Nursing Surveillance on the Workshift: Model Testing

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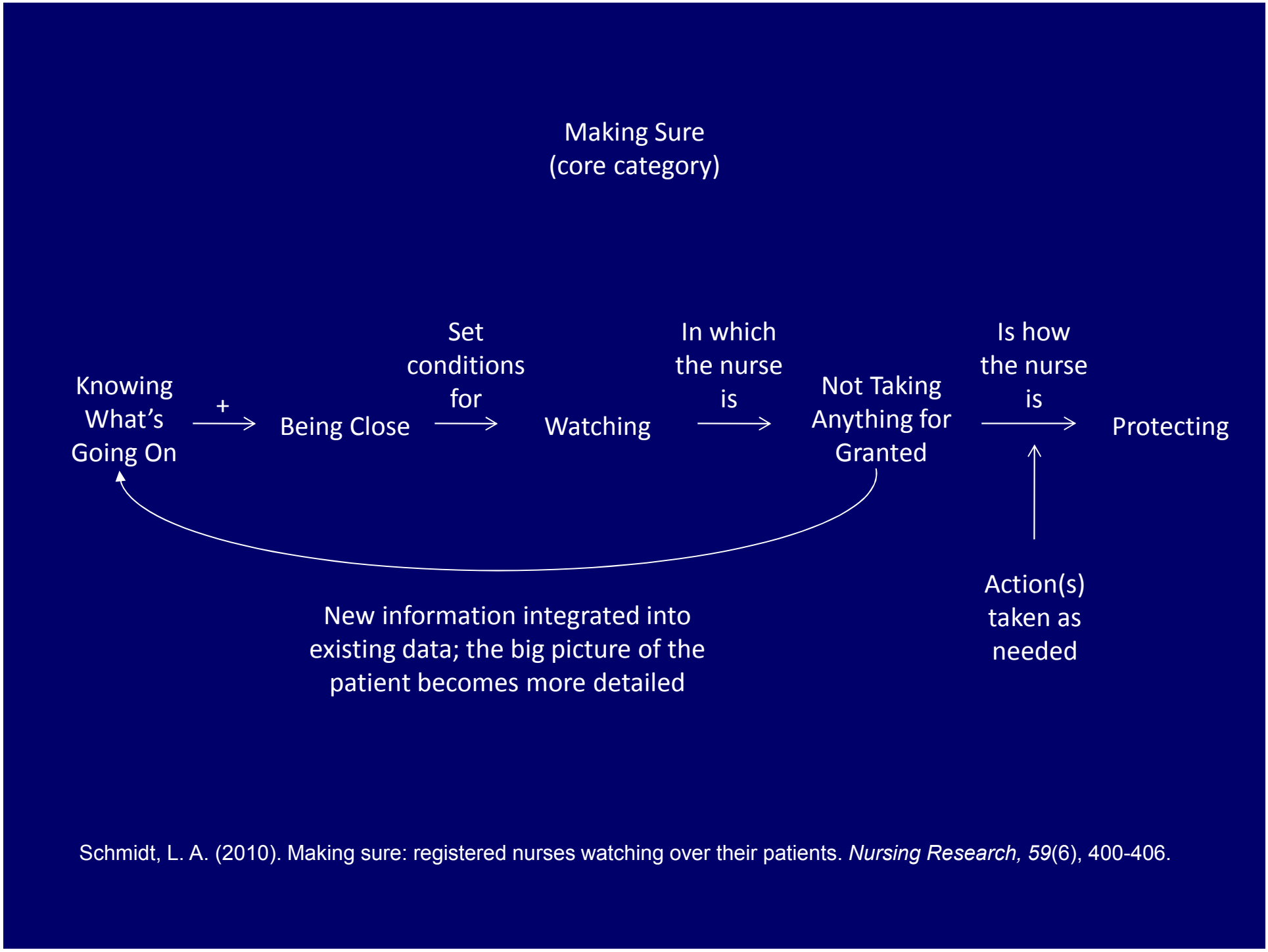
Nightingale on the Importance of Observation

For it may be safely said, not that habit of ready and correct observation will by itself make us useful nurses, but that without it we shall be useless with all our devotion.

But if you cannot get into the habit of observation one way or other, you had better give up the being of a nurse, for it is not your calling, however kind and anxious you may be.

In dwelling upon the vital importance of sound observation, it must never be lost sight of what observation is. It is not for the sake of piling up miscellaneous information or curious facts, but for the sake of saving life and increasing health and comfort.

