19.26	0~150
	21~40 (Some risk)	6 (2.5)		
	41~94 (Moderate risk)	193 (80.4)		
	95~150 (High risk)	41 ( 17.1)		

**Table 2.** Differences of Compassion Fatigue, Somatization, Silencing Response according to General Charateristics

Variables	Categories	n (%)	CF							
			STS		BO		Somatization		SR	
			M±SD	t or F	M±SD	t or F	M±SD	t or F	M±SD	t or F
				(p)		(p)		(p)		(p)
Gender	Male	4 (1.7)	2.00±.82	8.62	2.65±.60	2.14	2.13±.92	.00	4.70±1.22	.42
	Female	236 (98.3)	2.81±.55	(.004)	3.01±.48	(.145)	2.11±.71	(.961)	5.12±1.29	(.517)
Age (year)	20~29 <sup>a</sup>	125 (52.1)	2.85±.59	2.05	3.11±.51	8.26	2.18±.72	2.26	5.31±1.15	8.56
	30~39 <sup>b</sup>	85 (35.4)	2.80±.49		2.92±.39	(<.001)	2.08±.67	(.072)	5.07±1.36	(<.001)
	≥40 <sup>c</sup>	30 (12.5)	2.62±.58		2.77±.52	a>c	1.86±.71	a>c	4.30±1.29	a,b>c
Education	College <sup>a</sup>	111 (46.3)	2.87±.55	1.63	3.10±.50	7.81	2.21±.78	2.06	5.29±1.26	2.68
	University <sup>b</sup>	105 (43.7)	2.76±.58		2.97±.46	(<.001)	2.03±.60	(.130)	5.03±1.26	(.071)
	≥Master <sup>c</sup>	24 (10)	2.68±.50		2.70±.39	a,b>c	2.00±.78		4.69±1.40	
Subjective health status	UnHealthy <sup>a</sup>	78 (32.5)	2.91±.57	10.74	3.26±.46	24.36	2.46±.79	20.34	5.48±1.17	8.28
	Usually <sup>b</sup>	121 (50.4)	2.85±.50	(<.001)	2.94±.41	(<.001)	2.02±.60	(<.001)	5.08±1.31	(<.001)
	Healthy <sup>c</sup>	41 (17.1)	2.45±.58	a,b>c	2.69±.50	a,b>c	1.69±.50		4.51±1.21	a,b>c
Work unit	Medical	103 (42.9)	2.82±.57	1.48	2.99±.49	1.41	2.11±.74	1.27	4.91±1.28	2.28
	Surgical	108 (45.0)	2.83±.53		3.05±.49	(.247)	2.16±.72	(.282)	5.25±1.29	(.105)
	ER	29 (12.1)	2.63±.59		2.89±.47		1.92±.48		5.32±1.23	
Clinical experience (yr)	>5yers <sup>a</sup>	113 (47.1)	2.82±.61	.15	3.05±.49	2.62	2.17±.69	.77	5.34±1.18	6.47
	≥5yers <sup>b</sup>	54 (22.5)	2.78±.50		3.05±.51	(.075)	2.07±.73	(.466)	5.25±1.24	(<.001)
	≥10yers <sup>c</sup>	73 (30.4)	2.78±.53		2.89±.46		2.04±.71		4.67±1.38	a,b>c
Turn over experience	Yes	46 (4.2)	2.58±.55	9.37	2.86±.51	5.04	1.85±.54	7.80	4.62±1.18	8.85
	No	194 (80.8)	2.85±.55	(.002)	3.04±.48	(.026)	2.17±.73	(.006)	5.23±1.28	(.003)
Co-work support	Yes	125 (52.1)	2.71±.56	7.32	2.91±.48	10.74	1.94±.58	15.31	4.93±1.14	5.20
	No	115 (47.9)	2.90±.54	(.007)	3.11±.47	(<.001)	2.29±.78	(<.001)	5.31±1.40	(<.023)