Nightingale, 1860



Schmidt, L. A. (2010). Making sure: registered nurses watching over their patients. *Nursing Research, 59*(6), 400-406.

Development of a Measure to Operationalize the Process

Items generated using interview data from grounded theory study

152 potential items

Content adequacy assessments

Final Version of Measure for Model Testing Study

62 items

6-point Likert-type scale: Strongly Disagree – Strongly Agree

10 additional items to be answered if assigned patient experienced a complication

Unit, workshift, and demographic information

Research Questions

1. What are the psychometric properties of a measure to operationalize the Watching Over process performed by Registered Nurses?

2. Is the theoretical model of the Watching Over process reproducible with data?

Sample and Sampling

Target Population: Inpatient RNs

Accessible Population: Staff and Per Diem Inpatient RNs from a university affiliated medical center (N = 1549)

Projected 50% return

Data Collection

Mail Survey – Tailored Design Method (Dillman)

Pre-notification letter (beginning of data collection period)

Survey packet with personalized letter and postage paid return, (3-4 days before scheduled workshift), token ($1)

Follow-up letter (7-10 days after survey mailed)

28 day data collection period

Measure Subscales, Sample Items and Cronbach's Alpha Values

Knowing What's Going On: (MS .85, CC .95)

I had a clear understanding of what was happening with my patients

Being Close – Proximity: (MS .84, CC .93)

I was in close proximity to my patients

Watching: (MS .88, CC .94)

I kept a close watch on my patients

Not Taking Anything For Granted: (MS .86, CC, .94)

I noticed the little things going on with my patients

Making Sure: (MS .85, CC .93)

I made sure my patients received all the care they needed

Protecting: (MS .89, CC .96)

I kept my patients safe

Results

Sample Characteristics
(n=616)

Gender:	Female Male	90.9% 7.5%
Marital Status:	Single Married Living with partner Separated Divorced Widowed	25.5% 55.0% 4.2% 0.3% 12.0% 1.1%
Race:	White Black Asian/Pacific Islander	70.6% 11.5% 13.3%
Ethnicity:	Hispanic Non-Hispanic	23.7% 65.3%
Age:	39.16 (11.74) years	Range 22-73 years

Pre-licensure Education:	Diploma Associate's Bachelor's Master's Entry	7.3% 45.6% 44.5% 1.0%
Highest Degree Held:	Diploma Associate's Bachelor's,Nursing Bachelor's, Non-Nursing Master's, Nursing Master's, Non-Nursing Doctorate, Nursing Doctorate, Non-Nursing	5.2% 31.3% 50.5% 7.1% 3.1% 1.6% 0.2% 0.2%
Years Licensed as RN:	12.24 (11.14) years	Range 0-52 years
Years in Current Specialty:	8.20 (8.48) years	Range 0-48 years
Years in Current Position:	6.78 (7.30) years	Range 0-40 years

Unit Information

Unit Type:	Adult Medical -Surgical Adult Critical Care Maternal Child (L&D, Ante-, Post-Partum) Pediatrics (M/S, ICU, Neonatal ICU) Other	37.7% 34.6% 13.3% 12.3% 0.3%
Staff Responsible for Care:	RN only RN – LPN RN – LPN – UAP RN – UAP	44.6% 4.9% 26.9% 23.2%
Number of Beds:	Medical-Surgical: Mean (SD) Median Mode Critical-Care : Mean (SD) Median Mode	40.14 (12.09) 40 50 27.94 (13.83) 27 18

Scheduling Pattern, Job Class, and Compensation

2-week Period Hours	67.08 (12.96) hours	Range 8-88 hours
Work Extra hours	Yes, paid overtime Yes, not paid overtime No	19.6% 6.7% 73.1%
Hourly or Salaried	Hourly Salaried	98.5% 0.6%
Job Title	Staff RN Per Diem RN	95.1% 3.7%

Work Shift Information

Shift Length	12 hours 10 hours 8 hours 4 hours Other	83.1% 1.6% 12.2% 0.5% 1.9%
Regular or Extra Shift	Regular Extra/Overtime	97.7% 1.6%
Beginning Patients	Medical Surgical Days Evenings Nights Critical Care Days Evenings Nights	Mean (SD) 4.48 (1.43) 4.74 (1.54) 4.44 (1.32) 1.97 (.53) 1.50 (.58) 1.93 (.58)

Patients Out (Discharges, Transfers, Deaths)	Medical Surgical	Mean (SD)
	Days	1.23 (1.30)
	Evenings	0.61 (1.08)
	Nights	0.23 (0.49)
	Critical Care	
	Days	0.69 (1.46)
	Evenings	0.42 (2.89)
	Nights	0.42 (1.18)
Patients In (Admissions, Transfers)	Medical Surgical	Mean (SD)
	Days	1.22 (1.43)
	Evenings	1.26 (1.29)
	Nights	1.02 (1.13)
	Critical Care	
	Days	.51 (1.33)
	Evenings	.50 (1.00)
	Nights	.37 (0.78)

UAP Assigned with RN	Yes No	63.3% 35.4%
UAP Patient Assignment	Same patients as RN only RN's patients and others	0.8% 66.9%
Estimated % UAP Time to RN's Patients	10.51% (14.82%)	Range 0-100%
Unit Coordinator	Yes, entire shift Yes, partial shift No	71.1% 18.5% 9.3%
Designated Charge RN	Yes No	98.2% 0.8%
Charge Nurse had Patient Assignment	Yes No	42.4% 55.5%
Orienting Employees	RN UAP	47.7% 8.1%
RN as Preceptor	Yes	10.9%

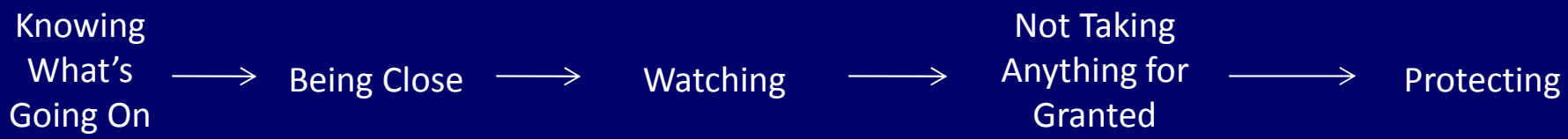
Staffing Contingencies and Emergency Situations

Sick Calls	Yes	51.0%
Failure to Show	Yes	5.00%
Left Early	Yes	8.51%
Late > 1 Hour	Yes	4.58%
Patient Emergencies	Yes, RN's patient(s) Yes, Other patient(s) No	14.94% 37.93% 47.12%
Emergency Descriptors	Confusion/Disorientation Cardiac Arrest Respiratory Arrest Dyspnea requiring Oxygen Fall Elopement Other	12.2% (n=75) 7.5% (n=46) 10.4% (n=64) 14.3% (n=88) 4.4% (n=27) 2.8% (n=17) 24.8% (n=153)