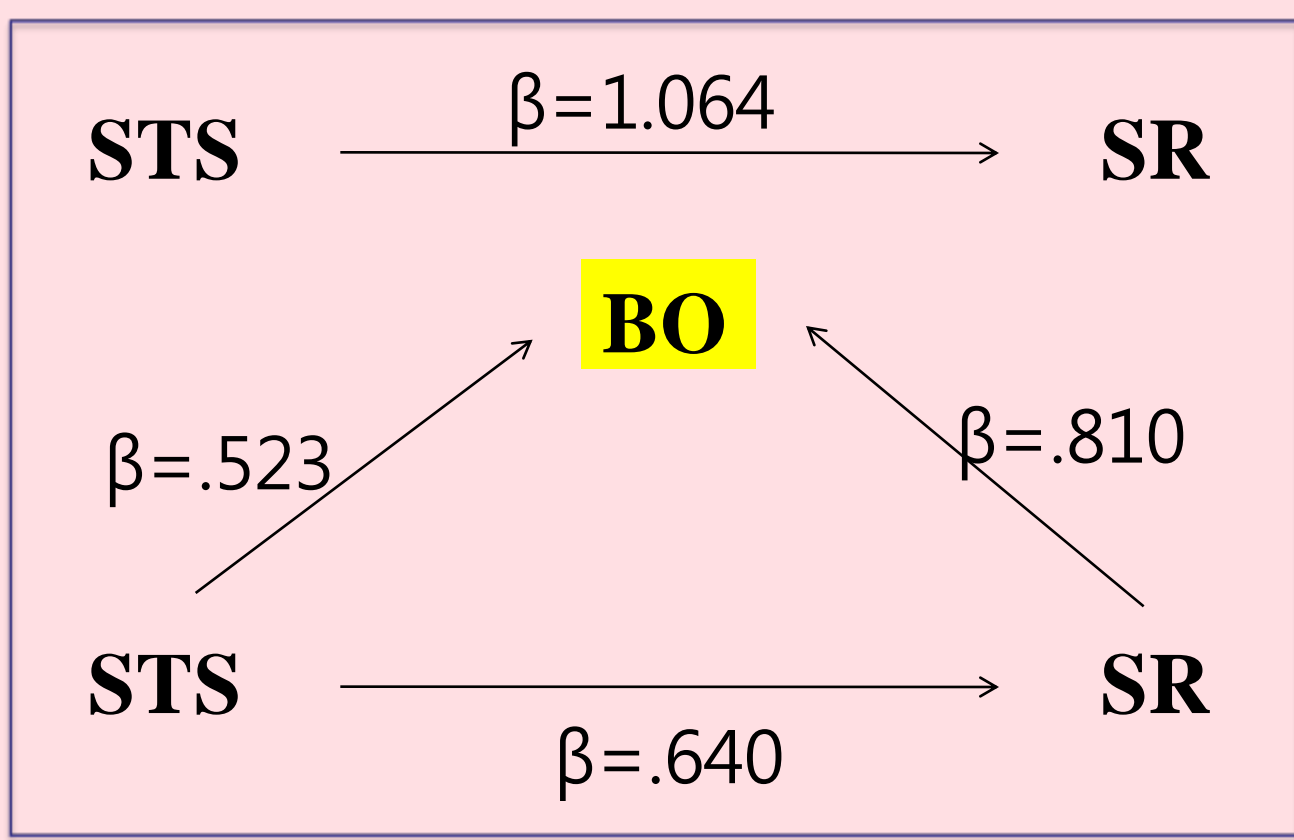
\*\*p<.001

**Table 3.** Correlations among Variables

	STS	BO	Somatization
BO	.601**		
Somatization	.480**	.493**	
SR	.463**	.475**	.417**