Model Testing Results

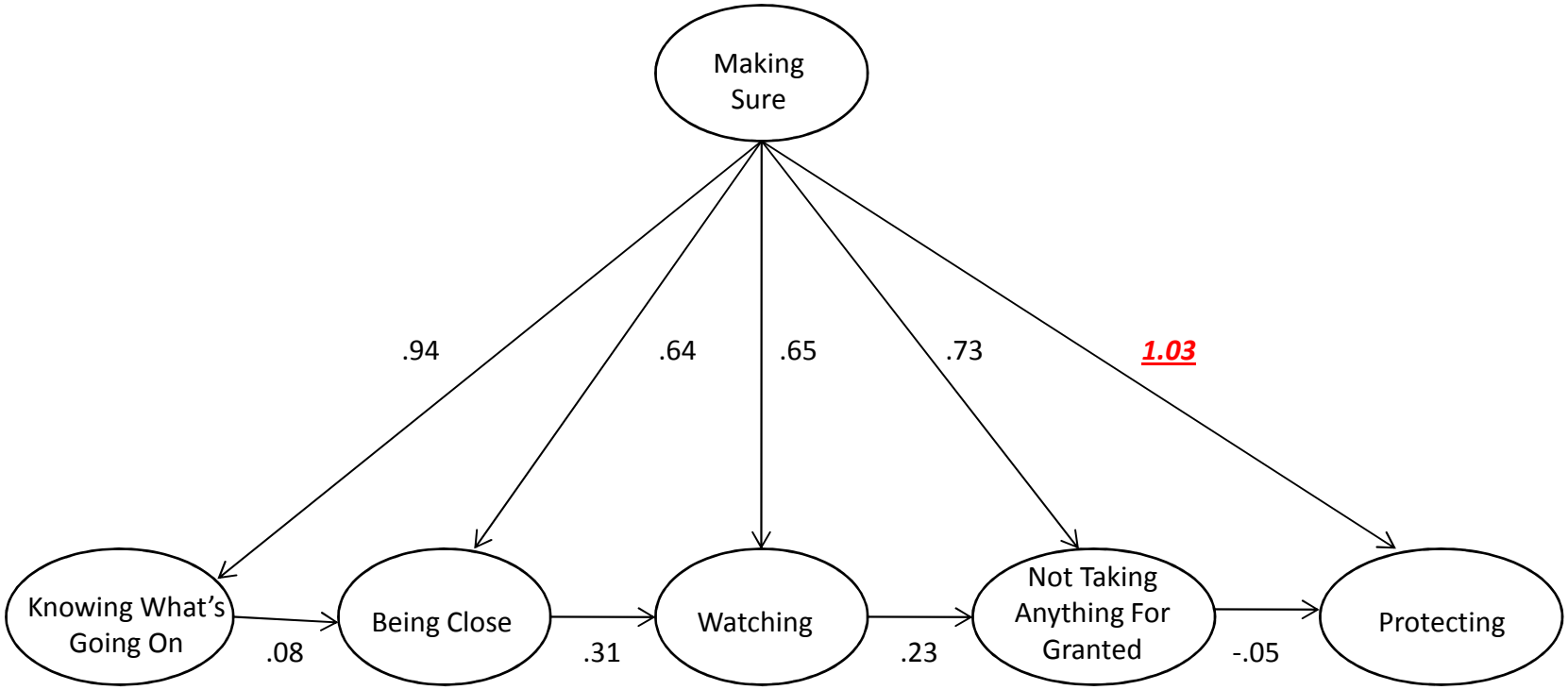
A Priori Model for Testing

Making Sure



Original Model from Grounded Theory Study

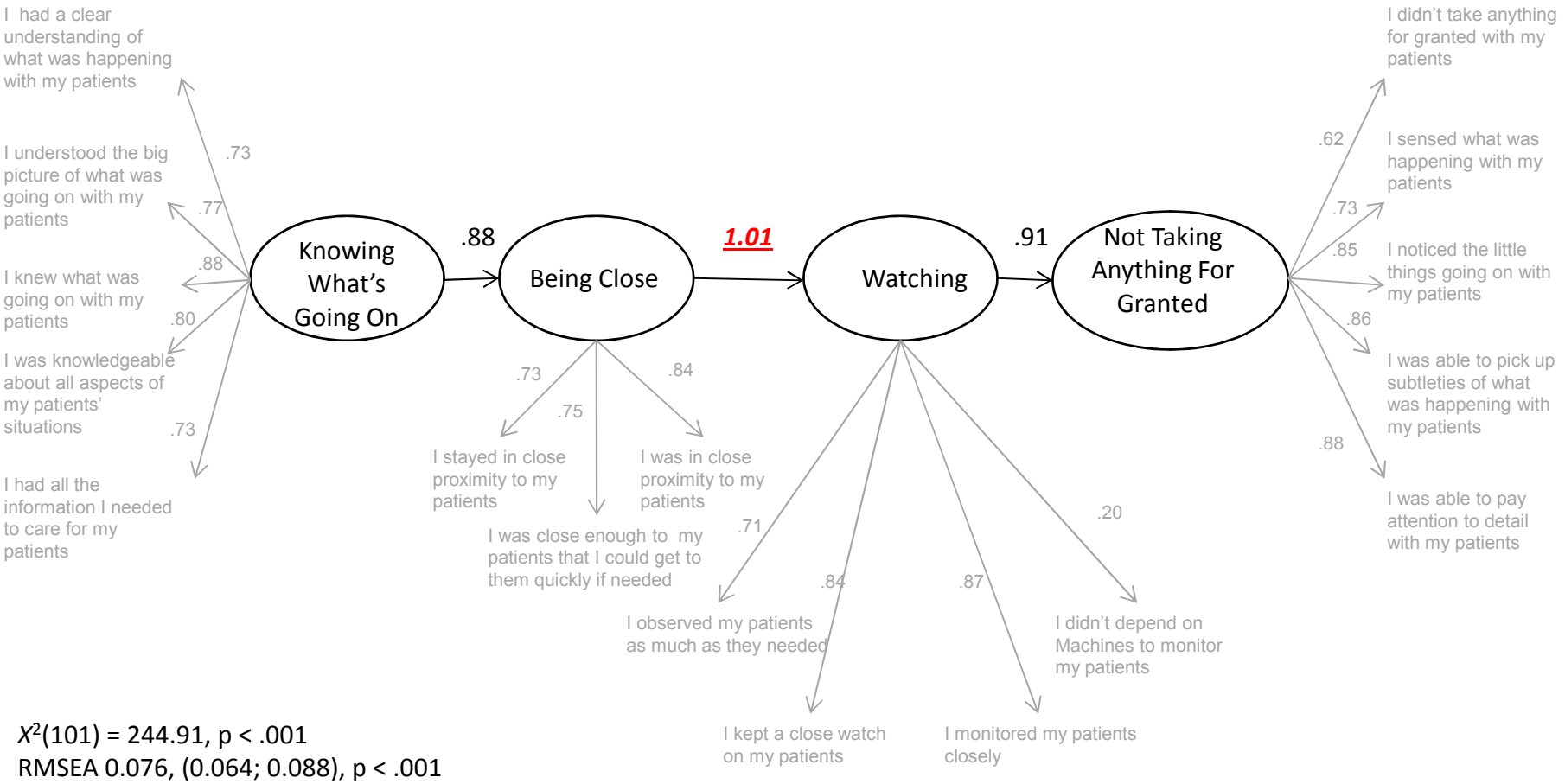
Medical-Surgical Assignment Pattern



$X^2(315) = 547.35$, $p < .001$
RMSEA 0.058, (0.050; 0.066), p = 0.053
SRMR 0.050
CFI .99

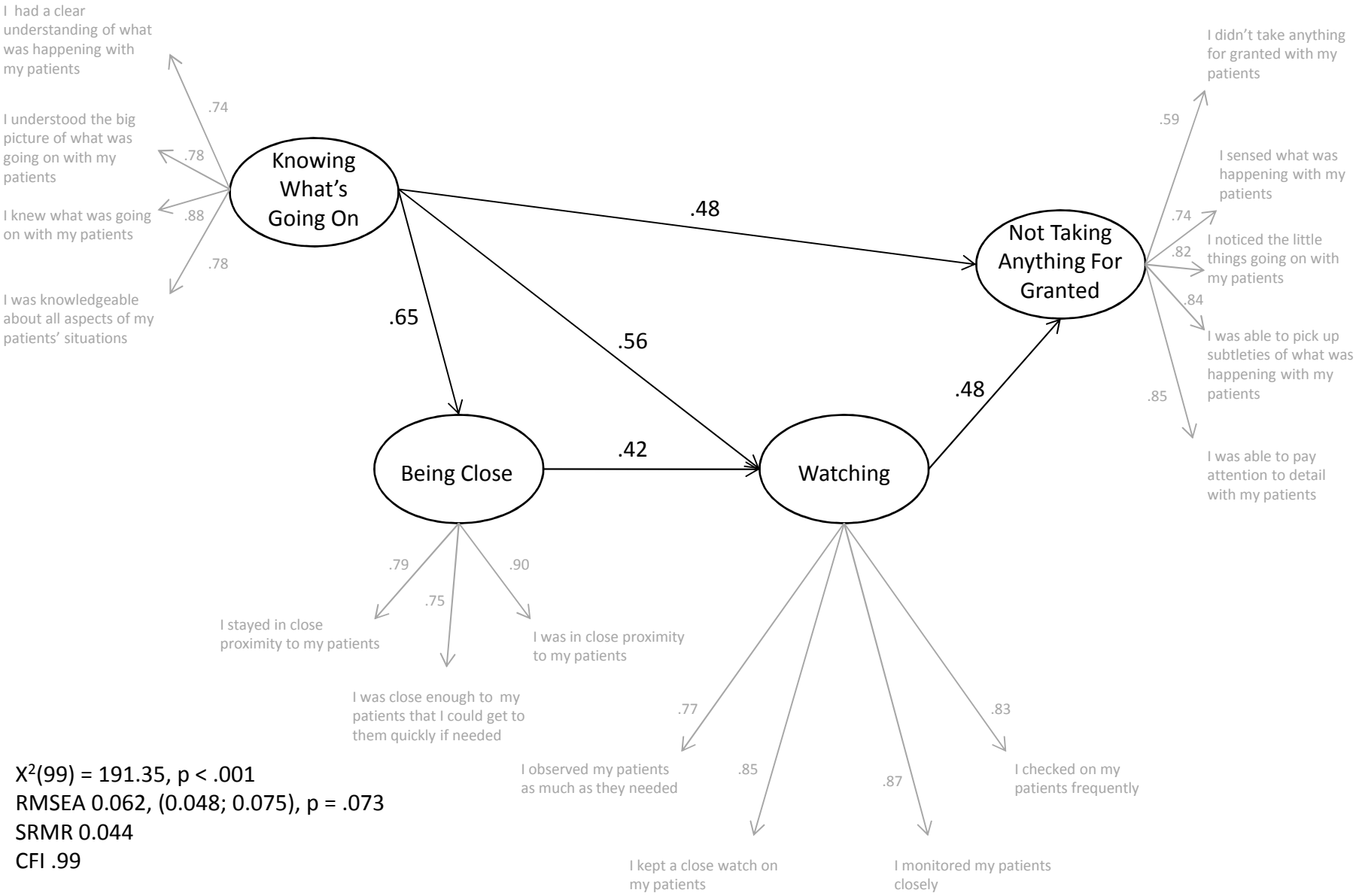