**Table 4.** Burnout in Mediating Effects of the Relationship between STS and SR

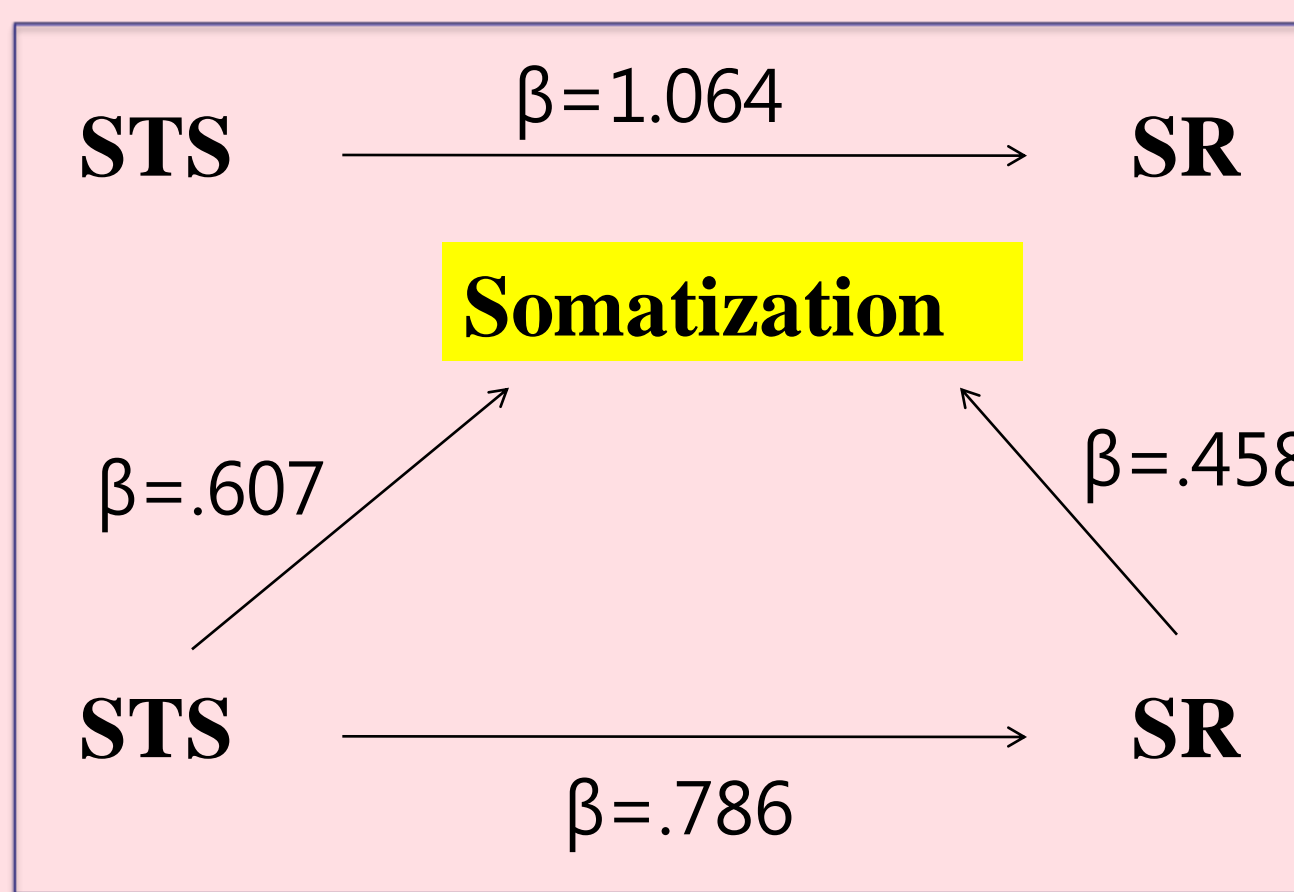
(N=240)				
Step	Predictors	B	t	R <sup>2</sup>
1	STS → BO	.523**	11.597	.361
2	STS → SR	1.064**	8.066	.215
3	STS	.640**	4.029	.275
	BO	.810**	4.438	



**Table 4.** Somatization in Mediating Effects of the Relationship between STS and SR

(N=240)				
Step	Predictors	β	t	R <sup>2</sup>
1	STS → Somatization	.607**	8.451	.231
2	STS → SR	1.064**	8.066	.215
3	STS	.786**	5.384	.264
	Somatization	.458**	3.967	

\*\*p<.001 STS(Secondary Traumatic Stress), BO(Burnout), SR(Silencing Response)



## Conclusions

- ✓ **The result of this study** that intermediary role is played by burnout and somatization in silencing response of nurses is important for effective human resource management.
- ✓ **This study** showed that the intermediary variables of burnout and somatization had a significant difference with ‘subjective healthcare lower’, ‘turnover experience lower’, and ‘supportive coworkers fewer’. This means that the programs need to be developed for the activities of health enhancement for nurses, mentors at work be raised, and transferring should be designed through a careful face-to-face talk.
- ✓ **As silencing response** shows statistically significant difference with ‘age younger’ and ‘clinical experience lower’, the nurse’s silence responding are required to be prevented through the development of the supportive intervention programm based on work experience.
- ✓ **The learner will be able to** use the result of this study to take the the effective human resources management over nurses for the best quality of their life and apply for the establishment of the good system to prevent their silencing response.