Basic Process Model

Medical-Surgical Assignment Pattern



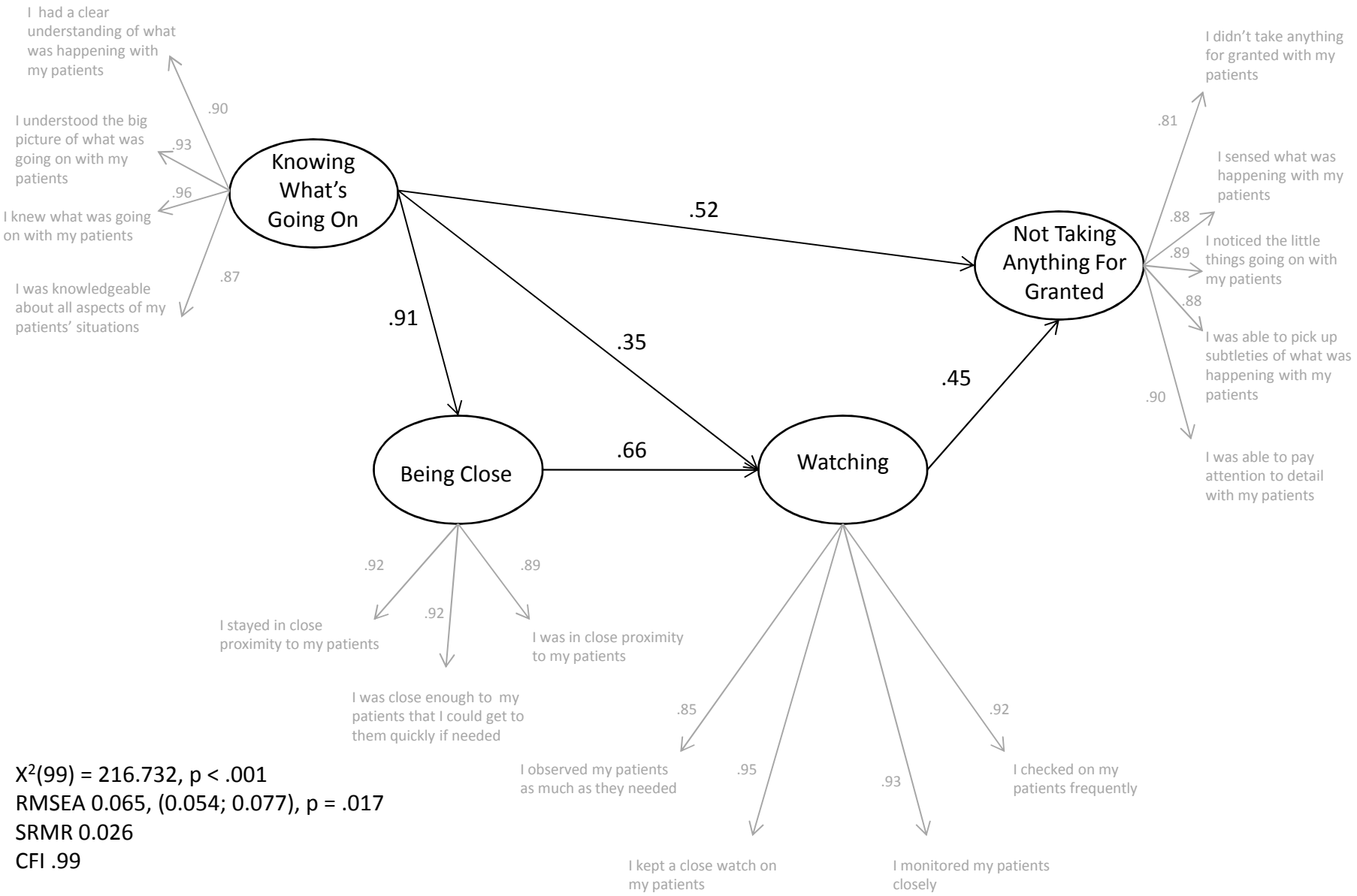
$X^2(101) = 244.91$, $p < .001$
RMSEA 0.076, (0.064; 0.088), $p < .001$
SRMR 0.091
CFI .98

Medical-Surgical Assignment Pattern



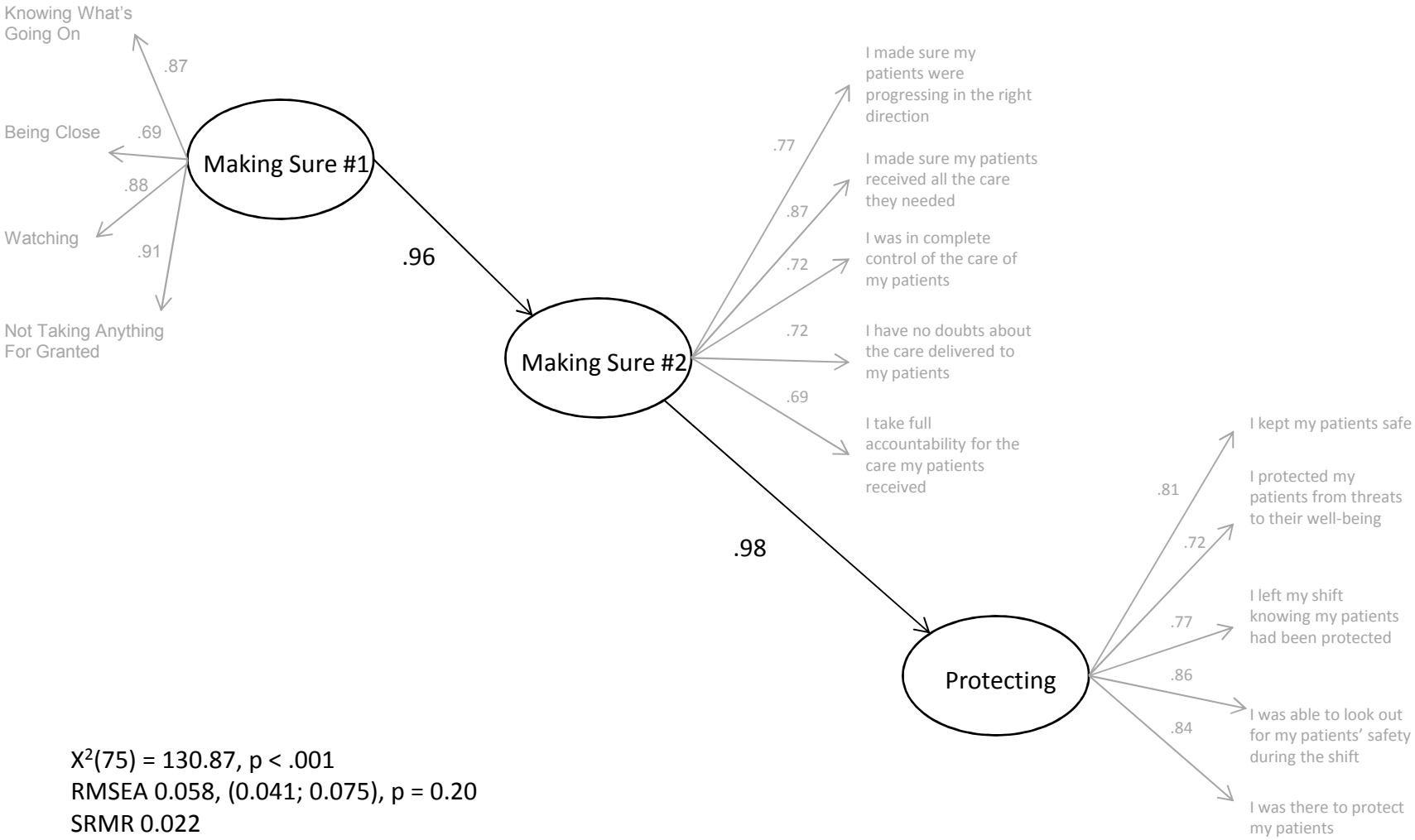
$X^2(99) = 191.35, p < .001$
RMSEA 0.062, (0.048; 0.075), p = .073
SRMR 0.044
CFI .99

Critical Care Assignment Pattern



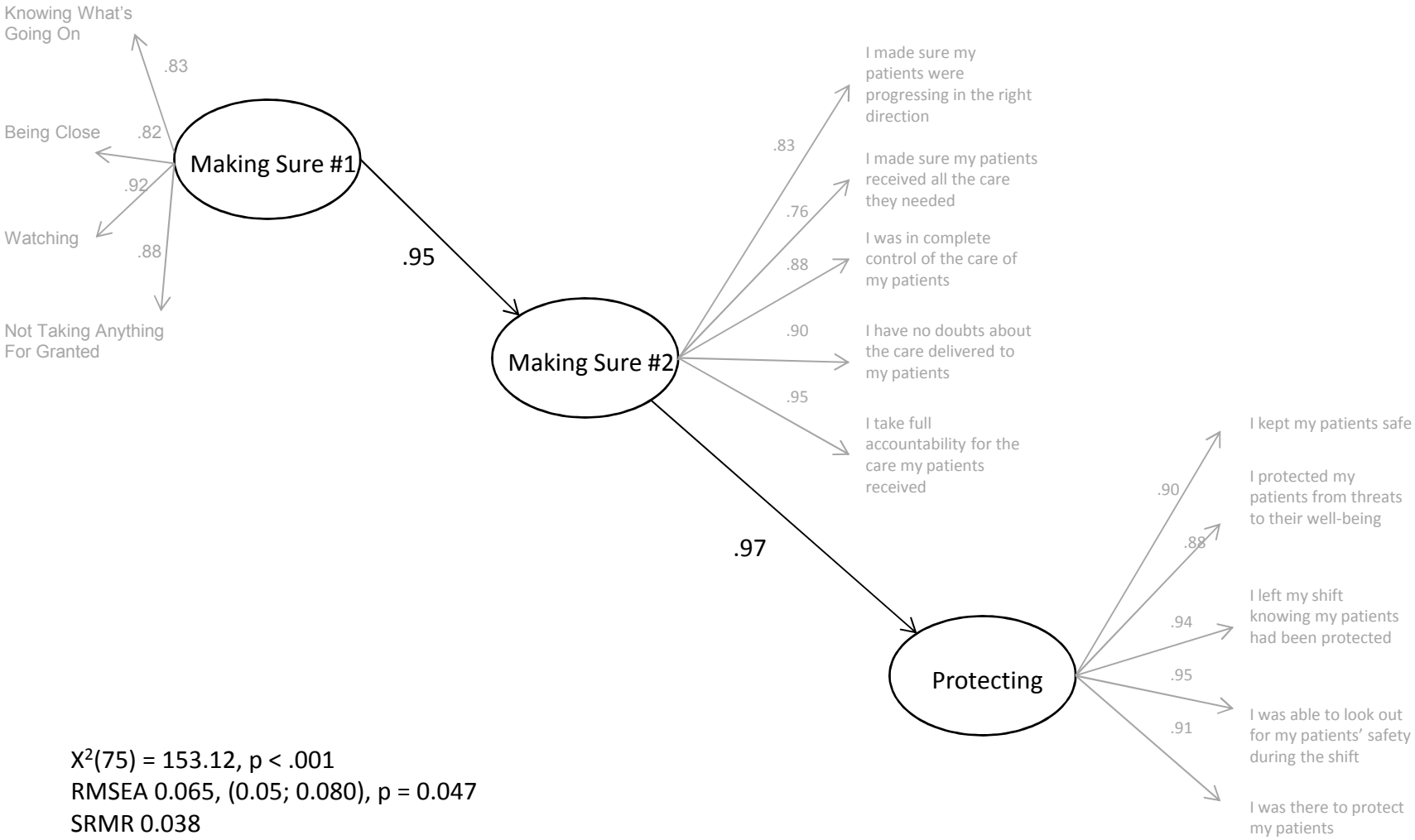
$X^2(99) = 216.732$, $p < .001$
RMSEA 0.065, (0.054; 0.077), p = .017
SRMR 0.026
CFI .99

Medical-Surgical Assignment Pattern



$X^2(75) = 130.87$, $p < .001$
RMSEA 0.058, (0.041; 0.075), p = 0.20
SRMR 0.022
CFI .99

Critical Care Assignment Pattern



$X^2(75) = 153.12$, $p < .001$
RMSEA 0.065, (0.05; 0.080), p = 0.047
SRMR 0.038
CFI .99

Conclusions, Implications, and Next Steps

The watching over process model was verified in model testing

Protecting is an outcome of nursing care on a single workshift

It is possible, and necessary, to study nursing care processes that occur on a single workshift

The watching over process is one nursing care process; other workshift based processes should be uncovered and tested using this same study approach

The available and close relationship dimensions of being close need further development

The watching over process needs study over the patient's episode of hospitalization

The process should be studied using nurse-patient dyads

Further analyses of the data set are necessary to identify factors that Impact the watching over process